IT - ITeS SSC
NASSCOM

Participant Handbook

Sector
IT-ITeS

Sub-Sector
IT Services

Occupation
IT Support Services/Helpdesk

Reference ID: **SSC/Q0110, Version 1.0**
NSQF Level 4

Domestic IT Helpdesk Attendant

Disclaimer

> " Skilling is building a better India.
> If we have to move India towards
> development then Skill Development
> should be our mission. "

Shri Narendra Modi
Prime Minister of India

Certificate

COMPLIANCE TO
QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

IT-ITeS Sector Skills Council NASSCOM

for

SKILLING CONTENT : PARTICIPANT HANDBOOK

Complying to National Occupational Standards of

Job Role/ Qualification Pack: Domestic IT Helpdesk Attendant QP No SSC/Q0110 NSQF Level 4

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Authorised Signatory
(IT-ITeS Sector Skills Council NASSCOM)

Acknowledgements

About This Book

The Book will be based on a Qualification Pack which contains National Occupational Standards (NOSs). Each NOS will be taken up as a 'UNIT' which will cover all the Performance Criteria and relevant knowledge and skills with respect to to the performance criteria covered.

The UNITs will further be divided into 'TOPICS' which will further be divided into SUB TOPICS as follows:

UNIT 1: ....
UNIT 2: ....
UNIT 3: ....

• Each UNIT covers 1 NOS
• Key Learning Outcomes are the Performance Criteria of the NOS along with relevant knowledge & skills

TOPIC 1.1: ....
TOPIC 1.2: ....
TOPIC 1.3: ....

• Lesson Plan
  • Objectives/Outcomes
  • Performance Ensuring Measures
  • Duration
  • Lab Requirements
• Suggested Delivery
• Trainer's Resource Material

SUB-TOPICS 1.1.1: .....
SUB-TOPICS 1.1.2: .....
SUB-TOPICS 1.1.3: .....
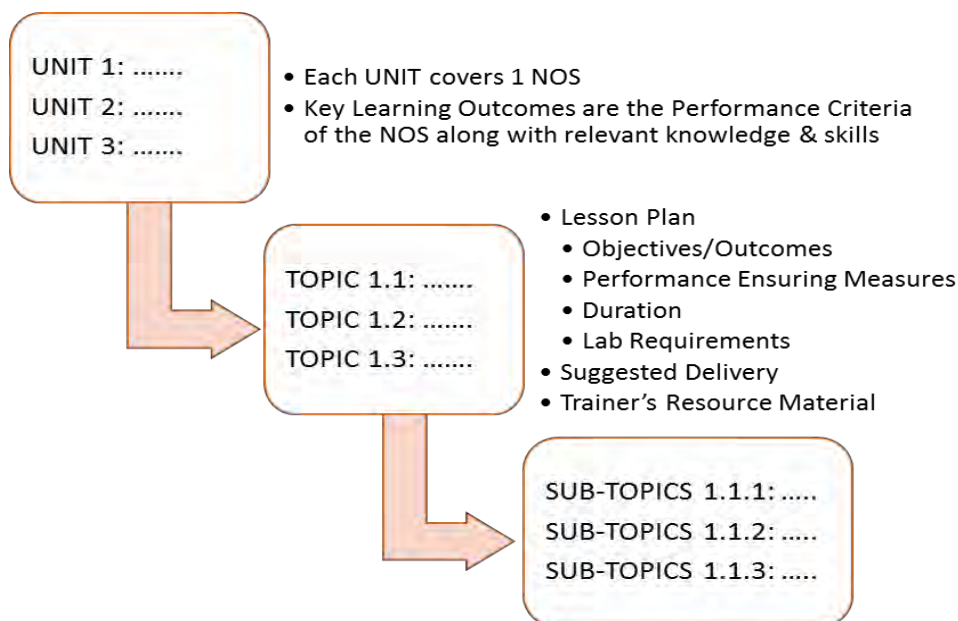
The Trainer's guide contains a facilitator's guide, overview of the various Topics and Sub-topics, the lesson plan, suggested delivery, suggested time and resources required for delivering a competency based training as per the requirements laid out in the Qualification Pack and the National Occupational Standards mentioned at the start of each Unit.

Symbols Used
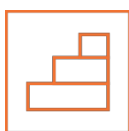
Key Learning Outcomes	Steps	Time	Tips	Notes	Unit Objectives

Table of Contents

1. Introduction

Key Learning Outcomes

At the end of the Introduction you will be able to:

1. Know about information technology enabled services (ITeS).

2. Explain growth of IT/ITeS industry in India.

3. Identify government initiatives in India.

4. Learn about the fundamentals of computer systems.

5. Demonstrate MS-office and data confidentiality.

6. Examine your typing skills.

Unit 1.1: IT-ITeS Industry an introduction

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Explain the evolution of the BPM Industry
2. Understand the structure of the IT-BPM industry
3. Resonate with the key trends in the BPM sector 4

1.1.1 Evolution and history of outsourcing

Provide a brief overview of the session.

Open up the discussion for the session and ask participants to share their thoughts on:

- Their understanding of the concept of outsourcing

- What enabled the organizations to outsource

Suggested discussion:

The concept of outsourcing started with the automobile industry, which outsourced component manufacturing to a number of suppliers and concentrated on in-house manufacturing for only a few high-value products and components. Since then, a number of other industries have started depending on vendors for various products.

Another trend that emerged in the late 1980s was that of corporate outsourcing. A number of noncore business processes, such as accounts, Human Resources (HR), and finance, were outsourced to vendors. This resulted in the emergence of the BPO or the IT-Enabled Services (ITeS) industry.

Fig 1.1.1

Fig 1.1.2

BPM Industry in India

The IT BPM industry has been fuelling India's growth story. In addition to contributing to the country's Gross domestic Product (GDP) and exports, the growth of the IT BPM industry has provided India with a wide range of economic and social benefits which includes creating employment, raising income levels, promoting exports. It has placed India on the world map with an image of a technological advanced and knowledge based economy. This sector attracts amongst the largest investments by venture capitalist and has been credited with enabling the entrepreneurial ventures of many in the country. The IT-BPM industry has almost doubled in terms of revenue and contribution to India's GDP over the last six years (2008-2013).

1.1.2 Structure of the IT BPM Industry

The organizations within the IT-BPM Industry are categorized along the following parameters

- Sector the organization is serving
- Type as well as range of offering the organization provides
- Geographic spread of operations and
- Revenues and size of operations

Multi-national Companies (MNCs): MNCs organizations have their headquarters outside India but operate in multiple locations worldwide including those in India. They cater to external clients (both domestic and/or global).

Indian Service Providers (ISP): ISPs are organizations that have started with their operations in India. Most of these organizations would have their headquarters in India while having offices at many international locations

While most have a client base, which is global as well as domestic, there are some that have focused on serving only the Indian clients.

Global In-house Centers (GIC): GIC organizations cater to the needs of their parent company only and do not serve external clients. This model allows the organization the option to keep IT Operations in - house and at the same time take advantage of expanding their global footprint and offering opportunities for innovation in a cost effective manner.

Sub-sectors within the IT-BPM Industry

The IT-BPM industry has four sub-sectors. The subsequent sections provide information and insights for a career in the Business Process Management sub-sector.

IT Services (ITS)

Custom Application Development (CAD)
Hardware Deployment and Support
Software Deployment and Support
IT Consulting
System Integration
Information Systems(IS) Outsourcing
Software Testing
Network Consultation and Integration
Education and Training

Business Process Management (BPM)

Customer Interaction and Support (CIS)
Finance and Accounting (F&A)
Human Resource Management (HRM)
Knowledge Services
Procurement and Logistics

IT-BPM Industry

Engineering and R&D (ER&D)

Embedded Services
Engineering Services

Software Products (SPD)

Offshore Product Development
Onshore Product Development

Fig: 1.1.3: Structure of the IT BPM Industry

1.1.3 Key Trends in the BPM sub-sector

The key trends observed in the BPM sub sector are summarized in the figure below and then explained in detail within the section.

Trend	Description
Verticalization	Developing industry specific solutions
Emergence of Big Data	Long term client relationships and strong data management and analytics capabilities
Continued locational advantage	Movement to Tier II cities to maintain cost advantage
Emergence of knowledge services specialization	Building capabilities in core verticals by adding high-end services such as analytics and primary and secondary research
Increasing use of social media and internet in CRM	Organizations look to engage with their customers through platforms like Facebook, Twitter and in-grown social media sites

Fig 1.1.4: BPO Strategy Summit, 2012; Delhi

Verticalization: With the maturity of the BPM sub-sector, the focus of organizations has now shifted to verticalized offerings with end to end solutions across standardized platforms in major industries. As a result of this, there is a lot of Mergers and Acquisition (M&A) activity in the industry, where organizations are aiming to acquire these verticalized skills and integrate them into their own offerings.

Emergence of Big Data: The emergence of big data is characterized by technological advancements, large number of mergers and acquisitions and firms venturing into integrated solutions including IT and analytics. Therefore value creating business driven offerings, is seen as a major emerging trend in the BPM sub-sector. Armed with long term client relationships and transactional data warehouses coupled with talent expertise, these service providers are embarking on creating sustainable value addition for their clients. Big data/analytics presents a USD 25 billion opportunity by 2015, a CAGR of 45 per cent (2011-2015).

Continued locational advantage: India leads the way as the most lucrative location for the global IT industry performing well on various parameters like financial attractiveness, skill availability and business environment. While traditionally, 70% of the industry is located in Tier I cities, focus on controlling costs has created a gradual move to have centers in Tier II cities as well, thus widening the talent pool and spread.

Emergence of Knowledge Services specialization: Knowledge Services Outsourcing is seen as the next big thing and the fastest growing domain in the BPM sub-sector based on its revenue contribution. It accounts for about 18% share of BPM exports, close to USD3.2 Billion in FY2013. As worldwide markets become more knowledge intensive, India becomes a preferred destination to outsource these core elements based on its abundance of talent pool. Legal Process Outsourcing (LPO), Data Analytics, and Risk Management are some of the fastest growing KPO segments. There is also a growing recognition of Indian Service Providers (ISPs) being able to provide such value-add services.

Increasing use of Social Media and Internet for Customer Relationship Management (CRM): With the emergence of new technology platforms, unified communications systems, collaboration and social networking, multiple channels of integrated communications are now changing the rules of communicating with the customers, especially with the emergence of channels like email, web chats and social media sites. Social media interactions are gaining importance as many organizations look to engage with their customers through platforms like Facebook, Twitter and Ingrown social media sites.

1.1.4 Check Your Understanding

1. What are the four main sub sectors in the IT BPM industry?
2. Which one of the following is NOT a key trend in the BPM industry?
   a. Verticalization
   b. Knowledge service specialization
   c. Emergence of big data
   d. Saturation

1.1.5 Summary

- The IT BPM industry has not only contributed to India's GDP and exports but has also provided a wide range of socio-economic benefits such as creating employment, raising income levels and promoting exports, etc.
- Business Process Management (BPM) sub-sector of Indian IT-BPM industry has generated revenues of USD19 Billion in FY2013 and providing direct employment to nearly 1 million people.
- NASSCOM estimates that the BPM sub-sector, which is potentially pegged as a USD65 billion industry by 2020, will contribute up to 9 per cent of India's GDP and 30 million employment opportunities.
- The organizations within the IT-BPM Industry are categorized along the following parameters
  o Sector the organization is serving
  o Type as well as range of offering the organization provides
  o Geographic spread of operations and
  o Revenues and size of operations
- The four main sub-sectors within the IT BPM industry are:
  1. IT Services (ITS)
  2. Business Process Management (BPM)
  3. Engineering and R&D (ER&D)
  4. Software Products (SPD)
- The key trends in the BPM subsector are as below:
  o Verticalization
  o Emergence of big data
  o Continued locational advantage
  o Emergence of knowledge services specialization
  o Increasing use of social media and internet for CRM

1.1.6 Glossary of terms

Definitions

Keywords /Terms	Description
Scope	Scope is the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on the quality of performance required.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational Context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical Knowledge is thespecificknowledgeneededto accomplish specific designated responsibilities.
Core Skills/Generic Skills	Core Skills or Generic Skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Helpdesk	Helpdesk is an entity to which the customers will report their IT problems. IT Service Helpdesk Attendant is responsible for managing the helpdesk.
IT-ITeS	Information Technology - Information Technology enabled Services
BPM	Business Process Management
BPO	Business Process Outsourcing
KPO	Knowledge Process Outsourcing
LPO	Legal Process Outsourcing
IPO	Information Process Outsourcing
BCA	Bachelor of Computer Applications
B.Sc.	Bachelor of Science
OS	Occupational Standard(s)
NOS	National Occupational Standard(s)
QP	Qualifications Pack
UGC	University Grants Commission
MHRD	Ministry of Human Resource Development
MOLE	Ministry of Labour and Employment

NVEQF	National Vocational Education Qualifications Framework
NVQF	National Vocational Qualifications Framework
NSQF	National Skill Qualification Framework

Nomenclature for QP & NOS

Qualifications Pack

9 characters

SSC/Q0101

SSC denoting **S**oftware &**S**ervices **C**ompanies (IT-ITeSindustry)

Q denoting Qualifications Pack

QP number (2 numbers)

National Occupational Standard

9 characters

SSC/N0101

SSC denoting **S**oftware &**S**ervices **C**ompanies (IT-ITeSindustry)

N denoting National Occupational Standard

NOS number (2 numbers)

Occupational Standard

9 characters

SSC/N0101

SSC denoting **S**oftware &**S**ervices **C**ompanies (IT-ITeSindustry)

O denoting Occupational Standard

OS number (2 numbers)
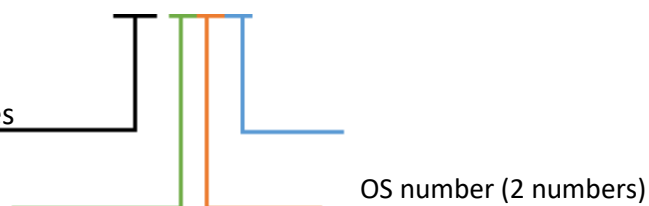
Nomenclature for QP & NOS UNITS

It is important to note that an OS unit can be denoted with either an '**O'** or an '**N'**.

- If an OS unit denotes 'O', it is an OS unit that is an international standard. An example of OS unit denoting 'O' is SSC/**O**0101.

- If an OS unit denotes '**N'**, it is an OS unit that is a national standard and is applicable only for the Indian IT-ITeS industry. An example of OS unit denoting '**N'** is SSC/N0101

The following acronyms/codes have been used in the nomenclature above:

Sub-Sector	Range of Occupation numbers
IT Service(ITS)	01-20
Business Process Management (BPM)	21-40
Engg. and R&D(ERD)	41-60
Software Products(SPD)	61-80

Sequence	Description	Example
Three letters	Industry name (Software&Service Companies)	SSC
Slash	/	/
Next letter	Whether **Q**P or **N**OS	N
Next two numbers	Occupation Code	01
Next two numbers	OS number	01

Notes

_____
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Unit 1.2: IT Services Subsector

Unit Objectives

At the end of this unit, you will be able to:

1. Explain the evolution of the BPM Industry
2. Understand the structure of the IT-BPM industry
3. Resonate with the key trends in the BPM sector 4

1.2.1 Introduction to IT Services Sub Sector

IT-BPM market, a USD 118 billion market in India in FY2014, is a leading contributor to the services industry in India with respect to employment and revenue. It accounts for 38 per cent of the country's total services exports and contributes to 8.1 per cent of India's GDP2. It also accounts for INR 1,911 billion in FY2014. The IT Services subsector is a major contributor to the overall IT-BPM Industry.

IT Services (ITS) sub-sector offers services to create and manage information for business functions through host of activities that include consulting, systems integration, IT outsourcing/managed services/hosting services, training and support/ maintenance.

The sub-sector has evolved as a major contributor to India's GDP and plays a vital role in driving economic growth in terms of employment, export promotion and revenue generation.

1.5 million — The number of people directly employed in ITS sub-sector	**>14 per cent** — Growth in IT service exports in FY 2014
1600 + — Number of Organisations in the ITS sub-sector	**1** — India's position in IT global landscape
USD 52 billion — Total amount of ITS sub-sector Export Revenues IN FY 2014	**60 per cent** — Total contribution of ITS sub-sector in industry Exports
9.7 per cent — Growth of the ITS sub-sector in INR terms in the domestic market in FY 2014	

Fig 1.2.1

The worldwide IT Services market stood at USD 655 billion in 2013. The Indian IT Services exports form the largest and fastest growing segment of the IT services with a growth rate of

>14 per cent in FY 2014. IT Services export constituted over half of the entire export of the IT Industry. Even within the domestic market, IT services is the fastest growing segment in the Indian domestic market, growing by 9.7 per cent to reach INR 727 billion, driven by IS outsourcing, cloud services and increasing adoption from all customer segments government, enterprise, consumers and small and medium businesses. There are over 1600 companies providing IT services in the country with the top 5 comprising around 60 per cent of the total revenue from the industry.

The sub-sector has established a record as a major contributor to the country's GDP as well as penetrated into many large sectors - established as well as upcoming like healthcare, media, education and retail. This has ensured that the sub-sector is a field in demand, both in the present and the future. With an increased focus on optimising efficiencies, companies in all the sectors see value in leveraging IT to manage their business better and are increasing their IT investments.

The wide scope of the services in this sub-sector creates a requirement for a large variety of skills. This reflects on the range of opportunities available for building a career in IT Services to a varied group of people and the industry continues to be amongst the most sought, after for many young and aspiring individuals.

1.2.2 Profile of IT Services Sub Sector

Vertical Profile:

BFSI is the largest driver in this space claiming half of the entire IT Services export. Other industry Verticals Like Healthcare, Retail and Media have started making big investments in IT services and are turning into key verticals for the IT Services sub-sector. An illustrative view of the vertical and horizontal profiles is shown below.
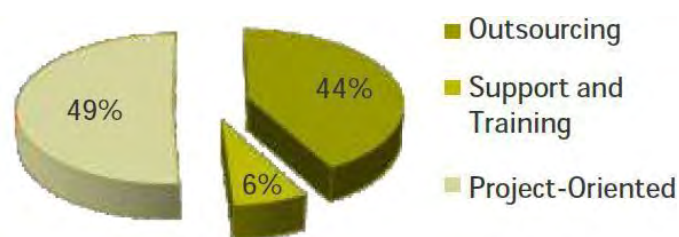

Fig 1.2.2

Horizontal Profile:

The IT Services sub-sector started off in India with a focus on basic application development and maintenance. The sub-sector has now grown and includes significant footprints in traditional segments which include custom application development, application management, IS

outsourcing and software testing. With time, the sector has expanded to provide end-to-end IT solutions and includes consulting, testing services, infrastructure services and system integration in the offering.

Customer Profile:

After starting off, the IT Services sub-sector, served mostly the North American market until the 1990s.While North America continues to be a major importer of Indian IT services, the

sub-sector has witnessed entry into other markets, in order to mitigate risk as well as to expand markets thus servicing clients in a greater number of geographical areas like

Latin America, the Asia Pacific and Europe.

The client base in these markets is a healthy mix between BFSI, Manufacturing, Retail, Telecom and all key Industry verticals.

Fig 1.2.3

1.2.3 Key Trends of IT Services Sub Sector

The IT-BPM industry is standing at a watershed moment in history. In FY 2014, the industry achieved a stellar landmark of crossing US 118 billion in revenues. However, with the industry slowly reaching a stage of maturity and with a business model closely aligned to exports, it faces the brunt of the economic shake-up like the one observed in 2008, which redefined the economic order amongst nations.

While the recovery has gathered pace in the last few months, companies are becoming increasingly conscious that in the globally connected world, the "new normal" will be characterised by business volatility. The ups and downs will be more frequent and companies need to learn how best to manage this volatility.
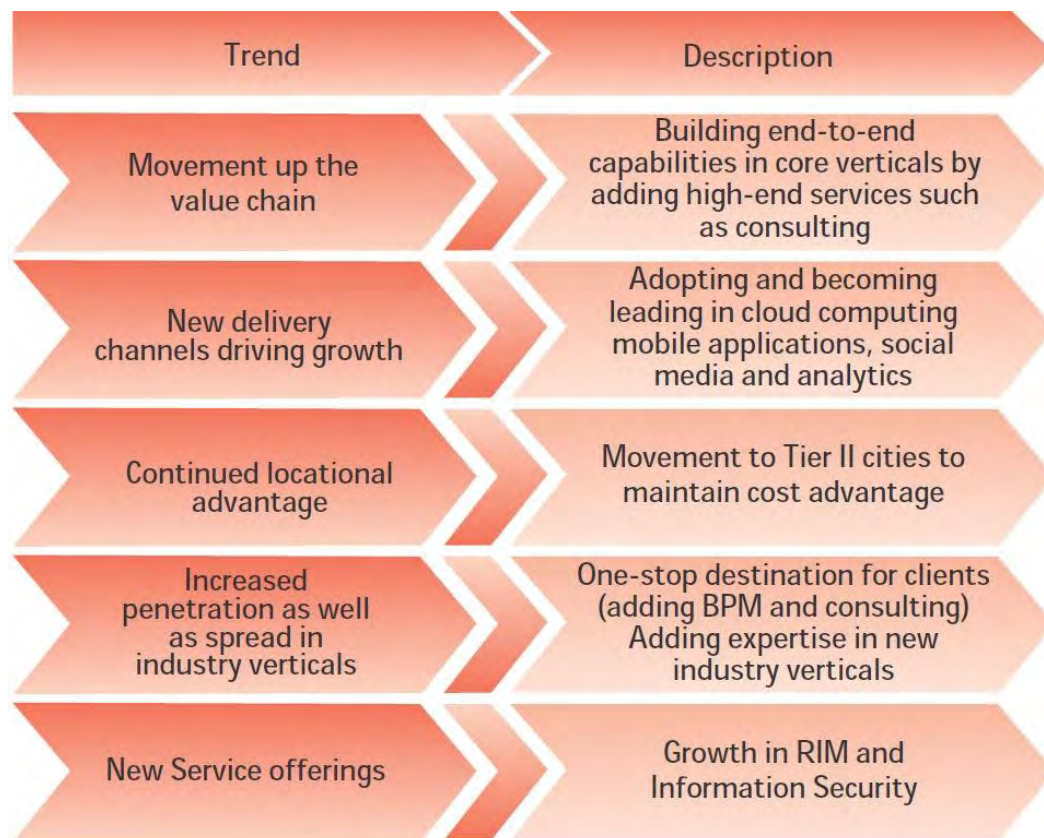
Trend	Description
Movement up the value chain	Building end-to-end capabilities in core verticals by adding high-end services such as consulting
New delivery channels driving growth	Adopting and becoming leading in cloud computing mobile applications, social media and analytics
Continued locational advantage	Movement to Tier II cities to maintain cost advantage
Increased penetration as well as spread in industry verticals	One-stop destination for clients (adding BPM and consulting) Adding expertise in new industry verticals
New Service offerings	Growth in RIM and Information Security

Fig 1.2.4

Some of the key trends which are leading the growth in the sub-sector include:

New Delivery Channels Driving Growth:

Growth of the different delivery channels like cloud computing, mobile applications, social media and data analytics have provided the industry with new opportunities and expanded the market, particularly for the small and medium scale businesses.

Continued Locational Advantage:

India leads the table as the most lucrative location for IT Services, performing well on various parameters like financial attractiveness, skill availability and business environment4. While traditionally, 70 per cent of the Industry is located in Tier I cities, focus on controlling costs has created a gradual move to have centres in Tier II cities as well, thus widening the talent pool and spread.

Increased Penetration as well as Spread in Industry Verticals:

The BFSI sector has been the key business driver for the industry. Increasing penetration of new industry verticals like Healthcare, Utilities, and Retail in addition to growing ones like Media, Government, and Manufacturing is expected to happen, increasing the total market share. Indian IT service offerings have evolved from application development and maintenance, to emerge as full-service players providing testing as a services (TaaS), infrastructure services, consulting and system integration. Within that, IT outsourcing exhibited strong growth, in line

with global trends, driven by increased spending in remote infrastructure management, application management, testing and SOA segments. SMAC (Social Media, Mobility, Analytics and Cloud) gained credence this year as it offered clients access to best-in-class process management at reduced capital expenditure levels.

New Services:

Growth in new areas of operations like IS Outsourcing (ISO)/Remote Infrastructure Management (RIM) and Information Security is being touted as the next growth driver for IT Services. IMS professionals manage an enterprise's networks, servers, storage, etc. Advancements in technology have led to these services being increasingly off-shored – a trend that is being welcomed by all major IT-BPM organisations in the Industry.

In FY2014, ISO grew by 18 per cent and it is being touted as the one of the growth

engines for IT Services sub-sector5

Unit 1.3: Introduction to Information Technology

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Expain the history and Generation of Computer
2. Know about the basic terminologies of Computer
3. Explain the Architecture of computer
4. Types of Computer
5. Advantages & Disadvantages of Computer

1.3.1 History of Computers

The word 'computer' is an old word that has changed its meaning several times in the last few centuries. Originating from the Latin, by the mid-17th century it meant 'someone who computes'. The American Heritage Dictionary (1980) gives its first computer definition as "a person who computes." The computer remained associated with human activity until about the middle of the 20th century when it became applied to "a programmable electronic device that can store, retrieve, and process data.

Functions of Computer

A computer has four functions:

a. Accepts data   -   **Input**

b. Processes data - **Processing**

c. Produces output - **Output**

d. Stores results -   **Storage**

Input (Data):

Input is the raw information entered into a computer from the input devices. It is the collection of letters, numbers, images etc.

Process:

Process is the operation of data as per given instruction. It is totally internal process of the computer system.

Output:

Output is the processed data given by computer after data processing. Output is also called as Result. We can save these results in the storage devices for the future use.

Computer System

All of the components of a computer system can be summarized with the simple equations.
COMPUTER SYSTEM = HARDWARE + SOFTWARE+ USER

• Hardware = Internal Devices + Peripheral Devices
All physical parts of the computer (or everything that we can touch) are known as Hardware.
• Software = Programs
Software gives "intelligence" to the computer.
• USER = Person, who operates computer.

1.3.2 Generations of Computers

First Generation (1940-56):

The first generation computers used vaccum tubes & machine language was used for giving the instructions. These computer were large in size & their programming was difficult task. The electricity consumption was very high. Some computers of this generation are ENIAC, EDVAC, EDSAC & UNIVAC-1.

Second Generation(1956-63):

In 2nd generation computers, vaccum tubes were replaced by transistors. They required only 1/10 of power required by tubes. This generation computers generated less heat & were reliable. The first operating system developed in this generation.

The Third Generation(1964-71):

The 3rd generation computers replaced transistors with Integrated circuit known as chip. From Small scale integrated circuits which had 10 transistors per chip, technology developed to MSI circuits with 100 transistors per chip. These computers were smaller, faster & more reliable.

High level languages invented in this generation.

The fourth Generation(1972- present):

LSI & VLSI were used in this generation. As a result microprocessors came into existence. The computers using this technology known to be Micro Computers. High capacity hard disk were invented. There is great development in data communication.

The Fifth Generation (Present & Beyond):

Fifth generation computing devices, based on artificial intelligence, are still in development, though there are some applications, such as voice recognition, that are being used today. The use of parallel processing and superconductors is helping to make artificial intelligence a reality. Quantum computation and molecular and nanotechnology will radically change the face of

computers in years to come.

1.3.3 Architecture of Computers
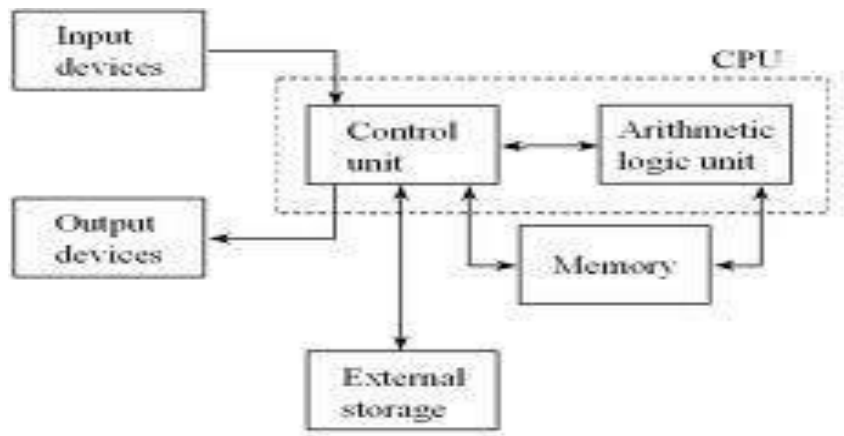
Fig 1.7

Input Devices: Those devices which help to enter data into computer system. Eg. Keyboad, Mouse, Touchscreen, Barcode Reader, Scanner, MICR, OMR etc.

Fig 1.3.3.1 Bar code Reader   Fig 1.3.3.2 MICR used in Bank   Fig 1.3.3.3 OMR
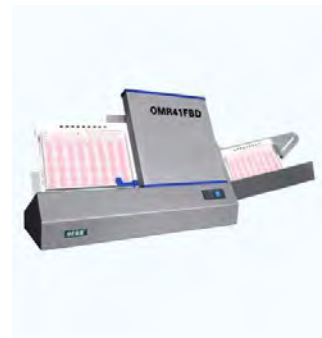
Output Devices: Those devices which help to display the processed information. Eg. Monitor, Printer, Plotter, Projector

Fig 1.3.3.4 Printer   Fig 1.3.3.5 Plotter   Fig 1.3.3.6 Projector

Central processing unit (cpu)

The main component to make a computer operate is the computer chip or microprocessor. This is referred to as the central processing unit (cpu) and is housed in the computer case. Together, they are also called the cpu. It performs arithmetic and logic operations. The cpu (central processing unit) is the device that interprets and executes instructions.

1.3.4 Windows and its components

The main components of Windows when you start your computer are the Desktop, My Computer, Recycle Bin, Start Button, Taskbar, and shortcutsto applications.
After opening an application, you will also have a window with an active application which will appear in your desktop and taskbar.
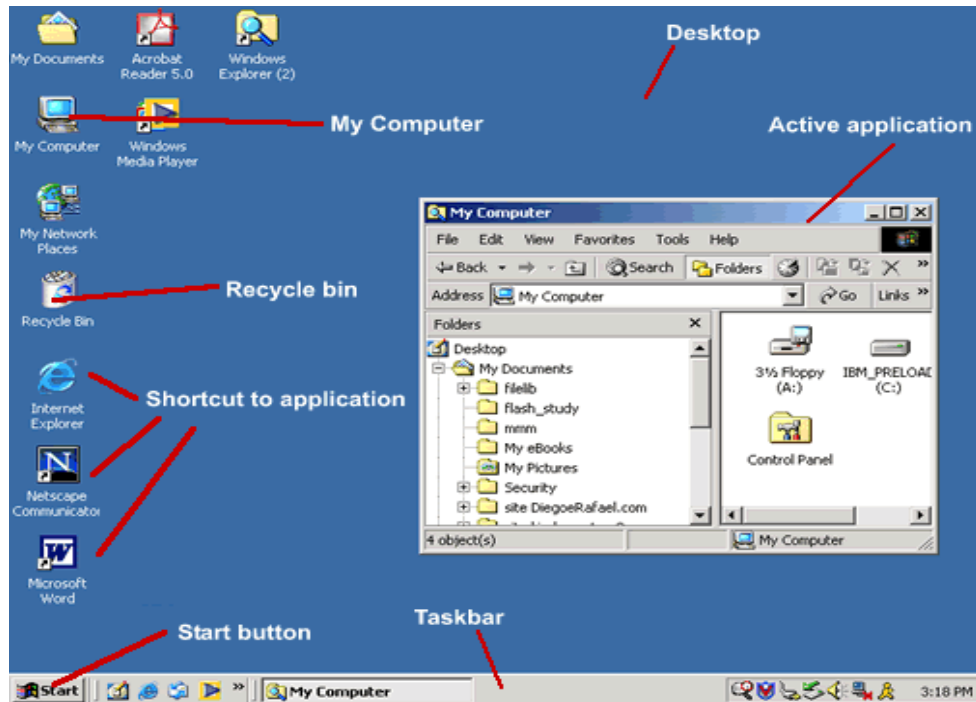
Fig 1.3.4.1

Desktop

The **Desktop** is the very first screen you see after Windows starts. There you find the folders: My Documents, My Computer, the Recycle Bin and any Shortcuts for applications and files that you have created.

My Computer

When you double-click on the **My Computer** icon on the desktop, it will open a window similar to the one shown below, where you can navigate between the computer's drives and Control Panel tools.
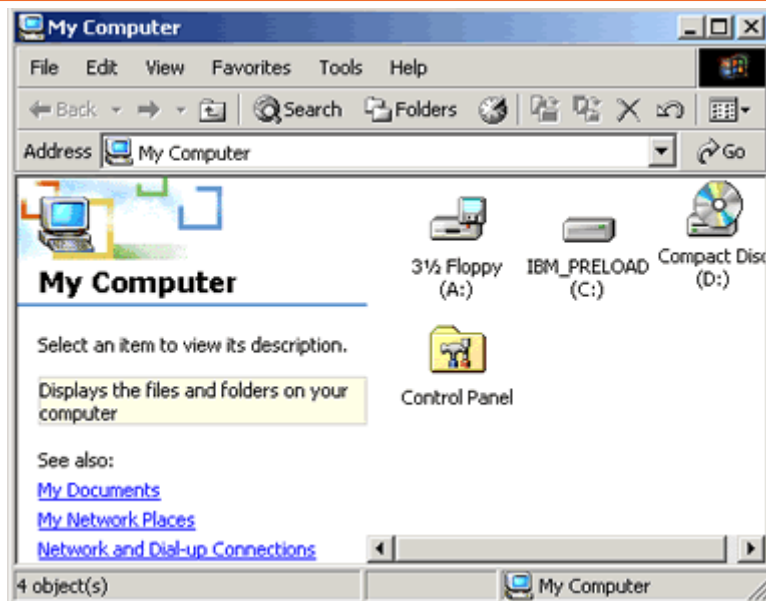
Fig 1.3.4.2

Recycle Bin

When you delete a file from your computer's hard drive, it is removed to the folder called **Recycle Bin.** Files deleted from your hard drive are still available for restoring if needed, unless you empty your Recycle Bin.

To restore the files, open the Recycle Bin folder by double-clicking the icon on your desktop, select the file and then select **Restore.**

- To clear the Recycle Bin, select **Empty Recycle Bin** and the files will be permanently removed from your computer.
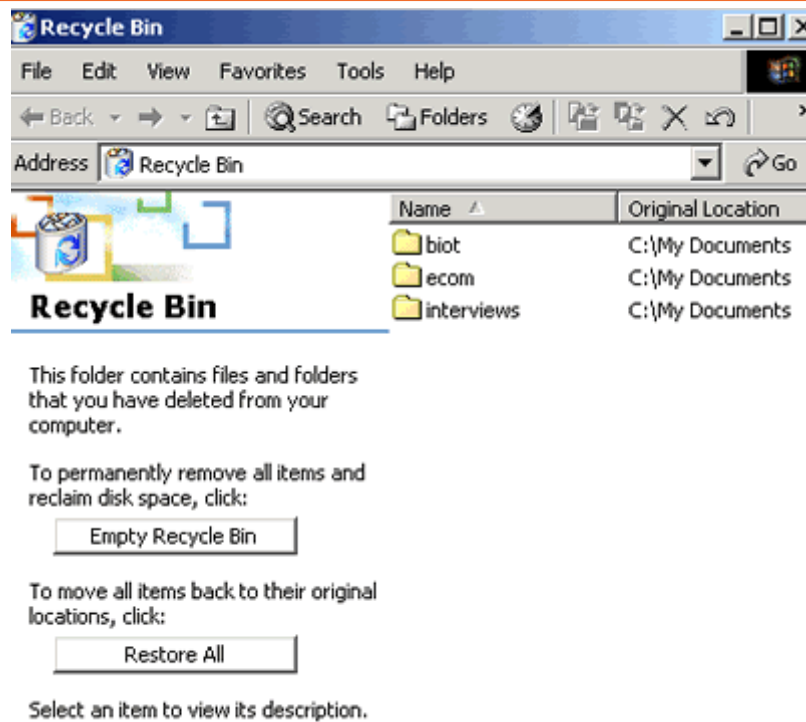
Fig 1.3.4.3

Note that the recycle bin does *not* apply to the contents of a floppy disk. If you delete a file from a floppy disk, it is permanently deleted, and you cannot restore it.

Minimize/Maximize/Close Buttons

In the top-right corner of your document are the **Minimize/Maximize/Close** buttons.

The first one when clicked minimize your screen, sending it to the taskbar. The second one maximize your screen, filling all desktop with the document you are working with.The last button is used to close your document.

It is best practice to work with your document window maximized.

Start Menu

By clicking the **Start** button, in the very bottom-left corner of the screen, a vertical window will come up with the **Start Menu**.

The list of submenus in the pop-up window let you navigate and select the application you want to run.
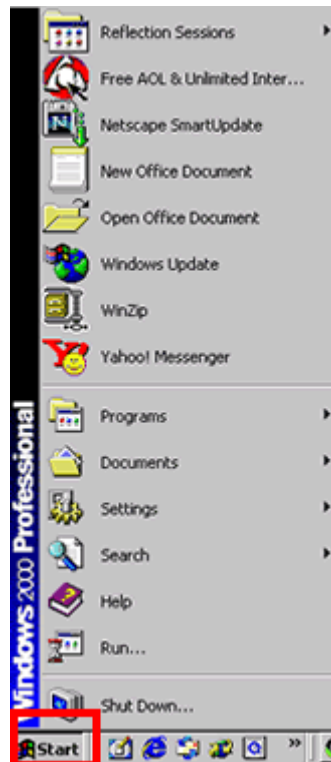
Fig 1.3.4.4

Taskbar

The **Taskbar** is the row at the bottom of the Windows screen where all currently open applications or files are listed.

The taskbar is used to select a file or application that is already opened or to put an application in the foreground.

To put an application in the foreground, just click on the icon of the application in the taskbar. Another way to put an application in the foreground when more than one is in use is to hold the ALT button and then click TAB on your keyboard to see all the open applications; you will need to hold the ALT button and continue pressing TAB to go through each application until you come to the one you want to use.

Shortcut

A shortcut creates a button or icon which typically stays on the desktop and when clicked, quickly allows you to start a program or open a file without having to go to its permanent location on your computer.

To create a shortcut,open the Windows Explorer or go to the **Start** menu, select the file or program you want to create a shortcut for, place the cursor on the icon for the file, then right-click and select **Create Shortcut** from the menu that pops up. The shortcut file will be created. After that, you drag the shortcut file to the desktop and whenever you click on it, it will open the application or document related to the shortcut.
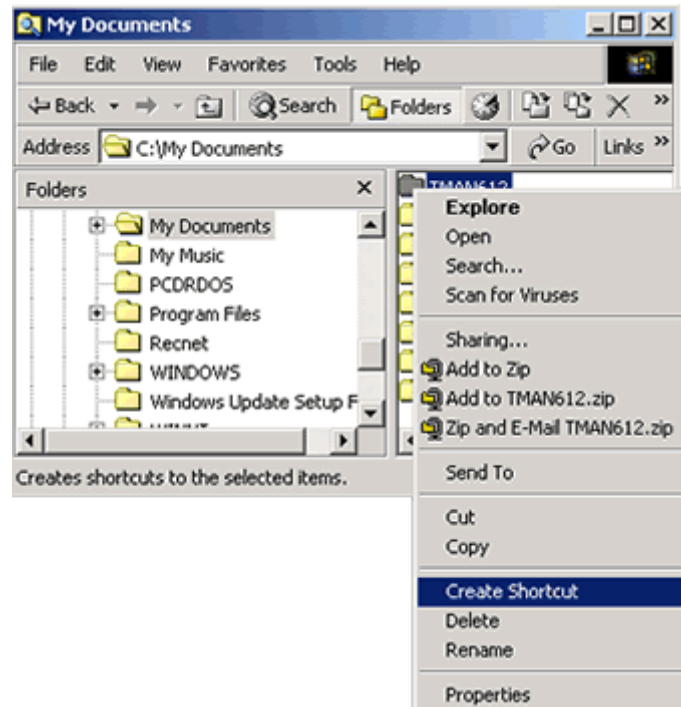
Fig 1.3.4.5

Right and Left Click

To use the mouse, usually you **click** the **left** button. However you can also **right-click** to display a hidden menu related to the object you are in when clicking. This menu can vary depending on which application you are using.

With right-clicking, you can operate different functions such as:

- Copy/cut or paste a text, file, or folder.
- Rename or delete a file or folder.
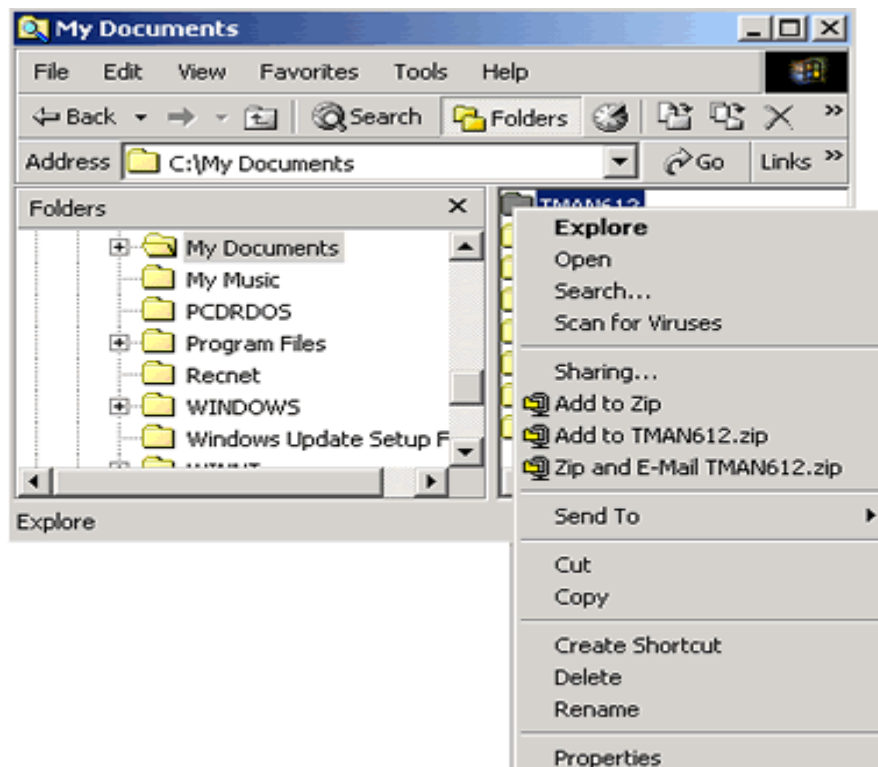
Fig 1.3.4.6

Multitasking

The term **multitasking** means to be running or working in two or more applications at the same time. You can be more productive by multitasking. For instance, you can download files from the Internet while managing your files or word processing.
In order to switch between the applications you can use the Taskbar, clicking on the icon of the application you want to have in the foreground.

Highlight

Put your cursor at the beginning of a word or sentence you want to highlight, then click and drag your mouse to the end of the selection.

Fig 1.3.4.7

Copy/Cut and Paste Text

Copy is used when you want to have an area of text from a document twice at the same document or in another document. You first select the area of the text by highlighting it and then press CTRL+C, or go to Edit menu and select Copy.
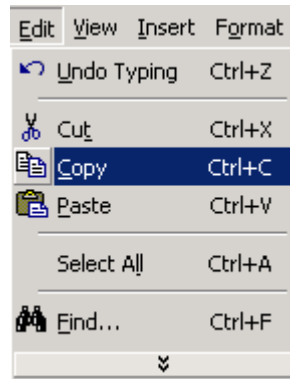
Fig 1.3.4.8

Cut is used to delete an area of text from a document. You first select the area of the text by highlighting it and then press CTRL+X, or go to **Edit** menu and select **Cut**.
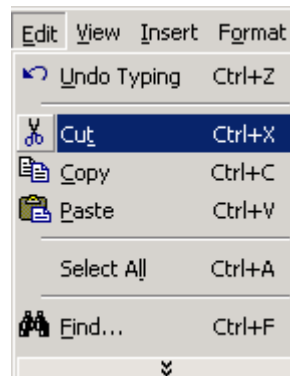
Fig 1.3.4.9

Standard and Formatting Toolbars

Toolbars are rows of buttons and boxes. When you click on a button or box, an application opens or a task is performed. Toolbars normally appear at the top of an application's window. The **Standard Toolbar** shown in the image below is from Windows Explorer; the standard toolbars in other applications may have buttons that allow youto open a new document, save, print, and spell check.
The **Formatting Toolbar** is used to format a text using alignments, font type, font size, bold, italic, and lists. It is provided in most applications. The image below shows the Formatting Toolbar from Netscape Composer.

Save and/or Save As

Save is used when:
- It is the first time you are saving a file.
- You want to keep saving a existing file in different moments that you are working on it.
- It is the end of a working period.
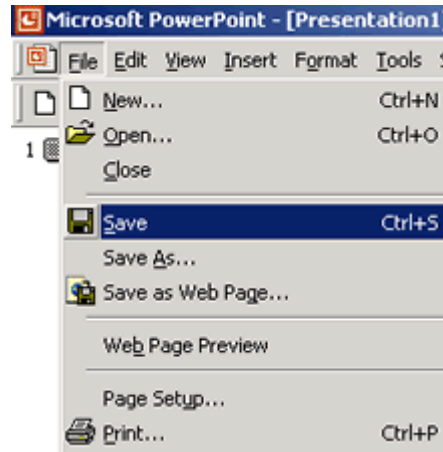
Fig 1.3.4.10

Note that clicking Save will replace whatever file you were working on.
Go to **File** menu and select **Save** or use the combination keys CTRL+S.
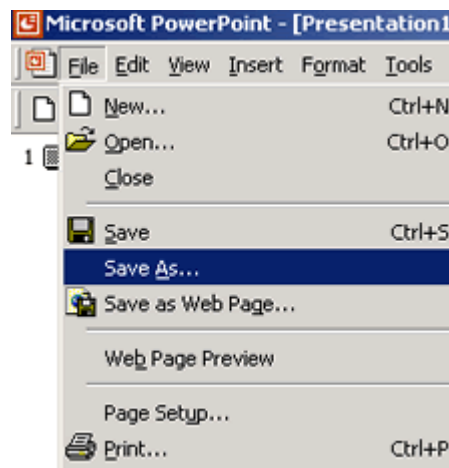
Fig 1.3.4.11

Save As is used when you want to save a file with a different name to create backups of a file in the creation process. In that way, you can have different versions of the same document and can return to a previous stage.

Go to **File** menu and select **Save As** or use the combination keys CTRL+SHIFT+S.

Rename/Delete a Folder or File

Using **Windows Explore**r you can rename or delete a file or folder.

To **Rename** a file or folder:

1. Navigate and select the file or folder you want to rename from the proper drive (c:, a:).
2. Go to the **File** menu and select **Rename.**
3. The file name will be highlighted and blinking in the right corner waiting for you to type the new file name.
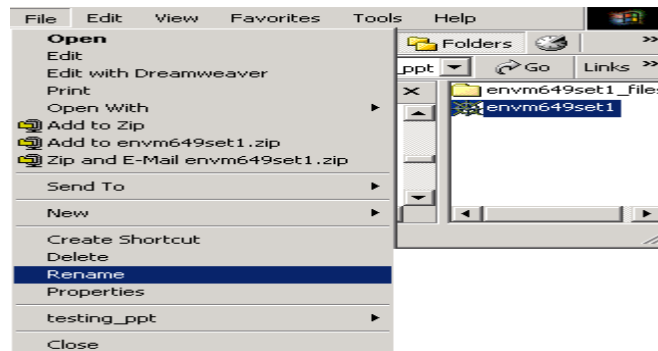
Fig 1.3.4.12

To **Delete** a file or folder:

1. Navigate and select the file or folder you want to **delete.**
2. Go to the **File** menu and select **Delete.**
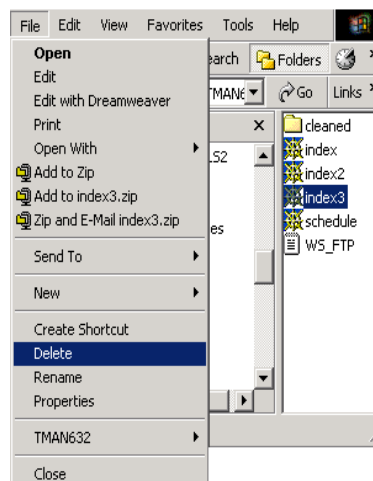
Fig 1.3.4.13

Another way of renaming or deleting a file or folder is using the right-click button of your mouse. After highlighting the file or folder, you right-click and a menu will appear where you can select **Rename** or **Delete.**

1.3.5 Types of Computers

1. PC

The personal computer (PC) defines a computer designed for general use by a single person. While a Mac is a PC, most people relate the term with systems that run the Windows operating system. PCs were first known as microcomputers because they were a complete computer but built on a smaller scale than the huge systems in use by most businesses.

2. Desktop

Fig 1.3.5.1

A PC that is not designed for portability is a desktop computer. The expectation with desktop systems are that you will set the computer up in a permanent location. Most desktops offer more power, storage and versatility for less cost than their portable brethren.

3. Laptop

Fig 1.3.5.2

Also called notebooks, laptops are portable computers that integrate the display, keyboard, a pointing device or trackball, processor, memory and hard drive all in a battery-operated package slightly larger than an average hardcover book.

4. Netbook

Fig 1.3.5.3

Netbooks are ultra-portable computers that are even smaller than traditional laptops. The extreme cost-effectiveness of netbooks (roughly $300 to $500) means they're cheaper than almost any brand-new laptop you'll find at retail outlets. However, netbooks' internal components are less powerful than those in regular laptops.

5. PDA

Fig 1.3.5.4

Personal Digital Assistants (PDAs) are tightly integrated computers that often use flash memory instead of a hard drive for storage. These computers usually do not have keyboards but rely on touchscreen technology for user input. PDAs are typically smaller than a paperback novel, very lightweight with a reasonable battery life. A slightly larger and heavier version of the PDA is the handheld computer.

6. Workstation

Fig 1.3.5.5

Another type of computer is a workstation. A workstation is simply a desktop computer that has a more powerful processor, additional memory and enhanced capabilities for performing a special group of task, such as 3D Graphics or game development.

7. Server

A computer that has been optimized to provide services to other computers over a network. Servers usually have powerful processors, lots of memory and large hard drives. The next type of computer can fill an entire room.

8. Mainframe

In the early days of computing, mainframes were huge computers that could fill an entire room or even a whole floor! As the size of computers has diminished while the power has increased, the term mainframe has fallen out of use in favor of enterprise server. You'll still hear the term used, particularly in large companies to describe the huge machines processing millions of transactions every day.

9. SuperComputer

Fig 1.3.5.6

This type of computer usually costs hundreds of thousands or even millions of dollars. Although some supercomputers are single computer systems, most are composed of multiple high performance computers working in parallel as a single system. The best known supercomputers are built by Cray Supercomputers.

10. Wearable Computer

Fig 1.3.5.7

The latest trend in computing is wearable computers. Essentially, common computer applications (e-mail, database, multimedia, calendar/scheduler) are integrated into watches, cell phones, visors and even clothing. For more information see these articles on computer clothing, smart watches and fabric PCs.

1.3.6 Computer Hardware and Software

Computer hardware includes all the electrical, mechanical, and the electronic parts of a computer. Any part that we can see or touch is the hard ware.

Computer hardware includes

1. System Unit
2. Peripheral devices
3. Input devices i.e. keyboard, mouse etc.
4. Output devices i.e. Display Unit, printer etc.
5. Storage devices like hard disk, floppy disks etc.

Software:

The functioning of the computer is not dependent on hardware alone. So, what else is required?

It requires a set of instructions that tells the computer what is to be done with the input data. In computer terminology, this set of instructions is called a program and one or more programs is termed as software.

Let us understand hardware and software with an example. An audio cassette when played gives you some sound. Here, the tape recorder and the audio cassette can be compared to hardware. The sound which comes from the tape recorder can be compared to software.

Software used for computers may be of different types. Some of which are :

- Application Software
- System Software

Application Software

Software specially suited for specific applications for example, railway and airline reservation, billing, accounting or software which enables creation and storage of documents are termed as application software.

System software

In the above airline reservation ex System software ample, the clerk types your name and other details through the keyboard. But how does this go to the system unit? This activity is done by a set of instructions called the Operating Systems.

The Operating System manages the various 1/0 devices of the computer and enables the user to interact with the machine.

The computer understands only machine language i.e. O's and 1's. In the above example how do you think it understands the reservation clerk's query in English? There has to be a software which translates the user language into machine language.

The software which does this translation is known as the support software. Examples of support software are compilers and interpreters

1.3.7 Advantages and disadvantages of computers

Advantages and Disadvantages of Using Computers

Advantages of Using Computers	Disadvantages of Using Computers
Speed	Health Risks
Reliability	Violation of Privacy
Consistency	Public Safety
Storage	Impact on Labor Force
Communications	Impact on Environment

Fig 1.3.7

1.3.8 Applications of Computers

1. Business
2. E-Commerce
3. Education
4. medical
5. Science
6. Communication
And etc.

Fig 1.3.8.1

1.Business: Businesses use computers for communications across a number of types of people, such as between employees, between the business and its customers, and between a business and its suppliers. One major advantage of computer communication is that it is often

asynchronous, which means that communication can happen even if one person is not available by telephone

2. E-Commerce: E-commerce (electronic commerce) describes the buying, selling, and exchanging of products, services, and information via computer network. The term e-commerce as describe transactions, conducted between business partners. There are many applications of e-commerce ,such as home banking, shopping in electronic malls, buying stocks, finding a job, conducting an auction, collaborating electronically with business partners around the globe, marketing and providing customer service.

Fig 1.3.8.2

3.Education: The computer technology has a deep impact on education. Computer education forms a part of the school and college curriculum, as it is important for every individual today, to have the basic knowledge of computers. The advantages of computers in education include an efficient storage and performance of information, quick information processing and very importantly the saving of paper. Know more about the importance of computer education. Computer teaching plays a key role in the modern systems of education.

4.Medical: Computers play an indispensable role in the medicalfield, and without them, proficiency and productivity would decline markedly. Computers assist with organisational, administrative duties, patient records, and a number of medical technologies that are an absolute necessity in today's world. Every hospital now incorporate computers into the framework of its everyday responsibilities and duties, and this technologyhas become an invaluable asset in virtually every medical facility. Generally speaking, many medical screening methods hinge largely on computer technology, including x-rays. Furthermore, various surgical procedures require computers as well, including heart surgeries. Computers can streamline the efficiency of many medically related duties.

5.Science: As much as computers have become a part of our daily lives, they have also becomean integral part of modern science. They are essential in helping scientists to understand the world around us. Computers have changed the face of science so that scientists are no longer constrained to doing just experiment-based or theoretical research. Now scientists can enter results and data into a computer and the computer, utilizing mathematics and abiding by the physical laws, can recreate a virtual physical world right on the computer screen

6.Communication: Computers are critical for communication and are the center piece of information technology. The early 1990s saw the emergence of household Internet use, which eventually spurred common use of email, websites, blogs, social networking, video chat and Voice-Over-Internet Protocol. Today, many traditional communication modes including postal mail and landline phones seem obsolete.

1.3.9 Working with Operating Systems

An operating system and Graphical User Interface (GUI) created by Microsoft and found on most computer systems (but not all!). It allows for easy "point and click" operations between the user and the different files and programs with which they wish to work. While there are many different versions of Windows, the fundamentals are the same.
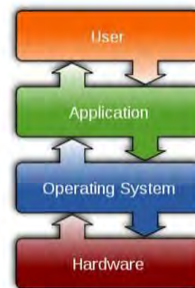
Fig 1.3.9.1

When referring to an operating system, Windows or win is an operating environment created by Microsoft that provides an interface, known as a Graphical User Interface (GUI), for computers. Windows eliminates the need to memorize commands for the command line (MS-DOS) by using a mouse to navigate through menus, dialog boxes, buttons, tabs, and icons. If you are using a PC (IBM) computer you are most likely using a version of Windows. If you are on an Apple computer you are using macOS.

Using the Start Menu:
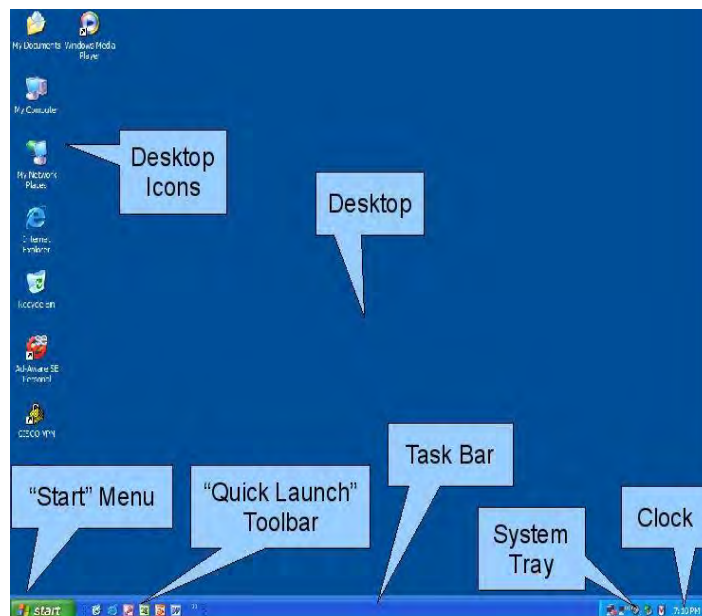
Fig 1.3.9.2

Start menu

The Start menu can be used to quickly start the installed programs. The programs are divided in two sections: the quickly available programs pinned to the start menu (the upper section) and the recently opened programs (below the horizontal line). By default this menu is filled with less important programs, while most of the time the newly installed and important programs are hidden behind the sub menu All Programs. By right clicking a program and selecting Pin to Start menu (like shown below), a program can be added to the short (but quickly available) list of programs in the Start menu.

The Desktop

The "Desktop" is the general work area of your computer. It gives you access to programs, folders and documents that you use frequently. • This area is customizable on your own computer, though it is not something that can be changed on a public computer at the library
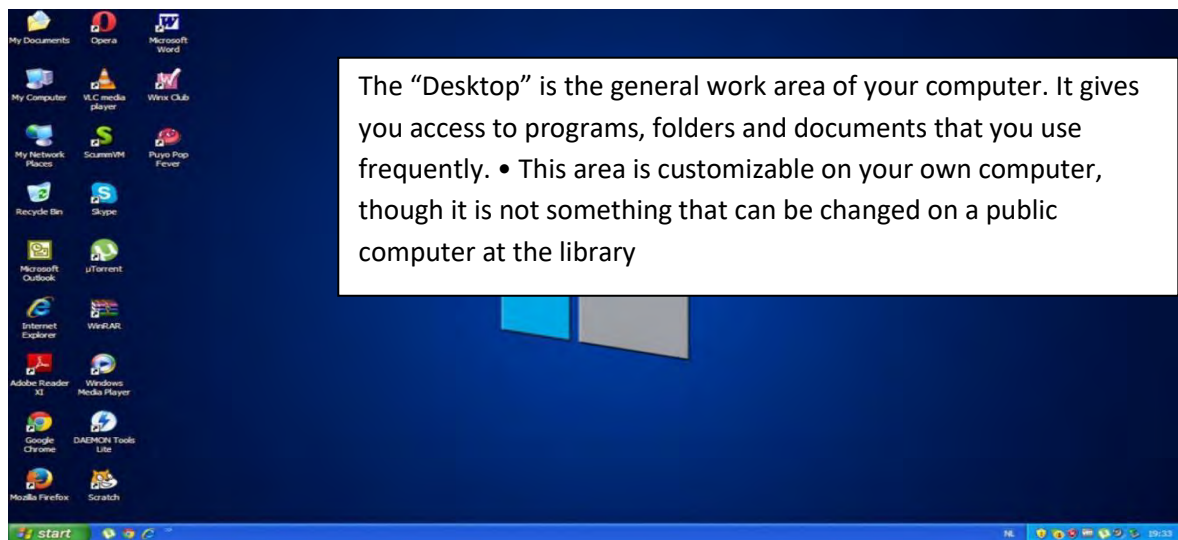
Fig 1.3.9.3

Desktop Icons:

Icon: An icon is a small graphical representation of a program or file that, when clicked on, will be run or opened. Icons are used with Graphical User Interface (GUI) operating systems, such as Microsoft Windows and the Apple Mac OS, to help quickly identify a type of file or program associated with the icon.

When you double-click or open an icon, the associated file or program will be opened. For example, if you were to double-click on the My Computer icon, it would open Windows Explorer and double-clicking a document or file icon would open that document in the associated program.
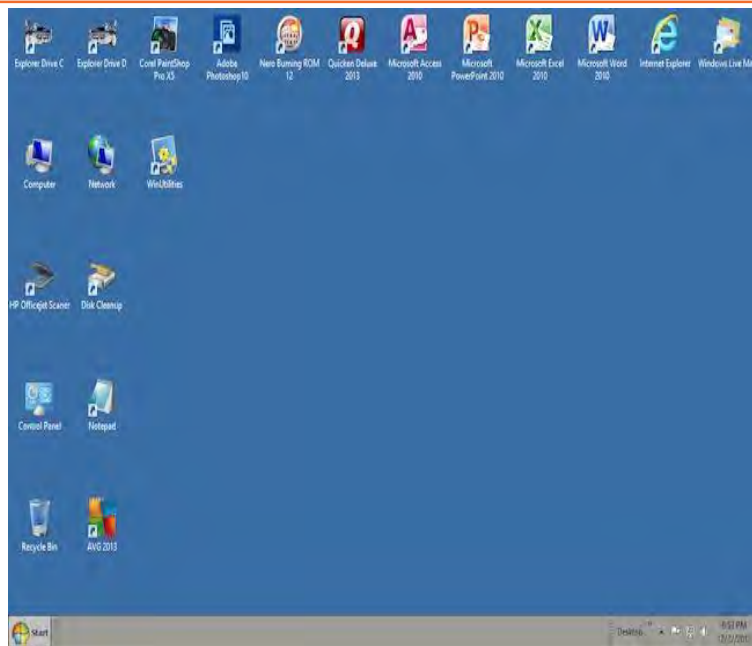
Fig 1.3.9.4

The user can activate an icon using a mouse, pointer, finger, or recently voice commands. Their placement on the screen, also in relation to other icons, may provide further information to the user about their usage.[2] In activating an icon, the user can move directly into and out of the identified function without knowing anything further about the location or requirements of the file or code

Taskbar…

The taskbar is what you see at the very bottom of your screen. Contains the "Start" button, which allows access to other Windows programs and features that are not on the desktop. System tray shows programs running in the background, the clock, volume control, etc

Taskbar elements

• The Start button, a button that invokes the Start menu. It appears in Windows 9x, Windows NT 4.0 and all its successors, except Windows 8 and Windows Server 2012.

• The Quick Launch bar, introduced on Windows 95 and Windows NT 4.0 through the Windows Desktop Update for Internet Explorer 4 and bundled with Windows 98, contains shortcuts to applications. Windows provides default entries, such as Launch Internet Explorer Browser, and the user or third-party software may add any further shortcuts that they choose. A single click on the application's icon in this area launches the application. This section may not always be present: for example it is turned off by default in Windows XP and Windows 7.

• The Windows shell places a taskbar button on the taskbar whenever an application creates an unowned window: that is, a window that doesn't have a parent and that is created according to normal Windows user interface guidelines. Typically all Single Document Interface applications have a single taskbar button for each open window, although modal windows may also appear there.

Fig 1.3.9.5

Using the Windows Explorer:

Microsoft Windows Explorer is a graphical file management utility for the Windows operating sytem (OS).

Windows Explorer, which was introduced with Windows 95, was later renamed File Explorer. Each time that a computer user accesses a disk or opens a folder containing files, they are using the Windows/File Explorer utility. The goal of the file management utility is to allow users to conveniently work with the files and directories located on any connected disk. When a file is selected within the Windows/File Explorer interface, users can select from a variety of context-sensitive actions such as renaming, moving, copying, publishing, emailing, printing or deleting the file. Entire folders can also be opened, explored, shared, copied, cut, pasted, moved or deleted. Files can be searched or dragged and dropped between folders, and folders can be moved into other folders and disk drives as desired.
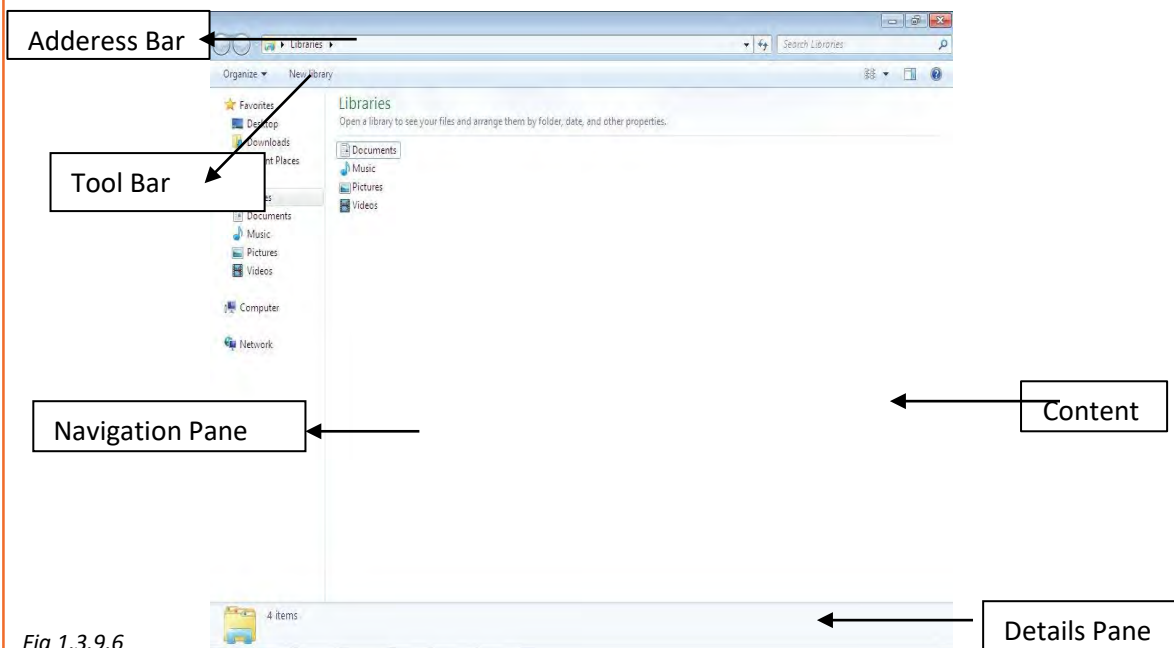
Fig 1.3.9.6

Components of Windows Explorer:

- **Address Bar**: The Address bar is located at the top of the Windows Explorer window. It displays the location of your computer files and folders. The location is displayed in the form of a series of links separated by arrows. You can navigate to any location by clicking the appropriate folder or drive from the path in the Address bar.

- **Search Box**: The Search box in Windows Explorer helps you to quickly view the files and folders present at different locations on your computer. This feature is also known as Instant Search as the result of your search is instantly displayed in the Content pane.

- **Toolbar**: The Toolbar of Windows Explorer contains commands in the form of buttons that you can use to manage files and folders. The buttons in the Toolbar are the shortcuts for the commands that are available in the Menu bar.

- **Navigation Pane**: The Navigation pane, located at the left side of the Windows Explorer window, allows you to navigate to files and folders present at different locations in your computer easily and quickly. You can also open a folder and view its content by clicking the arrow that appears beside the folder in the Navigation pane.

- **Content Pane**: The Content pane displays the files and subfolders of a selected folder. The files and sub folders of the selected folder are displayed in the Details pane by default, which includes details, such as file size and date of creation.

- **Details Pane**: The Details pane provides detailed information about the selected file or folder, such as the format of the selected file, the date when the file was created and modified and the size of the file. The Details pane is located at the bottom of the Windows Explorer window.

Performing Basic File and Folder Operations

A file is an object on a computer that stores data, information, settings, or commands that are used with a computer program. In a graphical user interface (GUI) such as Microsoft Windows, files are shown as unique icons that relate to the program that opens the file. For example, the picture is an icon associated with Adobe Acrobat PDF files. If this file was on your computer double-clicking the icon in Windows would open that file in Adobe Acrobat or the PDF reader installed on the computer.

Each individual document and spreadsheet within is known as a File. Files are the items that you are able to view and to work on if desired. Examples include images you download from your digital camera, or Word documents you've created.

A Folder is very similar to a folder in a file cabinet. Inside each of the Folders, there may very well be more sub-folders, or Files. Folders are a great way to keep you organized on different projects that you may be involved with. For example, you might have a Folder for all of your documents, and another for all of your spreadsheets. Furthermore, you may have sub-folders within these to keep those documents even more organized.

Creating Files and Folders

On the Menu bar, click File, then select New and finally click Folder and the folder will be created in the right hand pane. At this point, the new folder will be created and the name will be highlighted. Type in the name you wish to call the new folder. Make sure prior to making

the new folder that you are located at the proper place in the hierarchical view in the left pane. The new folder will always be created as a subfolder of whatever location you have selected.

Creating a Folder

1.Click the New button or right-click in the Files and Folders screen

2.Select New Folder from the dropdown menu

3.Enter a name in the Folder Name field

4.You can select to either keep the folder private or invite collaborators. If you would like to invite collaborators, enter their names or email addresses in the field and select the access level they will have
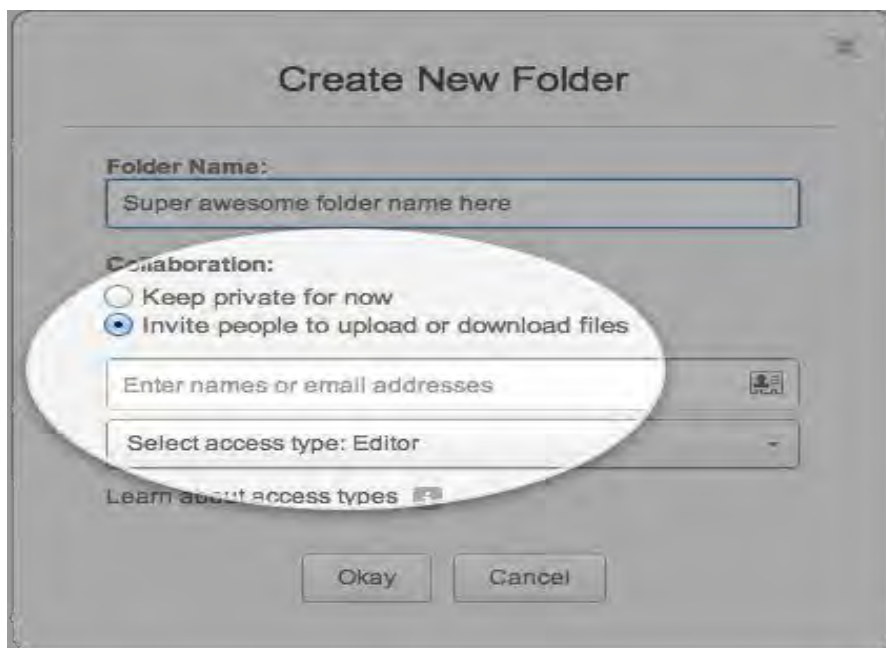
Fig 1.3.9.7

5.Click Okay

Copying a File or Folder

Below are the simple steps on how to copy a file or multiple files in Microsoft Windows from one location to another.

1. Go to the files or folders you want to copy. If you need help locating the files use the Windows find feature.

2. Highlight the file or files you want to copy. If you need to highlight more than one file, you can hold down the CTRL or Shift keys on your keyboard or drag a box around the files you want to copy.

3. Once highlighted, right-click one of the highlighted files and select copy. Users may also press the CTRL + C shortcut key, or in Windows Explorer, click Edit at the top of the window and choose Copy.

4. Move to the drive, folder, or other location you want to copy the files to and either right-click in the folder and choose paste or click Edit from the File Menu and then click Paste.
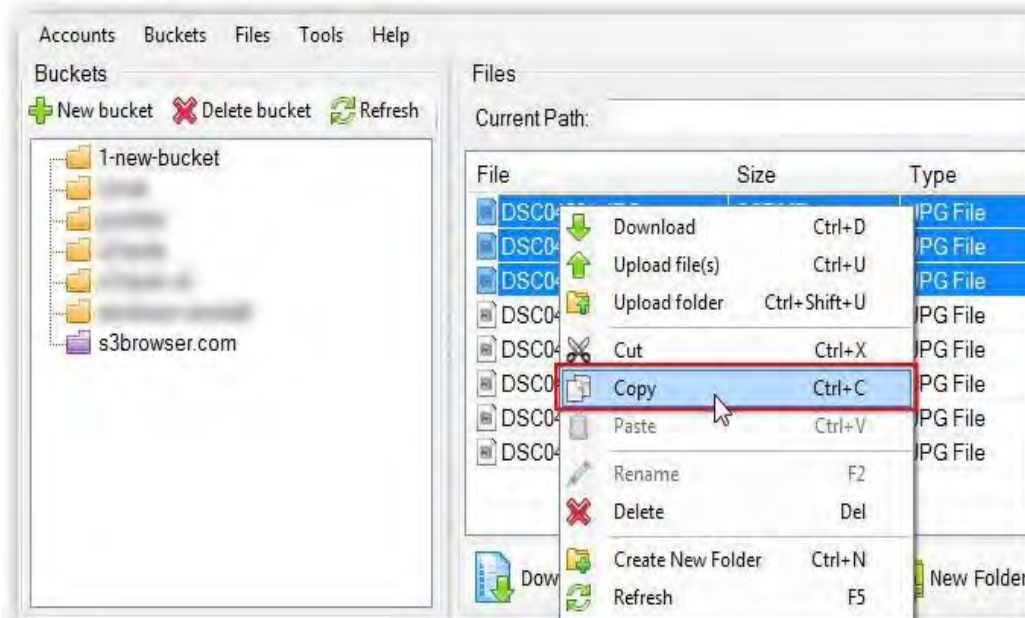
Fig 1.3.9.8

Exercise

List down the components of Windows Operating System

_____

_____

_____

_____

_____

_____

_____

Unit 1.4: M.S. Office & Data Confidentiality

Unit Objectives

At the end of this unit, you will be able to:

1. Know about MS office and its components
2. Be able to explore and use the basic features of the above mentioned components
3. Learn how to add header, footer, and page number in MS Word.
4. Have an understanding about Data Confidentiality

1.4.1 Introduction to M.S. Office

Fig 1.4.1

It was first announced by Bill Gates on 1 August 1988. Office is produced in several versions targeted towards different end-users and computing environments. The original, and most widely used version, is the desktopversion. The first version of Office contained Microsoft Word, Microsoft Excel, and Microsoft PowerPoint. Finally, with the rise of cloud computing, Microsoft also produces and runs Office Online, a web-based version of core Office apps, which is included as part of aMicrosoft account. Let us now one by one take every component that makes MS office.

1.4.2 Microsoft Word and its working

In basic terms, MS word can be explained as a <u>word processor</u>. Microsoft Word is a full-featured word processing program for writing and editing text documents. Word includes tools that let multiple users share information and collaboratively edit documents. Word is included in every edition of Microsoft Office2007.

The aim of the MS-Word is to permit the users to type as well as save documents. Comparable to other word processors, Word has useful tools to prepare documents.

Word 1.0 could be purchased with a bundled mouse, though none was required. Following the precedents of LisaWrite and MacWrite, Word for Macintosh attempted to add closer WYSIWYG features into its package. Word for Mac was released in 1985. Word for Mac was the

first graphical version of Microsoft Word.

The basic window to understand various essential parts which we get when we start word application is given below:
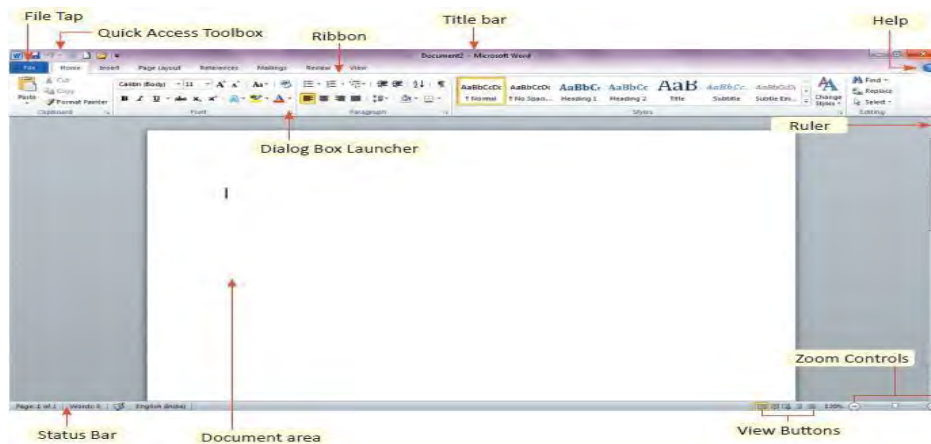
Fig 1.4.2.1

File Tab -The File tab substitutes the Office button from Word. By clicking it to check the Backstage view, which is the place to come when we need to save or open files, print a document, create new documents, and do other file-related operations.

Quick Access Toolbar -You will find it just above the File tab and its objective is to give a suitable resting place for the utmost repeatedly used commands of Words. We can modify this toolbar as per our comfort.

Ribbon holds commands organized in the following three components:
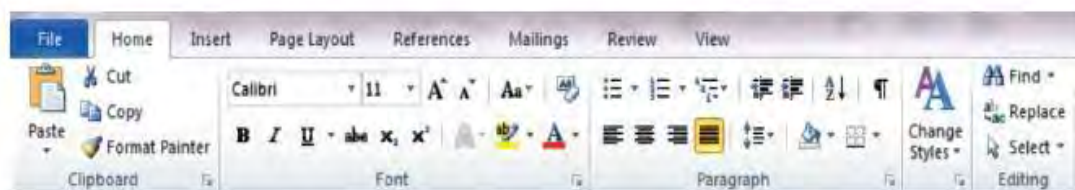
Fig 1.4.2.2

1. **Tabs:** They appear through the top of the Ribbon and comprize a group of related commands like   Insert, Home, Page Layout and so on.

2. **Groups:** They organize related commands and each group name appears below the group on the Ribbon, such as group of commands related to group of commands or fonts, and commands related to alignment, and so on.

3. **Commands:** They appear within each group such as group of commands or fonts as mentioned above.

Title bar: Title bar lies in the middle and at the top of the window. It shows the document and

program titles.

Rulers: Ms-Word has two rulers as follows:

1. **The horizontal ruler:** It appears just beneath the Ribbon and is used to tab stops and set margins.

2. **The vertical ruler:** It appears on the left edge of the Word window and is used to gauge the vertical position of elements on the page.

Help: The Help Icon can be used to get word related any help anytime we like.

Zoom Control: It let us zoom in for a closer look at the text. It consists of a slider that we can slide right or left to zoom out or in and we can click - and + buttons to decrease or increase the zoom factor.

View Buttons: View buttons are the group of five buttons located near the bottom of the screen and left of the Zoom control, with the help of view buttons we can switch among many document views of Words. These five view buttons are as follows:

1. **Print Layout View:** This view displays pages exactly as they will appear when printed.

2. **Full Screen Reading View:** This view gives a full screen look of the document.

3. **Web Layout View:** This view displays how a document appears when viewed by an Internet browser, such as Google Chrome.

4. **Outline View:** This view used to work with outlines established using Word's standard heading styles.

5. **Draft View:** This view formats text as it appears on the printed page with little exceptions. For instance, headers and footers are not shown. Most of the individuals prefer this draft View mode.

Document Area: It is the space where you type something. In the document area there is a flashing vertical bar that is known as the insertion point. Insertion point signifies the location where text will appear when we type.

Status Bar: Status bar shows the insertion point location and document information. From left to right, this bar comprises the words in the document, total number of pages, language, and so on. We can manage the status bar by right-clicking anywhere on the document and by selecting or deselecting options from the given list.

Dialog Box Launcher: Dialog Box Launcher appears like a small arrow in the lower-right corner of several groups on the Ribbon. By clicking Dialog Box Launcher opens a task pane or dialog box that gives much more options about the group.

1.4.3 Microsoft Excel and its working

Microsoft Excel2007 is a spreadsheet program used for tasks such as creating budgets, tracking data, and creating charts and graphs. With Excel, you create what Microsoft calls a Workbook, which can contain any number of individual worksheets. Users can copy or export the graphs and charts created in Excel to Word, PowerPoint, or Publisher or OneNote. Excel is included in

every edition of Microsoft Office2007.

MS excel originally competed with the dominant Lotus 1-2-3, and eventually outsold it. It is available for the Windows and OS X platforms. Microsoft released the first version of Excel for the Mac OS in 1985, and the first Windows version (numbered 2.05 to line up with the Mac and bundled with a standalone Windows run-time environment) in November 1987.

Now let us see how easy it is to enter text in an excel sheet. when you start a sheet, it displays a new sheet by default as shown below:
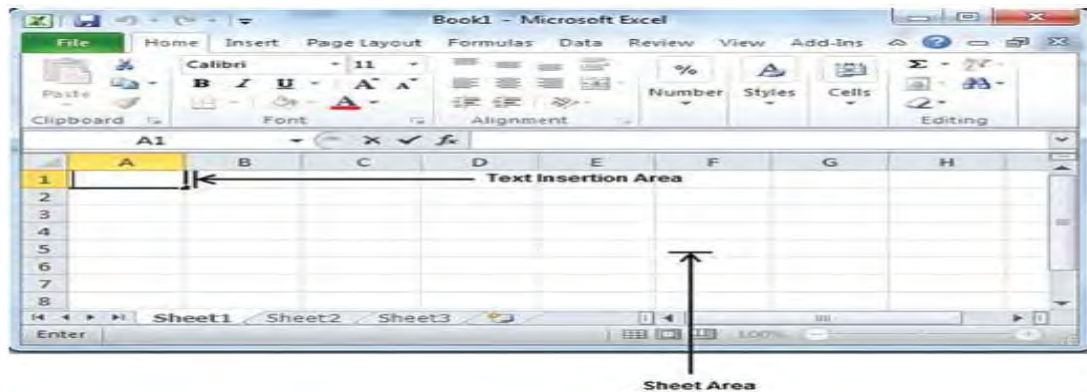
Fig 1.4.3.1

Sheet area is the area where you can type your text. The flashing vertical bar is known as the insertion point and it indicates the location where text will appear when you type.

When we **click on a box** then box becomes highlighted. When we double click the box flashing vertical bar will appear and we can start entering data then.

The three points to remember which would help you while typing are as follows:

1. Press Tab to go to next column

2. Press Enter to go to next row
3. Press Alt + Enter to enter a new line in the same column

Movement Using Keyboard

Excel can be excellently used using a keyboard ,here are some of the basics followed by important shortcuts.

Keystroke	Where the Insertion Point Moves
→	Forward one box
←	Back ward one box
↑	Up ward one box
↓	Down ward one box
PageUp	To the previous screen

Keystroke	Where the Insertion Point Moves
PageDown	To the next screen
Home	To the beginning of the current screen
End	To the end of the current screen

Shortcuts

File

Create new workbook	Ctrl N	⌘ N
Open workbook	Ctrl O	⌘ O
Save workbook	Ctrl S	⌘ S
Save as	F12	⌘ ⌥ S
Print file	Ctrl P	⌘ P
Open print preview window	Ctrl F2	
Close current workbook	Ctrl F4	⌘ W
Close Excel	Alt F4	⌘ Q

Ribbon

Expand or collapse ribbon	Ctrl F1	⌘ ⌥ R
Activate access keys	Alt	
Move to next ribbon control	Tab	Tab
Activate or open selected control	Space	Space
Confirm control change	Enter	Return
Get help on selected control	F1	

General

Open help	F1	⌘ /
Undo last action	Ctrl Z	⌘ Z
Redo last action	Ctrl Y	⌘ Y
Repeat last action	F4	⌘ Y
Copy selected cells	Ctrl C	⌘ C
Cut selected cells	Ctrl X	⌘ X
Paste content from clipboard	Ctrl V	⌘ V
Display the Paste Special dialog box	Ctrl Alt V	^ ⌘ V
Display find and replace	Ctrl F	⌘ F
Display find and replace, replace selected	Ctrl H	^ H
Find next match	Shift F4	⌘ G
Find previous match	Ctrl Shift F4	⌘ ⇧ G
Create embedded chart	Alt F1	Fn ⌥ F1
Create chart in new worksheet	F11	Fn F11
Toggle Autofilter	Ctrl Shift L	⌘ ⇧ F
Activate filter	Alt ↓	⌥ ↓
Insert table	Ctrl T	^ T
Select table row	Shift Space	⇧ Space
Select table column	Ctrl Space	^ Space
Select table	Ctrl A	⌘ A

Navigation

Move one cell right	→	→
Move one cell left	←	←
Move one cell up	↑	↑
Move one cell down	↓	↓
Move one screen right	Alt PgDn	Fn ⌥ ↓
Move one screen left	Alt PgUp	Fn ⌥ ↑
Move one screen up	PgUp	Fn ↑
Move one screen down	PgDn	Fn ↓
Move to right edge of data region	Ctrl →	^ →
Move to left edge of data region	Ctrl ←	^ ←
Move to top edge of data region	Ctrl ↑	^ ↑
Move to bottom edge of data region	Ctrl ↓	^ ↓
Move to beginning of row	Home	Fn ←
Move to last cell in worksheet	Ctrl End	Fn ^ →
Move to first cell in worksheet	Ctrl Home	Fn ^ ←
Turn End mode on	End	Fn →

Selection

Select entire row	Shift Space	⇧ Space
Select entire column	Ctrl Space	^ Space
Select entire worksheet	Ctrl A	⌘ A
Add adjacent cells to selection	Shift Click	⇧ Click
Add non-adjacent cells to selection	Ctrl Click	⌘ Click
Same selection in next column	⌥ Tab	
Same selection in previous column	⌥ ⇧ Tab	
Move right between non-adjacent selections	Ctrl Alt →	^ ⌥ →
Move left between non-adjacent selections	Ctrl Alt ←	^ ⌥ ←
Toggle add to selection mode	Shift F8	Fn ⇧ F8
Cancel selection	Esc	Esc

Active Cell

Select active cell only	Shift Backspace	⇧ Delete
Show the active cell on worksheet	Ctrl Backspace	⌘ Delete
Move active cell clockwise in selection	Ctrl .	^ _
Move active cell down in selection	Enter	Return
Move active cell up in selection	Shift Enter	⇧ Return
Move active cell right in a selection	Tab	Tab
Move active cell left in a selection	Shift Tab	⇧ Tab

Movement using Scroll Bars: moving vertically within the sheet.

Using the vertical scroll bar, we can:

1. Move downward by one line by clicking the downward-pointing scroll arrow.

2. Move upward by one line by clicking the upward-pointing scroll arrow.

3. Move one previous page, using previous page button.

4. Move one next page, using next page button.

5. Use Browse Object button to move through the sheet and going from one object to the next.

NOW let us finally finish by understanding a few tricks , these are sure to save a lot of time and even more energy.

First one is locating single cell, although seems like not a very useful thing to know, but is INCREDIBLY time saving when working on a big project

In Microsoft Excel, to locate a particular cell, you can use the Go To dialog box. This dialog box identifies cell names by applying the identical conventions used by Microsoft Excel. Under Edit from the main menu, You can get the Go To dialog box. Ctrl + G or F5 is the shortcuts to access the Go To dialog box.

The Replace dialog box permits you to identify a word or group of words and to change it with a new word or group of words. Both '**Find and Replace**' dialog boxes are available from the main menu under Edit. Ctrl + H is the shortcut for the Replace dialog box '
Next , also the last step, spell checking .

The check spelling is done with the help of a spelling dialog box that will take us step by step to every word that is debateable. Moreover, the computer will point out certain suggested words that we can use in place of the one at fault. We can check out worksheet's spelling after or during editing, though the latter is better. To Check Spelling in the document:
On the Ribbon, click Review;

go to the Proofing section, and then click the Spelling button

NOTE: Shortcut key for spelling check is F7

1.4.4 Microsoft Access

Microsoft Access has the look and feel of other Microsoft Office products, including its layout and navigational aspects. That is where the similarity ends. Microsoft® Access is a database and, more specifically, a relational database.

The Microsoft Access Database is made up of 7 major components:

1. Table-The tables are the backbone and the storage container of the data entered into the database. If the tables are not set up correctly, with the correct relationships, then the database may be slow, give you the wrong results or not react the way you expect.
2. **Relationships**-Relationships are the bonds you build between the tables. They join tables that have associated elements. To do this there is a field in each table, which is linked to each other, and have the same values.
3. **Queries**-Are the means of manipulating the data to display in a form or a report. Queries can sort, calculate, group, filter, join tables, update data, delete data, etc. Their power is immense.
4. **Forms**-Forms are the primary interface through which the users of the database enter data. The person who enters the data will interact with forms regularly. The programmer can set the forms to show only the data required.
5. **Reports**-Reports are the results of the manipulation of the data you have entered into the database. Unlike forms, they cannot be edited. Reports are intended to be used to output data to another device or application, i.e. printer, fax, Microsoft® Word or Microsoft® Excel.
6. **Macros**-Macros are an automatic way for Access to carry out a series of actions for the database. Access gives you a selection of actions that are carried out in the order you enter.
7. **Modules**-Modules are the basis of the programming language that supports Microsoft® Access, The module window is where you can write and store Visual Basic for Applications (VBA).

1.4.5 Microsoft Outlook and One Note

Microsoft Outlook is a personal information manager from **Microsoft**, available as a part of the **Microsoft** Office suite. Although often used mainly as an email application, it also includes a calendar, task manager, contact manager, note taking, journal, and web browsing. **Outlook** is an E-mail software program by Microsoft that enables users to send and receive e-mail on their computer.

Microsoft Outlook may be used as a standalone application, but is also part of the Microsoft Office suite. Outlook's current version is Microsoft Outlook 2010. Outlook is also available for the Apple Mac; its current version is Outlook 2011.

Microsoft OneNote

Microsoft OneNote is a computer program for free-form information gathering and multi-user collaboration. It gathers users' notes (handwritten or typed), drawings, screen clippings and

audio commentaries. Notes can be shared with other **OneNote** users over the Internet or a network.

In simpler words,organize all your class notes and ace that exam. OneNote is a digital notebook. Whether you're at home, in school, or in the office, use OneNote to take notes wherever you go. And OneNote automatically saves and synchronizes your notes so you can focus on your thoughts and ideas.

1.4.6 Microsoft PowerPoint

PowerPoint is a complete presentation graphics package. It gives you everything you need to produce a professional-looking presentation. PowerPoint offers word processing, outlining, drawing, graphing, and presentation management tools- all designed to be easy to use and learn.

The following gives you a quick overview of what you can do in PowerPoint:
▫ When you create a presentation using PowerPoint, the presentation is made up of a series   of **slides**. The slides that you create using PowerPoint can also be presented as overhead transparencies or 35mm slides.
▫ In addition to slides, you can print audience handouts, outlines, and speaker's notes.
▫ You can format all the slides in a presentation using the powerful **Slide Master** which will be covered in the tutorial.
▫ You can keep your entire presentation in a single file- all your slides, speaker's notes, and audience handouts.
▫ You can import what you have created in other Microsoft products, such as Word and Excel into any of your slides
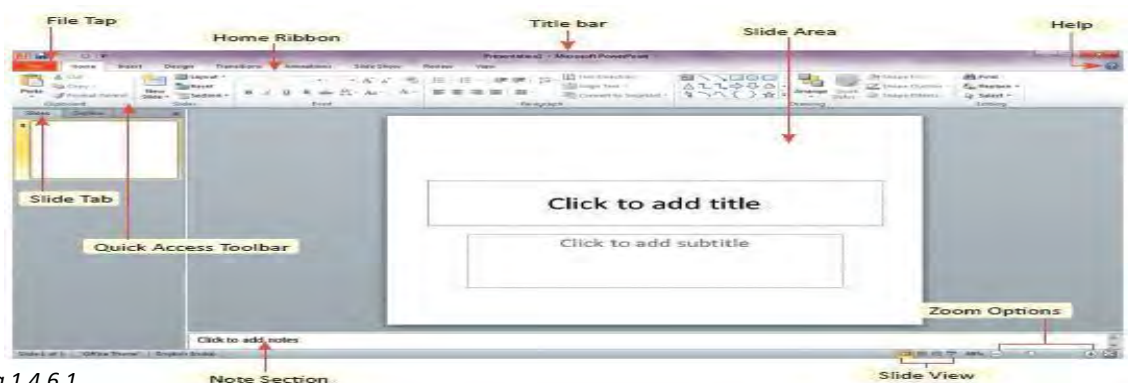
Fig 1.4.6.1

Taking about movement, Three movements provided by Microsoft PowerPoint are as follows:

1. Entrance, emphasis, and exit of elements on a slide itself are controlled by what PowerPoint defines Custom animations.

2. On the other hand, transitions are movements between slides. These can be animated in many ways.

3. Custom animation can be used to create small story boards by animating pictures to enter, exit or move.

Now lets finish by learning a few small but extremely useful things:

First, how to create a power slide.

1. Choose a theme

When you open PowerPoint, you'll see some built-in themes and templates. A theme is a slide design that contains matching colors, fonts, and special effects like shadows, reflections, and more.

1. Choose a theme.

2. Click Create, or pick a color variation and then click Create.
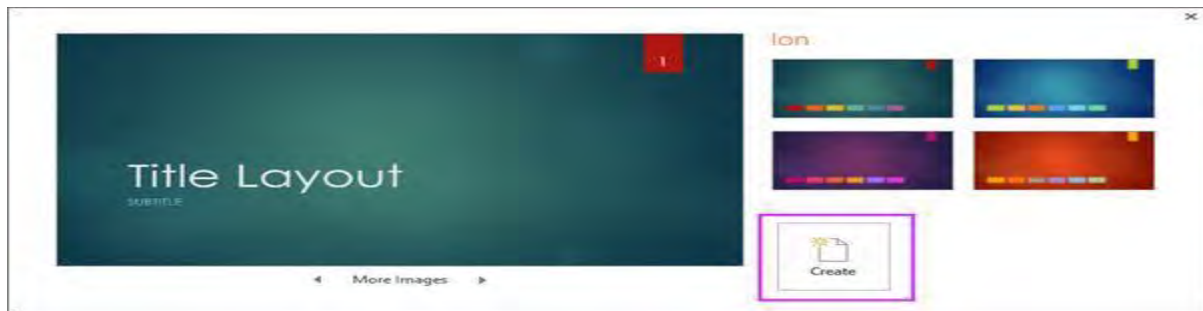
Fig 1.4.6.2

2. Insert a new slide

On the Home tab, click New Slide, and pick a slide layout.

Fig 1.4.6.3

3. Save your presentation

1. On the File tab, choose Save.
2. Pick or browse to a folder.

3. In the File name box, type a name for your presentation, and then choose Save.

NOTE: If you frequently save files to a certain folder, you can 'pin' the path so that it is always available (as shown below).
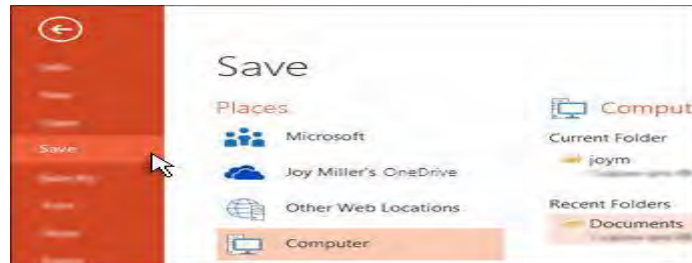
Fig 1.4.6.4

TIP: Save your work as you go. Hit Ctrl+S often.

Select a text placeholder, and begin typing.

4. Format your text

1. Select the text.
2. Under Drawing Tools, choose Format.
3. Do one of the following:
4. To change the color of your text, choose Text Fill, and then choose a color.
5. To change the outline color of your text, choose Text Outline, and then choose a color.
6. To apply a shadow, reflection, glow, bevel, 3-D rotation, a transform, choose Text Effects, and then choose the effect you want.
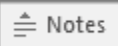
5. Add pictures

*   On the Insert tab, do one of the following:
*   To insert a picture that is saved on your local drive or an internal server, choose Pictures, browse for the picture, and then choose Insert.
*   To insert a picture from the Web, choose Online Pictures, and use the search box to find a picture.

Choose a picture, and then click Insert.

6. Add speaker notes

Slides are best when you don't cram in too much information. You can put helpful facts and notes in the speaker notes, and refer to them as you present.

1. To open the notes pane, at the bottom of the window, click Notes ⟮ ≜ Notes ⟯ .
2. Click inside the Notes pane below the slide, and begin typing your notes!

Add speaker notes to your slides

Print slides with or without speaker notes

7. Give your presentation

On the Slide Show tab, do one of the following:

To start the presentation at the first slide, in the Start Slide Show group, click From Beginning.
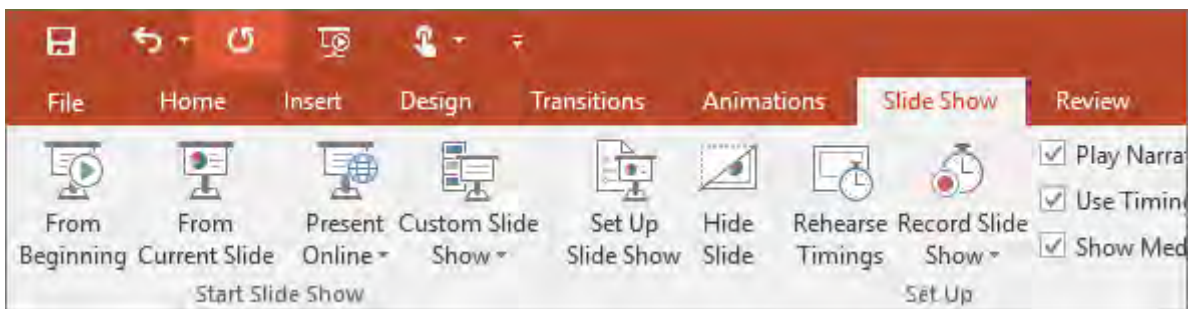
Fig 1.4.6.5

If you're not at the first slide and want to start from where you are, click From Current Slide.
If you need to present to people who are not where you are, click Present Online to set up a presentation on the web, and then choose one of the following options:
Present online using the Office Presentation Service
Start an online presentation in PowerPoint using Skype for Business
TIP: For information about viewing your notes as you give your presentation without the audience seeing them, see View your speaker notes as you deliver your slide show.

Secondly, steps for copying and pasting an existing slide:

Step 1: Open both the presentation — the presentation having the slide master that one wants to copy and the presentation that one will paste the slide master to.

Step 2: On the **View** tab, in the **Master Views** group, click **Slide Master**, in the presentation having the slide master that one wants to copy.

Step 3: Right-click the slide master that one wants to copy, and then click **Copy** in the slide thumbnail pane

Step 4: On the View tab, in the Window group, click Switch Windows, and then select the presentation that we want to paste the slide master to.

Step 5: In the presentation that we want to paste the slide master to, on the view tab, in the master views group, click slide master.

Step 6: In the slide thumbnail pane, to click the location where we want the slide master to reside, perform a right-click on the blank slide master, and then click paste.

1.4.7 Data Confidentiality

Data Confidentiality is whether the information stored on a system is protected against unintended or unauthorized access. Since systems are sometimes used to manage sensitive information, **Data Confidentiality** is often a measure of the ability of the system to protect its **data**.

Confidentiality is roughly equivalent to privacy. Measures undertaken to ensure confidentiality are designed to prevent sensitive information from reaching the wrong people, while making sure that the right people can in fact get it: Access must be restricted to those authorized to view the data in question. It is common, as well, for data to be categorized according to the amount and type of damage that could be done should it fall into unintended hands. More or less stringent measures can then be implemented according to those categories.

Sometimes safeguarding data confidentiality may involve special training for that privy to such documents. Such training would typically include security risks that could threaten this information. Training can help familiarize authorized people with risk factors and how to guard against them. Further aspects of training can include strong passwords and password-related best practices and information about social engineering methods, to prevent them from bending data-handling rules with good intentions and potentially disastrous results.

A good example of methods used to ensure confidentiality is an account number or routing number when banking online. Data encryption is a common method of ensuring confidentiality. User IDs and passwords constitute a standard procedure; two-factor authentication is becoming the norm. Other options include biometric verification and security tokens, key fobs or soft tokens. In addition, users can take precautions to minimize the number of places where the information appears and the number of times it is actually transmitted to complete a required transaction. Extra measures might be taken in the case of extremely sensitive documents, precautions such as storing only on air gappedcomputers, disconnected storage devices or, for highly sensitive information, in hard copyform only.
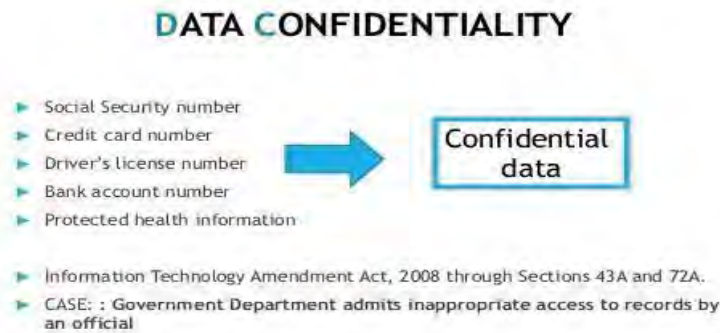
Fig 1.4.7

Steps to protect Confidential Data

▢ Identify The Confidential Information. Before a business can protect its confidential information, or expect someone else not to disclose it, the business must be able to specifically identify what the information is that it considers to be confidential. The more specific a business is in identifying the confidential information, the better chance it has of protecting it.

▢ Be Realistic In Identifying the Confidential Information. Obviously not all information can be classified as confidential. Generally, confidential information is information that is known only within the business and is not publically available. Narrowly and specifically identifying the confidential information allows a business to support its determination that the information is confidential.

▢ Make Sure All Employees Understand What Information Is Confidential. Once a business has identified what information it believes to be confidential, it is essential that its employees understand what information the business considers to be confidential. The precise nature of the confidential information does not need to be revealed to the employees, but they must be told enough so that they know that the particular information is confidential and not to disclose it to others. For example, employees may be told that the pricing formula for Product X is confidential, without telling them the pricing formula.

▢ Include A Confidentiality Statement In Your Employee Handbook. An Employee Handbook sets forth, among other things, an employer's expectation of its employees. The Employee Handbook should also identify what a business considers to be confidential and inform employees of his/her obligation not to disclose that information. It is hard for an employee to claim that he/she was unaware that certain information was confidential if language to that effect is in the Employee Handbook and the employee has acknowledged receipt of that handbook.

▢ Use Confidentiality/Non-Disclosure Agreements With People Who Have Knowledge Of And Access To The Specifics Of The Confidential Information. Certain people within a business, and consultants or others outside of a business will have access to confidential information. In such cases, a business should have those individuals and/or entities sign Confidentiality/Non-Disclosure Agreements to put them on specific notice that the business considers certain information to be

confidential and to give the business certain remedies against them should they disclose the confidential information.

🔲 Protect Confidential Information. It almost goes without saying that a business should not leave confidential information in the open. There are different steps a business can take to prevent others from gaining access to the information. For a smaller company, these steps might involve keeping the information under lock and key, while for a larger company, it might mean keeping the information in a password protected database.

🔲 Limit Access To The Confidential Information To Those With A Need To Know. Depending on the size of a business and the nature of your confidential information, not everyone should be given access to the confidential information. Access to this confidential information should be on a need-to-know basis. For example, a nationwide sales company may want to allow only its sales people to access its customer lists for that sales person's territory, as opposed to allowing access to customer lists for all territories.

🔲 Protect Computerized Confidential Information With Advances In Technology. More and more confidential information is being stored on computers. At a minimum, access to confidential information on these computers should be password protected with the password being changed at regular intervals, i.e. every 3-6 months. In addition, you might consider a confidentiality "reminder" pop-up on the computer screen before the confidential information can be accessed reminding employees that the information is confidential.

🔲 Label The Information As Confidential. Consider placing labels on confidential information that clearly states that the information is "confidential." This label can appear on the information itself and or on the container in which it is kept. It is yet another reminder to employees and others that information is considered to be confidential.

🔲 Conduct Employee And Consultant Exit Interviews. Exit interviews are generally important to remind departing employees and consultants of their obligations to the company, and to make sure that the employee's departure or termination of a business relationship is smooth. An exit interview also presents an opportunity to reiterate to the employee and/or consultant his/her obligation to keep information confidential.

The steps outlined above are all fairly easy to implement. The more of these steps that a business undertakes, the more likely its employees will understand that certain information is confidential, and the more likely a court will help a business protect the confidential information.

Protecting confidential information assets throughout an enterprise is a journey rather than a one-time event. It fundamentally requires a systematic way to identify sensitive data; understand current business processes; craft appropriate access, usage and distribution policies; and monitor outgoing and internal communications. Ultimately, what is most important to understand are the potential costs and ramifications of *not* establishing a system to secure non- public information from the inside out.

Unit 1.5: Understanding Computer Networks

Unit Objectives

At the end of this unit, you will be able to:

1. Understand computer networks
2. Understand various types of network devices
3. Comfortable with using search engines like Google
4. Be able to configure emails – create, send and view email messages

1.5.1 What is A Computer Network

A computer network consists of two or more computing devices that are connected in order to share the components of your network (its resources) and the information you store there in. The most basic computer network(which consists of just two connected computers) can expand and become more usable when additional computers join and add their resources to those being shared.

1.5.2 Types of Network

Networks are frequently classified according to the geographical boundaries spanned. A network contained within a relatively small area, such as a classroom, school, or single building, is commonly referred to as a local area network.

- A network that spans the distance of a typical metropolitan area is sometimes referred to as a metropolitan area network.

- A network covering larger area than a single cityisclassifiedasawideareanetwork.Anothermethodusedtoclassifynetworksfocusesonwhichcomputercontrolsthenetwork'soperation.

- All computers on a peer-to-peer network can be considered equal. Peer-to-peer networks are popularashomenet works and for use in small companies because they are inexpensive and easy to install.

- Server-based networks offer central control and are designed for secured operations.

1.5.3 About Network Devices

Network devices are components used to connect computers or other electronic devices together so that they can share files or resources like printers or fax machines. Devices used to setup a Local Area Network (LAN) are the most common type of network devices used by the public. A LAN requires a hub, switch, router.

1.5.3.1 HUBS

Hubs are simple network devices, and their simplicity is reflected in their low cost. Small hubs with four or five ports (often referred to as workgroup hubs) cost less than $50; with the requisite cables, they provide everything needed to create a small network. Hubs with more ports are available for networks that require greater capacity.
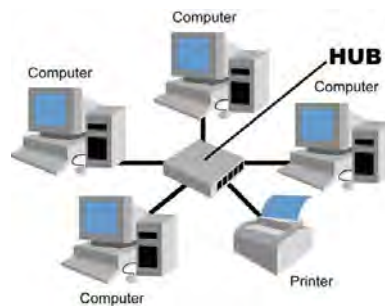
Fig 1.5.3.1

1.5.3.2 Switches

On the surface, a switch looks much like a hub. Despite their similar appearance, switches are far more efficient than hubs and are far more desirable for today's network environments. As with a hub, computers connect to a switch via a length of twisted-pair cable. Multiple switches are often interconnected to create larger networks. Despite their similarity in appearance and their identical physical connections to computers, switches offer significant operational advantages over hubs.
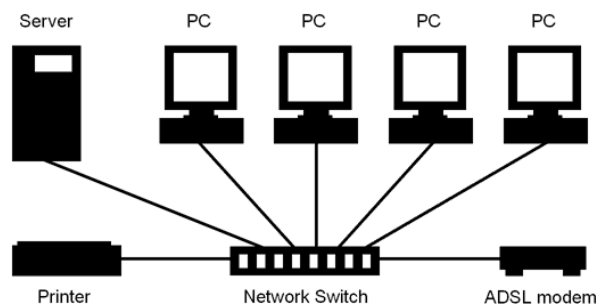
Fig 1.5.3.2

A hub forwards data to all ports, regardless of whether the data is intended for the system connected to the port. This arrangement is inefficient; however, it requires little intelligence on the part of the hub, which is why hubs are inexpensive.

1.5.3.3 Bridges

Bridges are networking devices that connect networks. Sometimes it is necessary to divide networks into subnets to reduce the amount of traffic on each larger subnet or for security reasons. Once divided, the bridge connects the two subnets and manages the traffic flow between them. Today, network switches have largely replaced bridges

The advantages of bridges are simple and significant. By preventing unnecessary traffic from crossing onto other network segments, a bridge can dramatically reduce the amount of network traffic on a segment. Bridges also make it possible to isolate a busy network from a not-so-busy one, thereby preventing pollution from busy nodes.
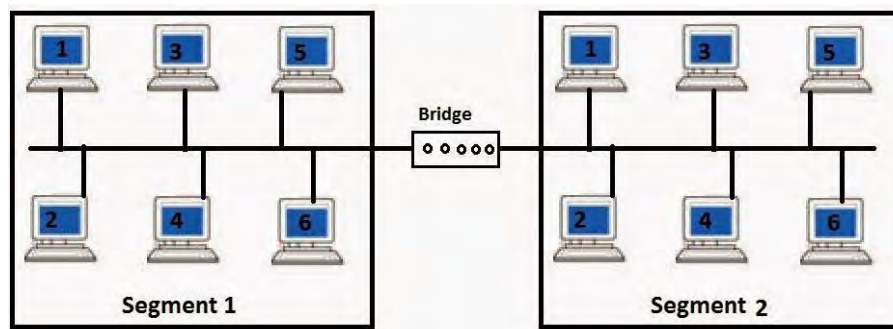
Fig 1.5.3.3

1.5.4 Searching information using a Search Engine

You do not always have to know a website's address in order to use the Internet. It is important to know how to search for information. One of the best methods to search is to use a search engine. A search engine is a software system on the Internet that will conduct a search of its own database of websites based on terms you have entered. As a result, you will be shown a list of web addresses that contain the term you were looking to find. An example of a popular search engine is www.google.com.

How to Use Search Engine: Google

First you will need to open Internet Explorer then enter www.google.com in the address bar. Here is what www.google.com looks like:

To conduct the search, point and click your mouse in the search textbox. Type in the textbox the words or words you would like to search. Then point and click your mouse on the Google Search button below the search textbox.

As an example, the word 'flowers' was entered into the Google textbox and after clicking on the Google Search button these are the results:
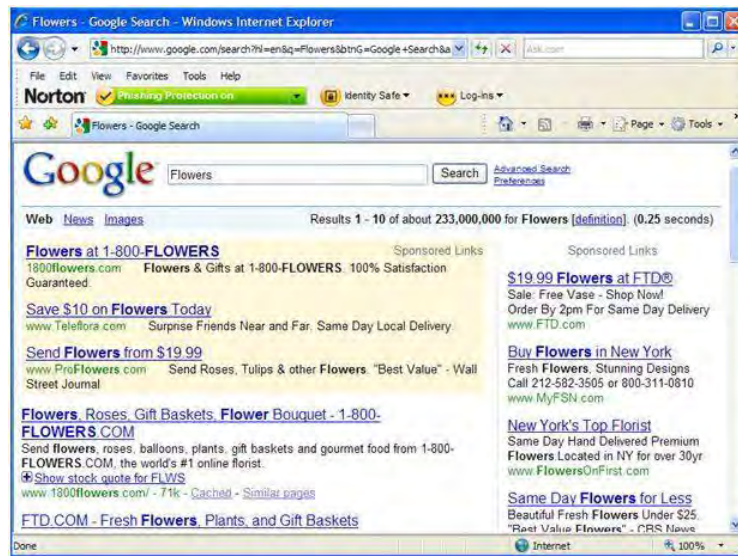
Fig 1.5.4

Every phrase in either blue with an underline may be clicked on to visit that particular site. These are hyperlinks to websites. The websites deemed most fitting for the search are found at the near the top of the list. There are also paid sponsors found at the top (shaded) and to the right of the screen that you may visit if you wish. You can see actual web addresses in green text.

1.5.5 Working with an Email Account

Email has become one of the most prevalent forms of communication. In the digital age, people use written communication far more than ever before. In fact, email communication is not only used in lieu of letter writing, it has also replaced telephone calls in many social situations and in professional environments.

1.5.5.1 Creating an Email Account

Creating an Email Account is very easy and feasible with the help of google. Following steps will help you in creating Email Account

Follow these step-by-step instructions to create a Gmail account

Step 1: Open up your internet browser and go to the Google home page: http://www.google.co.uk.

Step 2: Click on Gmail at the top right corner of the page

Step 3: You'll now be in the 'Sign in' section. As you don't have a Google account yet, you need to create one. Click Create an account.

Step 4: To set up your new account, Google needs some information about you – first, your first and last names. The 'choose your username' is the unique email address that you wish to use, which will be placed before '@gmail.com'. Because it needs to be unique, Google may have to check the availability of any name that you decide on to make sure that no one already has it. Type an email name into the 'choose your username' box and then fill out the rest of your information. You will need to ensure that the 'I agree to the Google terms of service and Privacy Policy' is ticked. Then click next step.

Step 5: If the email name that you requested in is not available, you'll get a message saying that somebody already has that username and offering you some alternatives. You can decide to accept one of the alternatives or type in another name and check its availability once more. You will have to complete some of the other boxes again. You may have to do this a few times. Once you finalise your email address, it's a good idea to make a note of it so that you can refer to it until you remember it.

Step 6: You'll need to come up with a password so that you can log in securely to your account. Google may explain that you should try one with at least 8 characters long to be secure. Use letters and numbers to make the password more secure and difficult to guess. You'll need to re- enter your password to ensure that it's you choosing it and not a hacker's (ro)bot. This is why it also asks you to insert two random words at the bottom of the page – this is a CAPTCHA code. You can skip this step if you don't want to type in the CAPTCHA code but you will need to verify via a mobile phone if you don't.

Step 7: Once you have completed this page fully, clicking Next Step will take you to the Create Profile Page. If you don't wish to have a picture on the web, click Next Step to complete setting up your email. If you do, Click on Add Profile Photo and find a photo to add. Then click Next Step.

Step 8: You will now have set up your account. You can go straight to your inbox and get started, or you can set up a photo to show as your profile picture.

Click on Add a photo to upload a photo and select a photo.

 Or click on Next Step to go to your inbox and get started.

1.5.5.2 Signing into Gmail Account

Sign in to Gmail

To open Gmail, you can login from a computer, or add your account to the Gmail app on your phone or tablet. Once you're signed in, check your mail by opening your inbox.

Sign in

1. Go to **gmail.com.**
2. Enter your Google Account username and password.
3. Click the Sign in button as shown in the figure below
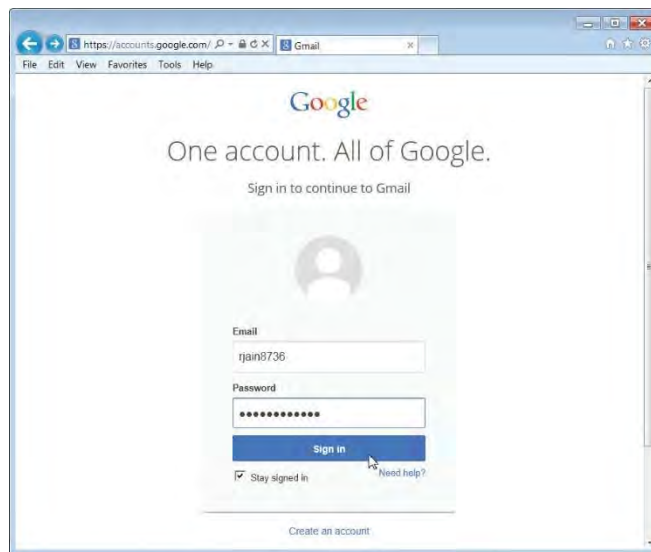
Fig 1.5.5.2

4. After Signing in, you will find the home page.

1.5.5.3 Creating, Sending, Viewing and Email Message

The following steps show you how to send an email using a Gmail account.

Step 1: Log in to your Gmail account so that you are on the dashboard (main page) of your mail account.

Step 2: Click **Compose**.
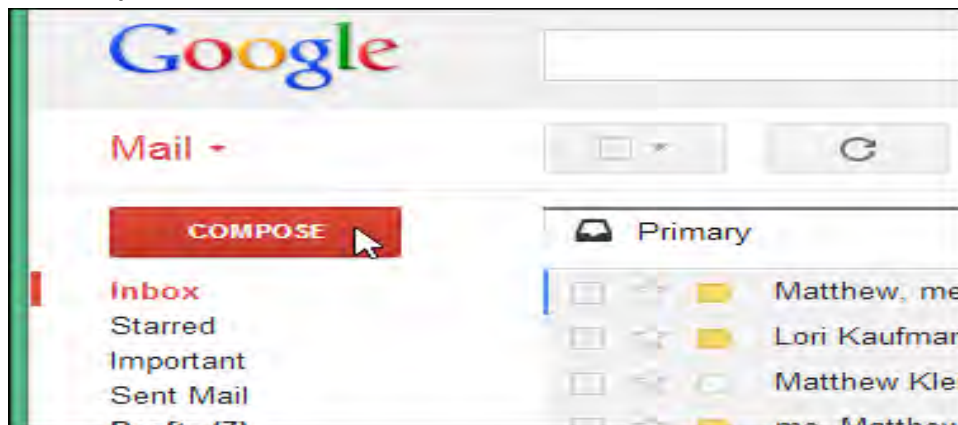
Fig 1.5.5.3.1

S tep 3: A new blank email window will open up. In the 'To' box, type in the email address of the recipient
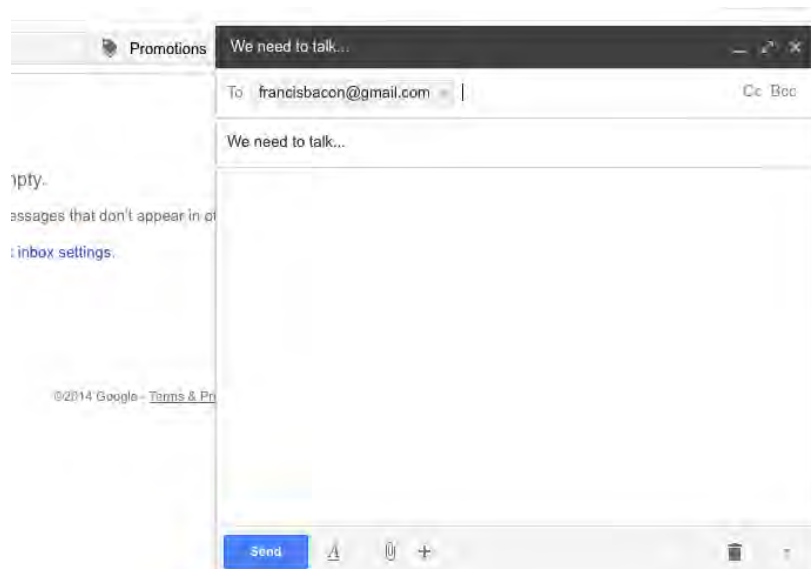
Fig 1.5.5.3.2

S tep 4: You might want to include someone else in your email to 'keep them in the loop'. You can do this by clicking Cc or Bcc, which will open another field. 'Cc' means 'carbon copy' and 'Bcc' means 'blind carbon copy'. Adding an email address to the 'Cc' field means that that person will receive a copy of the email and all the other recipients will see their email address. If an email address is put into the 'Bcc' field, the person will get a copy of the email but no other recipient will see that address.

If you are sending the same email to lots of different people, it's a good idea to put all the email addresses in the 'Bcc' field to keep your 'mailing list' confidential. That way, there's no chance that it could fall into the hands of a spammer or hacker.
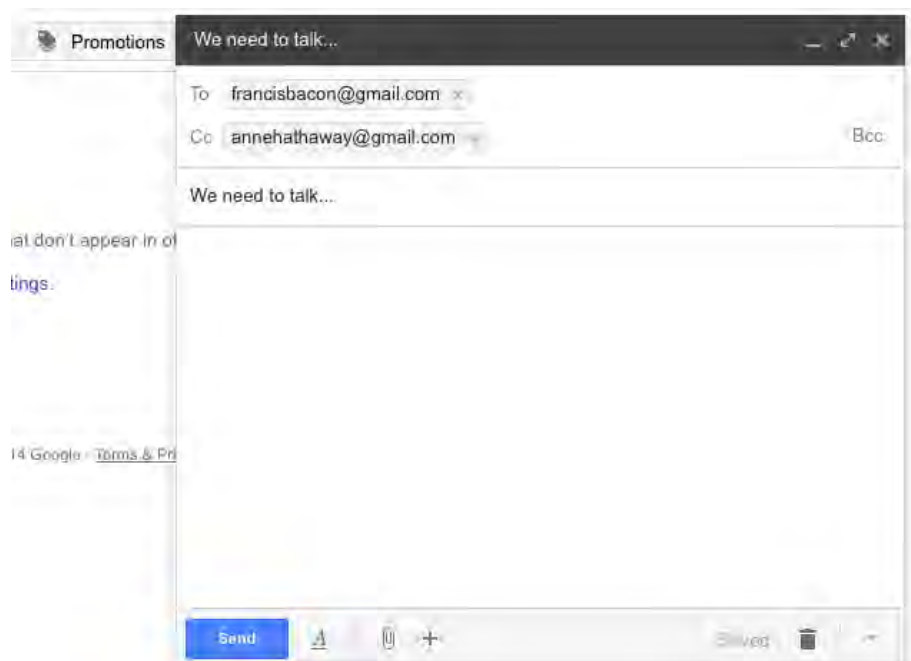
Fig 1.5.5.3.3

Step 5: The subject field allows you to give the recipient an idea of the topic of your email, like a heading. You don't have to put anything in the subject box, but it can help when viewing and sorting email.

 Step 6: Email text can be formatted in a similar way to text in a word document. You can change the font style, colour and size using the formatting icons. You can also create bullet points and check the spelling of your email. Choose your formatting from the menu shown.

S tep 7: Type your message in the main body field of your email.
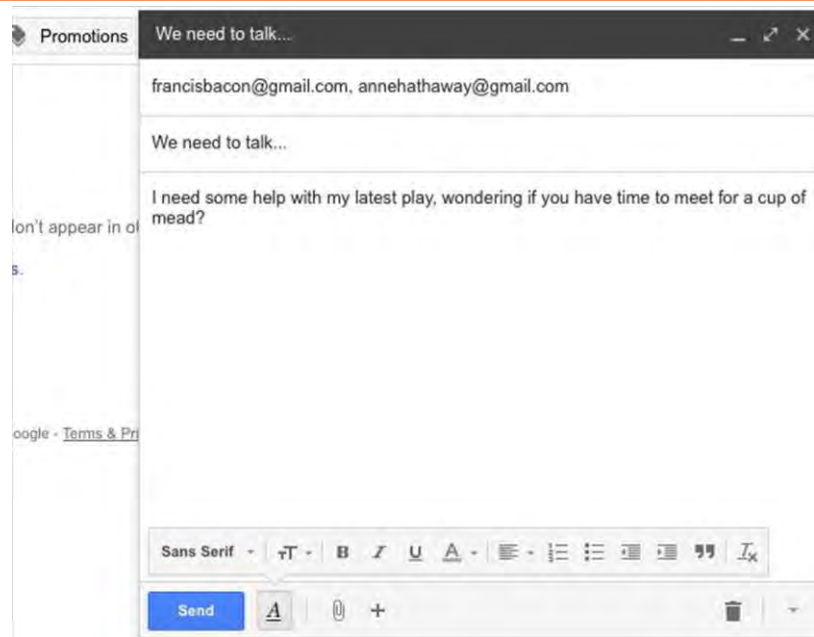
Fig 1.5.5.3.4

S tep 8: When you're happy with your email, click the blue **Send** button at the bottom of the compose window.
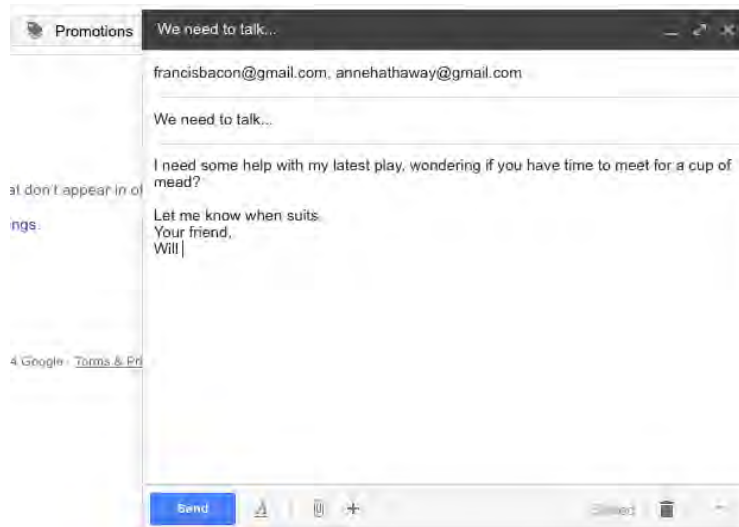
Fig 1.5.5.3.5
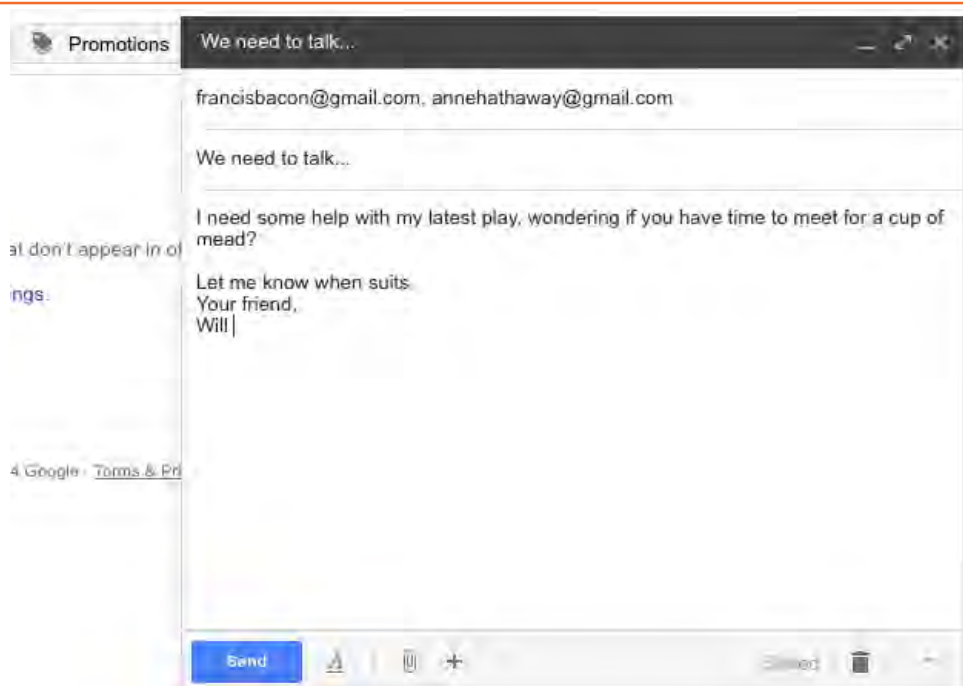
Fig 1.5.5.3.6

S tep 9: The email you've sent will now be stored in the 'Sent Mail' folder on your Gmail dashboard. You may have to run your mouse pointer over the Inbox folder link to see the other folders

S tep 10: You may start an email but then decide to come back to it later rather then sending it straightaway. Gmail saves your drafts automatically. So you can simply close the email and the unfinished email will be saved to your 'Drafts' folder. When you decide that you're ready to send it you can retrieve it from the 'Drafts' folder by clicking **Drafts** and then clicking the correct item in the 'Drafts' folder list. Finish the email and click **Send** as normal.,

Reading an Email Message

Gmail automatically and frequently checks for new email messages sent to you, whenever your computer or mobile device is turned on and connected to the Internet. If you want to manually check for new messages, open your inbox and then click the Refresh button above the message list.

To view all messages you've received, click Inbox in the navigation sidebar and then click the tab you want to view. Your most important messages should be on the Primary tab; other messages might be on the Social, Promotions, Updates, or Forums tabs.

As shown in figure below, all unread messages are displayed in bold against a white background.Messages you've read are displayed in nonbold type against a shaded background. All messages in your inbox show the sender's name, a message subject, a short snippet of message text, and the date on which the message was sent.

Fig 1.5.5.3.7

To read a given message, follow these steps:

1. From the Gmail inbox, click the tab that contains the type of message you want to view. Your most important messages should be on the Primary tab.
2. Select the message you want to read and click anywhere on that message's message line.
3. The full text of the message is displayed, as shown in figure. You can now reply to, forward, or delete the message, as described in the following sections.

Unit 1.6: Understand Wireless Computing

Unit Objectives

At the end of this unit, you will be able to:

1. Basics of Wireless Networking
2. Advantages and Disadvantages of Wireless Networking
3. Exploring Hardware Requirements to Setup a Wireless Network
4. Understanding and Exploring of different types of wireless networking and its security.

1.6.1 Basics of Wireless Networking

Wireless networks are computer networks that are not connected by cables of any kind. The use of a wireless network enables enterprises to avoid the costly process of introducing cables into buildings or as a connection between different equipment locations. The basis of wireless systems are radio waves, an implementation that takes place at the physical level of network structure

Wireless networks use radio waves to connect devices such as laptops to the Internet, the business network and applications. When laptops are connected to Wi-Fi hot spots in public places, the connection is established to that business's wireless network.

1.6.1.1 Advantages of Wireless Networking

The following are the Advantages of Wireless Networking
Advantages

- Mobility – user device can be moved easily within the wireless range
- Neat and easy Installation – since no cable running here and there, just start up the wireless device and you're ready to rumble
- ⬚ Less cost for cabling infrastructure and device
- More user supported – cable device have limited slots whereas wireless does not.

1.6.1.2 Disadvantages of Wireless Networking

Apart from Advantages, Wireless Networking also has some disadvantages as follows
Disadvantages

- Relatively lower bandwidth speed – example: although currently 802.11/n could reach 128 Mbps, UTP cable can reach 1 Gbps. And more user mean each bandwidth get smaller. That is why currently wired backbone network is still preferred.
- ⬚ Ease of access means more security also necessary to protect data and/or bandwidth, since people can connect anywhere within range without seeking network plug.

1.6.2 Exploring Hardware Requirements to Setup A Wireless Network

Wireless networking uses wireless technologies, such as infrared (IR), wireless Ethernet and Bluetooth for providing communication between various connected devices. IR ports are present in computers, printers and PDAs for data transfer. However, due to several limitations, IR ports were obsoleted from these devices. The wireless networking is not built-in in desktop computers. However, you can use wireless adapter, such as a wireless Peripheral Component Interconnect (PCI) or wireless Universal Serial Bus (USB) adapter, to add wireless networking to the computer.

1.6.2.1 Wireless Access Point

In computer networking, a wireless access point (WAP) is a networking hardware device that allows a Wi-Fi compliant device to connect to a wired network. The WAP usually connects to a router (via a wired network) as a standalone device, but it can also be an integral component of the router itself. A WAP is differentiated from a hotspot, which is the physical location where Wi-Fi access to a WLAN is available.

A WAP normally connects directly to a wired Ethernet connection and the WAP then provides wireless connections using radio frequency links for other devices to utilize that wired connection. Most WAPs support the connection of multiple wireless devices to one wired connection. Modern WAPs are built to support a standard for sending and receiving data using these radio frequencies

1.6.2.2 Wireless Repeater

A wireless repeater (also called wireless range extender) takes an existing signal from a wireless router or wireless access point and rebroadcasts it to create a second network. It can be a specialized stand alone computer networking device. Also, some Wireless network interface controllers (WNIC)s optionally support operating in such a mode. Those outside of the primary network will be able to connect through the new "repeated" network. However, as far as the original router or access point is concerned, only the repeater MAC is connected, making it necessary to enable safety features on the wireless repeater. Wireless repeaters are commonly used to improve signal range and strength within homes and small offices.

Fig 1.6.2.2

1.6.2.3 Wireless Bridge

A wireless bridge connects two wired networks together over Wi-Fi. The wireless bridge acts as a client, logging in to the primary router and getting an Internet connection, which it passes on to the devices connected to its LAN Jacks. You can buy a dedicated wireless bridge, but if you have an old router lying around, you might be able to convert it into a wireless bridge using DD- WRT.

Fig 1.6.2.3

1.6.2.4 Wireless Antennae

The single most important thing you can do to extend the range of your 802.11 system is to install an external antenna with some good gain and directional or omni-directional qualities. WiFi is simply a radio, which is used for computer. You can think of your antenna as the "speaker system" of your WiFi card. Get a bigger antenna; your WiFi will go a lot further. There are 2 types of wireless antennae

What is the best WiFi antenna for me?

You have probably arrived at this page because you are looking for a range extender antenna for your WiFi system. We have written this article to make the complex task of choosing the correct antenna for your system much easier and also to let you know how the different types of antennas perform.

The single most important thing you can do to extend the range of your 802.11 system is to install an external antenna with some good gain and directional or omni-directional qualities. WiFi is simply a radio, which is used for computer. You can think of your antenna as the "speaker system" of your WiFi card. Get a bigger antenna; your WiFi will go a lot further. However, don't install a speaker on your wifi system or your range will be horrible!

Directional Antennas

Directional antennas are used for Point-to-Point or sometimes for Multi-Point systems depending on the setup. If you are trying to go from one location (say for instance your router), to another location, this is the type of antenna we recommend. Directional antennas are Backfires, Yagi, Panel and dish type antennas.

Fig 1.6.2.4

Omni-Directional

This is the common "Base" antenna used for Point-to-Multi-Point or can be an omni-directional antenna for your car. An Omni-Directional antenna would serve as your main antenna to distribute the signal to other computers or devices (such as wireless printers, PDAs, etc) in your workgroup. You can use 2 Omni-Directional antennas for a point to point system, but this is usually not recommended because there is no real point to distributing your signal all over the place when you only want to going from point A to point B. Please refer to Directional antennas above. Typical Omni-Directional WiFi antennas consist of Vertical Omnis, Ceiling Domes, Rubber ducks, Small Desktops and Mobile vertical antennas.

1.6.2.5 Wireless Adapter

Wireless adapters are electronic devices that allow computers to connect to the Internet and to other computers without using wires. They send data via radio waves to routers that pass it on to broadband modems or internal networks. Most laptops and tablet computers have built-in wireless adapters, but you often have to install them on desktop computers. Before adding them to office desktops and establishing a wireless network in your office, the kind of adapter you get must match your needs.

Fig 1.6.2.5

- Wireless adapters can be of three types:
- Wi-Fi
- Broadband Cellular
- Bluetooth

1.6.3Understanding Different Wireless Technologies

Wireless technologies are used for data transmission through IR signals or radio waves. Bluetooth, IR and radio waves are some of the wireless technologies available in the market. Wireless technologies are used for things as simple as making a phone call or as complex as letting the sales force get information from an ERP application.

1.6.3.1 The Bluetooth Technology

Bluetooth is a wireless technology used to transfer data between different electronic devices. The distance of data transmission is small in comparison to other modes of wireless communication. This technology eradicates the use of cords, cables, adapters and permits the electronic devices to communicate wirelessly among each other.

1.6.3.2 The IR Technology

IR wireless is the use of wireless technology in devices or systems that convey data through infrared (IR) radiation. Infrared is electromagnetic energy at a wavelength or wavelengths somewhat longer than those of red light. The shortest-wavelength IR borders visiblered in the electromagnetic radiation spectrum;the longest-wavelength IR borders radio waves. IR wireless is used for short- and medium-range communications andcontrol. Some systems operate in *line-of-sight mode*; this means that theremust be a visually unobstructed straight line through space between the transmitter(source) and receiver (destination).

IR wireless technology is used in intrusion detectors; home-entertainment control units; robot control systems; medium-range, line-of-sight laser communications; cordless microphones, headsets, modems, and printers and other peripherals.

1.6.3.3 The Radio Waves Technology

Radio waves are a type of electromagnetic radiation with wavelengths in the electromagnetic spectrum longer than infraredlight. Radio waves have frequencies as high as 300 GHz to as low as 3 kHz, though some definitions describe waves above 1 or 3 GHz as microwaves, or include waves of any lower frequency. At 300 GHz, the corresponding wavelength is 1 mm (0.039 in), and at 3 kHz is 100 km (62 mi). Like all other electromagnetic waves, they travel at the speed of light. Naturally occurring radio waves are generated by lightning, or by astronomical objects.

1.6.4 Exploring Different Types of Wireless

Many types of wireless communication systems exist, but a distinguishing attribute of a wireless network is that communication takes place between computer devices. These devices include personal digital assistants (PDAs), laptops, personal computers (PCs), servers, and printers. Computer devices have processors, memory, and a means of interfacing with a particular type of network.

Following are the types of Wireless Networks

* WLAN
* Wireless Wide Area Network (WWAN)
* Wireless Personal Area Network (WPAN)
* Mobile computing

1.6.4.1 WLAN: Wireless Local Area Networks

WLANS allow users in a local area, such as a university campus or library, to form a network or gain access to the internet. A temporary network can be formed by a small number of users without the need of an access point; given that they do not need access to network resources.

1.6.4.2 WWAN: Wireless Wide Area Networks

These types of networks can be maintained over large areas, such as cities or countries, via multiple satellite systems or antenna sites looked after by an ISP. These types of systems are referred to as 2G (2nd Generation) systems

1.6.4.3 WPAN: Wireless Personal Area Networks

The two current technologies for wireless personal area networks are Infra Red (IR) and Bluetooth (IEEE 802.15). These will allow the connectivity of personal devices within an area of about 30 feet. However, IR requires a direct line of site and the range is less.

1.6.4.4 Mobile Computing

Mobile Computing is a technology that allows transmission of data, voice and video via a computer or any other wireless enabled device without having to be connected to a fixed physical link. The main concept involves –

* Mobile communication

- Mobile hardware
- Mobile software

1.6.5 Understanding Wireless Network Security

Wireless security is the prevention of unauthorized access or damage to computers using wireless networks. The most common types of wireless security are Wired Equivalent Privacy (WEP) and Wi-Fi Protected Access (WPA). WEP is a notoriously weak security standard. The password it uses can often be cracked in a few minutes with a basic laptop computer and widely available software tools. Many laptop computers have wireless cards pre-installed. The ability to enter a network while mobile has great benefits. However, wireless networking is prone to some security issues.[1] Hackers have found wireless networks relatively easy to break into, and even use wireless technology to hack into wired networks.[2] As a result, it is very important that enterprises define effective wireless security policies that guard against unauthorized access to important resources.[3] Wireless Intrusion Prevention Systems (WIPS) or Wireless Intrusion Detection Systems (WIDS) are commonly used to enforce wireless security policies.

1.6.5.1 The SSID Technology

A service set identifier (SSID) is a sequence of characters that uniquely names a wireless local area network (WLAN). An SSID is sometimes referred to as a "network name." This name allows stations to connect to the desired network when multiple independent networks operate in the same physical area. Each set of wireless devices communicating directly with each other is called a basic service set (BSS). Several BSSs can be joined together to form one logical WLAN segment, referred to as an extended service set (ESS). A Service Set Identifer (SSID) is simply the 1-32 byte alphanumeric name given to each ESS.

1.6.5.2 The MAC Address Filtering Technology

 MAC Filtering (or GUI filtering, or layer 2 address filtering) refers to a security access controlmethod whereby the 48-bit address assigned to each network card is used to determine access to the network. MAC addresses are uniquely assigned to each card, so using MAC filtering on a network permits and denies network access to specific devices through the use of blacklists and whitelists.MAC filtering is also used on enterprise wireless networks with multiple access points to prevent clients from communicating with each other. The access point can be configured to only allows clients to talk to the default gateway, but not other wireless clients. It increases the efficiency of access to network.

1.6.5.3 The WEP Technology

Wired Equivalent Privacy (WEP)

WEP is the most widely used Wi-Fi security algorithm in the world. This is a function of age, backwards compatibility, and the fact that it appears first in the encryption type selection menus in many router control panels. WEP was ratified as a Wi-Fi security standard in

September of 1999. The first versions of WEP weren't particularly strong, even for the time they were released, because U.S. restrictions on the export of various cryptographic technology led to manufacturers restricting their devices to only 64-bit encryption.

1.6.5.4 The WPA Technology

Wi-Fi Protected Access was the Wi-Fi Alliance's direct response and replacement to the increasingly apparent vulnerabilities of the WEP standard. It was formally adopted in 2003, a year before WEP was officially retired. The most common WPA configuration is WPA-PSK (Pre- Shared Key). The keys used by WPA are 256-bit, a significant increase over the 64-bit and 128-bit keys used in the WEP system.

1.6.5.5 The WPA 2 Technology

 Wi-Fi Protected Access 2 - Pre-Shared Key, and also called WPA or WPA2 Personal, it is a method of securing your network using WPA2 with the use of the optional Pre-Shared Key (PSK) authentication, which was designed for home users without an enterprise authentication server. WPA2 also improves the security of Wi-Fi connections by requiring use of stronger wireless encryption methods than what the original WPA required.

Unit 1.7: Domestic IT Helpdesk Job Role and Careers

Unit Objectives

At the end of this unit, you will be able to:

1. Understand the role of a Domestic IT Helpdesk
2. Know the learning path of the Job role
3. Careers and growth paths for IT Helpdesk Careers

1.7.1 Skills required in IT Services

IT Services sub-sector requires a wide range of skills that may vary with theorganisation - value stream the organisation is servicing, and at the individuallevel - role and the position. Both soft skills and functional skills are crucial in theindustry and organisations put a lot of effort in building these capabilities. Majorhiring at the entry level is done on the basis of communication/soft skills andanalytical aptitude.

Key Generic Skills Required

- Communication Skills
- Analytical skills
- Problem Solving Ability
- Working with influence

Key Functional Skills Required

- Industry/Domain skills
- SDLC concepts
- Programming skills
- Platform knowledge
- Automated testing
- ERP

1.7.2 Skills required in IT Services

Domestic IT Helpdesk Attendant in the IT-ITeS Industry is also known as a Helpdesk Executive, Service Desk Executive, Technology Support Executive, IT Support Executive , Helpdesk Coordinator.

Brief Job Description: Individuals at this job are mainly responsible for the smooth running of computer systems and ensuring users get maximum benefits from them. Individual tasks vary depending on the size and structure of the organization, but may include installing and configuring computer hardware operating systems and applications; monitoring and maintaining

computer

systems and networks; talking staff/clients through a series of actions, either face to face or over the telephone to help set up systems or resolve issues; troubleshooting system and network problems and diagnosing and solving hardware/software faults etc.

Personal Attributes: This job requires the individual to have thorough knowledge of various technology trends and processes as well as have updated knowledge about IT initiatives. He/she should be highly motivated and energetic with the ability to self-direct daily activities.

1.7.3 Expectations from IT Helpdesk Attendant

To be competent, you must be able to:

PC1. monitor systems to identify promptly automated alerts and **customer service requests**
PC2. validate automated alerts to ensure they are genuine **incidents**
PC3. record and acknowledge **service requests/incidents** using your organization's tools and procedures
PC4. obtain sufficient information from **customers** to accurately identify the nature of **service requests**
PC5. analyze automated alerts to accurately identify the nature of **incidents**
PC6. access your organization's knowledge base to identify solutions/workarounds for **service requests/incidents**
PC7. evaluate the suitability of solutions/workarounds, where available
PC8. use your organization's guidelines and standard scripts to resolve **service requests/incidents** within your level of competence and authority
PC9. refer **service requests/incidents** outside your level of competence and authority to **appropriate people**
PC10. obtain help or advice from **appropriate people**, where necessary
PC11. obtain confirmation from **customers** that **service requests/incidents** have been resolved
PC12. record the resolution of **service requests/incidents** accurately using your organization's tools and procedures
PC13. comply with relevant standards, policies, procedures, guidelines and service level agreements (SLAs) when dealing directly with IT service requests/incidents.

1.7.4 Career Map for IT Helpdesk
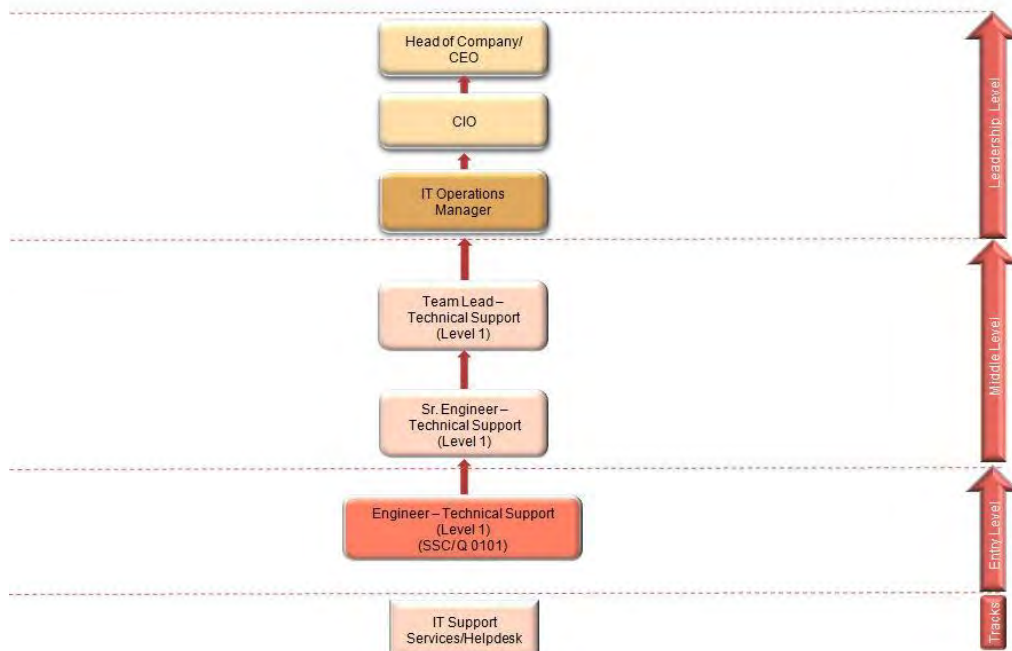
Fig 1.7.4

2. Deal Directly with IT Services Request/Incidents

Unit 2.1 - Understanding the organisation, skills and competencies

Unit 2.2 - Understanding service requests and incidents

Unit 2.3 - Identifying and validating customer service requests

Unit 2.4 - Recording and acknowledging service requests and incidents

Unit 2.5 - Communicating with customers to obtain accurate information

Unit 2.6 – Incident Resolution, Escalation and reporting

SSC/N0220

The Key Learning Outcomes

At the end of this module, you will be able to:

1. Understand the concept of helpdesk, its functions and various types

2. Understand the concepts of 'Service Request; and 'Incidents' and its various types

3. List various helpdesk processes

4. List various activities in the incident management process

5. Identify, validate and record incidents and service requests

6. Understand request fulfilment process

7. Process incidents and service requests for resolution, escalation and closure

8. Understand the function of identifying workarounds and solutions to resolve incidents

9. List various tools and applications used in helpdesk function

Unit 2.1: Understanding Organizational, Skills and Competencies

Unit Objectives

At the end of this unit, you will be able to:

1. Understand the Need and importance of helpdesks
2. Understand the functions and different models of helpdesks
3. Understand the routine activities of a helpdesk associate

2.1.1. Introduction to Helpdesk Function

Technology in today's world has become a necessity of infrastructural foundation for companies. A man made resource to run, stabilise, run towards profits and innovate approach to gauge customer satisfaction. For every business to sustain and maintain its growth, the primary focus is to maintain satisfied customers. The phrase "help desk" comes to life, it is a universal term intended with the concept of creating a single point of entry within a company setting to handle customer service requests.

Help desk staff control the service experience and level of satisfaction of a given situation with the goal to accomplish the following:

- Customer satisfaction / customer retention
- Personal relations
- Technology guidance
- Business posturing
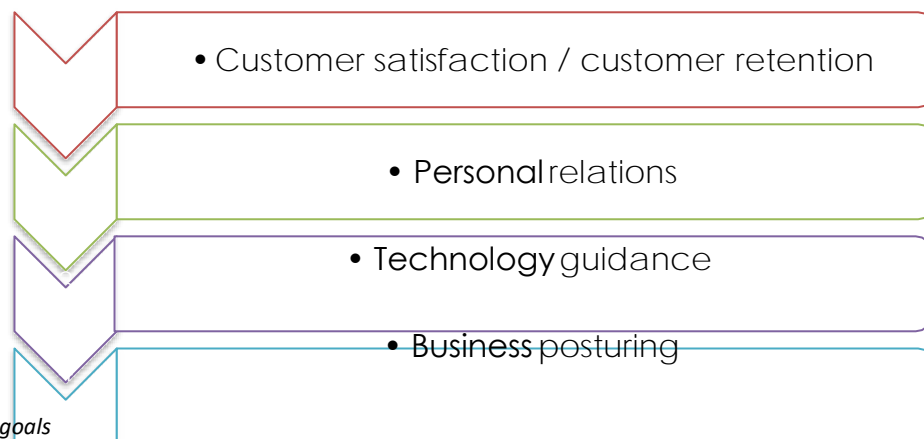
Fig: 2.1 Help Desk goals

A "Help Desk" is a process model or virtual portal through which existing customers interact for support or resolution issues or incidents and form opinions about an entire organization. The image that is created by the help desk reflects who you are and how well you deliver your products and services. From our perspective, the integrated relationship between the help desk and supporting functions is also critical to achieving ultimate performance in the area of customer service.The following graphic depicts the processes and functions that are integral to service delivery.
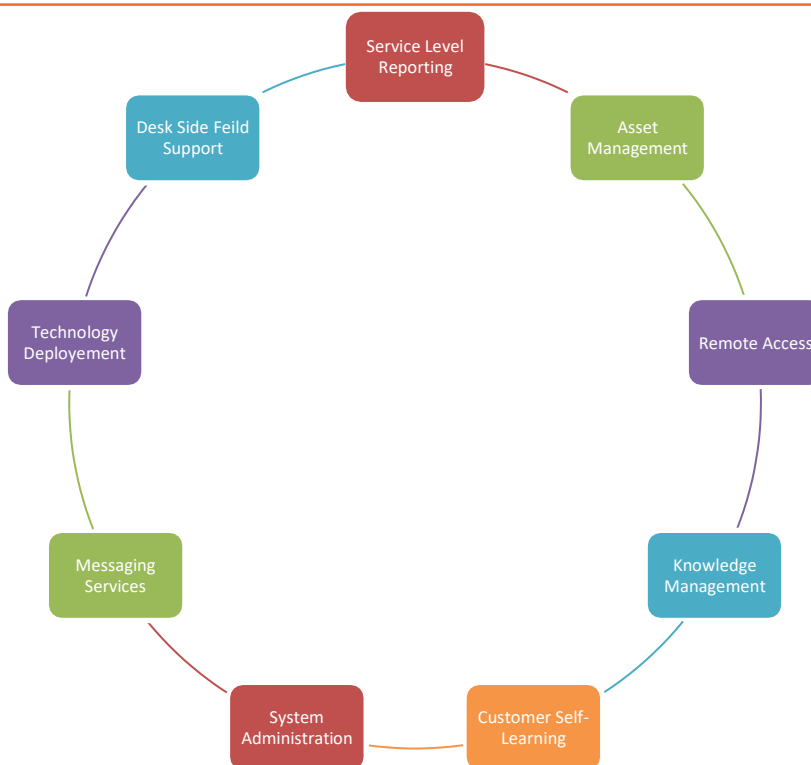
Fig: 2.2Generic elements in operation of Help Desk

2.1.1.1 Helpdesk Technology Function

Software resources that require maintenance and support can include:

- Office applications like MS Office
- Business applications like ERP
- Databases like mainframe or relational
- Desktop and server operating systems
- Middleware applications
- Networking applications

Hardware resources that form the technology infrastructure of an organisation comprise:

- Personal computers and servers
- Networking infrastructure including modems, switches and routers
- Messaging and communication infrastructure meant for email and social media applications
- Internet architecture for Web-based systems like application servers

In organisations, the technical support function includes the maintenance and support of hardware and software resources. In larger organisations, the technical support was generally provided by multiple teams and departments having specific technical expertise.5. Learn about the concept of Service Level Agreement (SLA)

Helpdesk and service desk are the subsets of the technical support functions of an organisation. The following figure shows the importance of the helpdesk function:
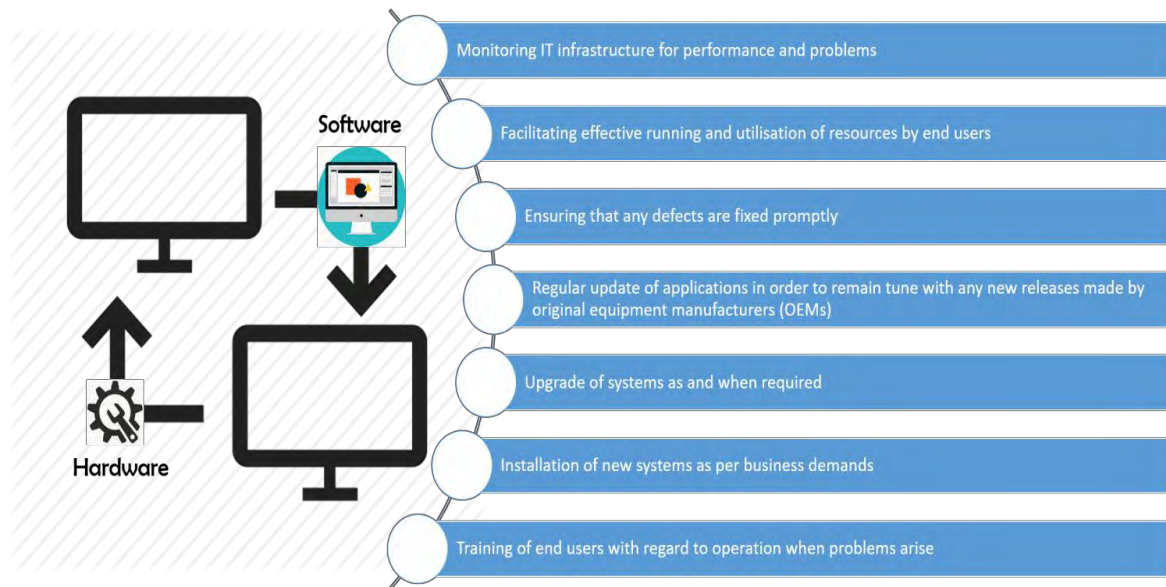
Fig: 2.3Importance of Helpdesk Function

2.1.1.2 Evolution of "DESK" Function

In early years of computing, whenever end users required technical support, the development team used to handle customer requests. However, later it was found that this disrupts the development of new products and systems. As technical support is not the core area of developers, they were not able to handle end user requests efficiently. This led to the formation of technical support teams in organisations.

With growth in the size of organisations and complexity of technology, organisations started realising the importance of technical support and distinguishing between development and support. As a result, organisations started forming specialised technical support teams to cater to the needs of customers; thereby enhancing customer satisfaction.

However, these teams were not able to handle a large number of customer requests. These requests were related to different issues. All this led to the need for establishing a separate helpdesk that can act as a single point of contact for handling customer requests. This was also considered essential to meet quality requirements and ensure customer satisfaction.

With the advent of technological development and increased complexity, customers started facing problems with their software and hardware. As a result, they felt a need to convey their issues to the manufacturer and get them solved. Over the years, the scope of handling customer problems broadened. It extended to selecting and installing software and hardware, network and other technology components; providing on-going support to keep the system in the running

condition, upgrading them whenever required, etc. *As a result, the concept of helpdesk emerged.*

Service desks serve as a point of contact between the service provider and customer for handling service requests, managing problems and making configuration settings. They focus on the smooth functioning of business processes, integrated support, etc.

Activities handled by service desks are shown in the following figure:

- ✓ Aiming to solve 80% of service requests at the first-level support at the helpdesk
- ✓ Handling advanced service requests like resolution of complex technical problems
- ✓ Monitoring systems and networks for status, availability, performance and problems
- ✓ Remote control and diagnosis of systems
- ✓ Change and configuration management
- ✓ Supporting and managing hardware and software installations
- ✓ Electronic distribution of software and release of new applications
- ✓ Monitoring the efficiency and effectiveness of services delivered Change
- ✓ Providing service through multiple channels
- ✓ Conducting training sessions
- ✓ Participating in the development of standards and procedures

Fig. 2.3 Activities Handled by a Service Desk

2.1.2 Different Types of Helpdesks

The major classification of helpdesks is based on end users they serve. The title "End Users" could be referred to an internal users or external customers. An internal helpdesk caters to the requirements of employees of the organisation. However, organisations like Original Equipment Manufacturers (OEMs), who manufacture and sell software and hardware products and services, required to establish a separate helpdesk to cater to the needs of external customers, who purchase and use their products. These are termed external helpdesks. Accordingly, helpdesks can be classified as Internal Helpdesks or External Helpdesks. Helpdesk functions can also be classified based on the extent of support provided, which are shown in the following figure:

If the customer needs support as an individual on a service or on a product they fall under the category of an B2C i.e. Business – to – Customer, for example imaging yourself calling Dell customer support after buying a laptop for a reason being, not having received the mouse as per the offer. The associated you have connected to helps place the order and follows through till complied.

In another instance let's say that you run a training institute and have bought 100 desktops from dell. You would find a few of the dell machine frequently restarting being brand new. You reach out to Dell and request immediate support to resolve the issue. Hence you will be categorised as a B2Bi.e. Business – to – Business support.
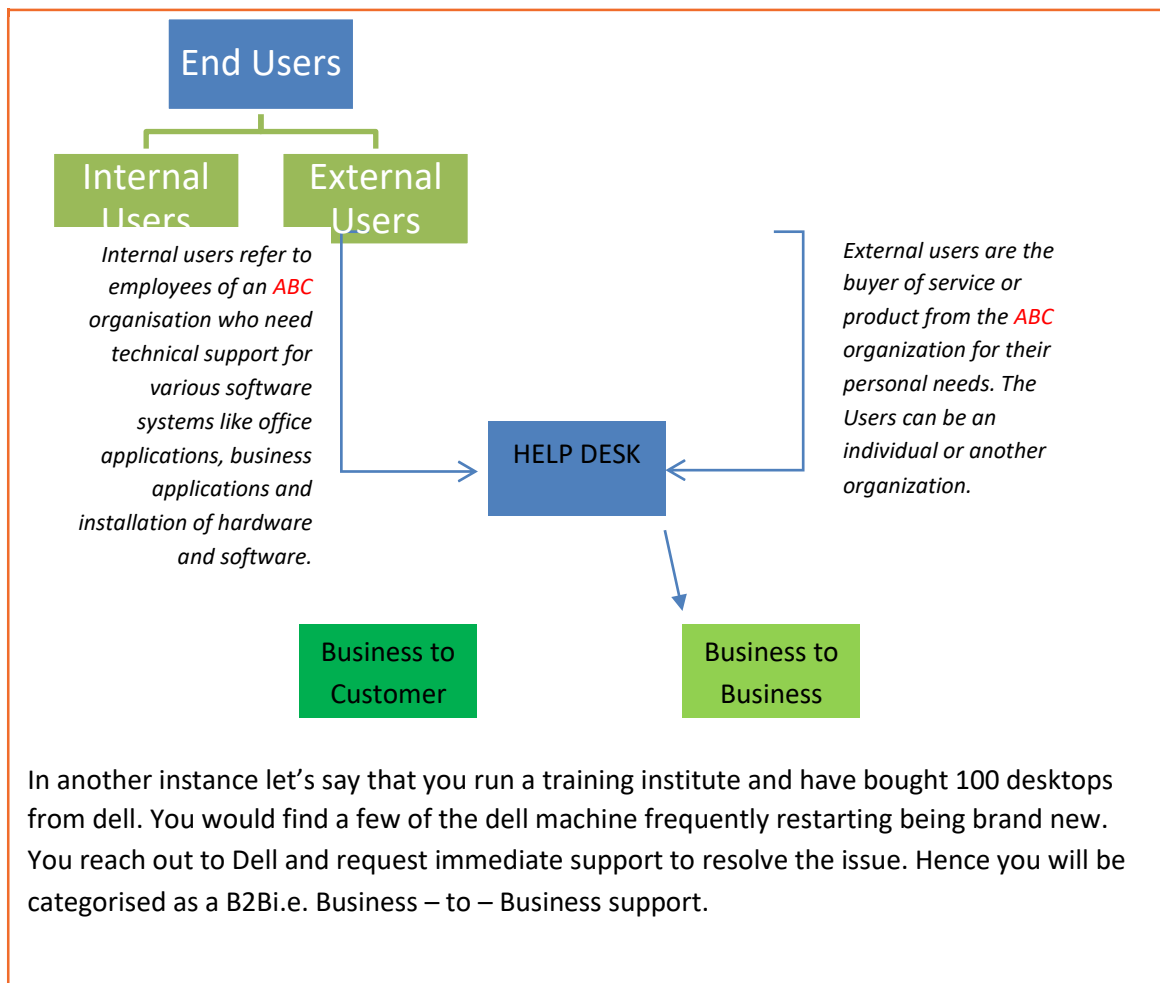
2.1.2.1Distinguishing Call Centres Vs Helpdesk Vs Service Desk

It's observed quite often that call centres, help desks or service desks are generally assumed as the same. The core focus of all remains the same that is customer satisfaction. But still most of the people get call centres and IT help desks mixed up for a simple observation that all three answer our calls and help with our queries or issues that we might be facing. It is true that the line delineating a call centres from an IT help desk is rather blurry, but there are some notable differences.

Call Centres
- Call centers typically have more general duties, often deal with people outside the business or organization, and may make outbound calls.
- Call centers may or may not depend on employee technical skills, but IT help desks require workers with specific technical skills.
- Call centres often deal with calls coming from outside the business. For example, a company that makes consumer software will have a call centre that people who bought that software can call in order to get help with it.
- They're a resource for answers and the exchange of information, providing more general help.

Help Desks
- A Help Desk focuses on end user needs
- A Help Desk provides incident management to ensure customer's problems are resolved in a timely fashion
- It manages a database that keeps track of the IT assets enabling access on a real time basis to information about software and configuration of the IT system.
- Employees call the IT help desk when they have a problem with their computer, software, or peripherals, or when they need to obtain or replace these items.
- A Help Desk with ITIL v3 best practices, is one component of the overall service management and will feed information to a Service Desk through software and process hooks.

Service Desks
- A Service Desk focuses on corporate strategy.
- A Service Desk is a Single Point of Contact between users and IT Service Management.
- It manages information delivery by utilizing Information IT infrastructure Library (ITIL) v3 best practices to deliver these services both with software and defined processes.
- **Very few companies have a Service Desk without a Help Desk.**
- A Service Desk either has to have Help Desk functionality embedded in their Service Desk infrastructure or has the ability to link into a Help Desk offering for the end user.

Fig. 2.5 Main point to differentiate between CC, HD and SD

2.1.2.2 Support levels in Helpdesk

Business is best maintained when there is a classification of challenges for the customers. This is a primary thumb rule for any organization when setting up a helpdesk. Mainly designed to make sure the proper resolution to provided and work around if the resolution takes more time than required. This helps maintain customers trust and retain business. The literal classification may from business to business depending upon the integrity and complexity of the service or product.

- **Support Level 1** : Issues or queries that are very basic or have a very easy resolution to it are generally provided by the company either in a format of a booklet at the time of purchase of the product or on web portal where the customer can log on to perform some basic troubleshooting to resolute the issue or enquire about some basic updates on a particular service. These basic information is generally referred as FAQs (Frequently Asked Questions). FAQs are a repository of solution for the typical issues that customer may face and would be able to perform simple procedure or process towards the solution. There are

time when a customer also calls for such simple issues and they are very gladly attended by the associates to help them resolve their issue(s).

- **Support Level 1.5**: When a customer fails to resolve an issue following the guidelines in the FAQs they reach out to the next level that is Level 1.5. The functions performed at this level are typical helpdesk, such as monitoring events, tracking data center activities, passwords resets, running scheduled jobs, access management, Active Directory management etc. It requires the associate at times to probe to the customer to understand the exact nature of issue and then accordingly assist to resolve it. In any case if the associate misses out the right probing questions or in other words assumes what the might be it can lead to chaos, a lot of effort and time may be lost. Which in other words is a cost to the company. If the issues requires expert technical, function skills access to some restricted application for some modification it is then passed on to the next level, Level 2 or Level 3.

- **Support Level 2** : Complex problems that cannot be solved at level 1 are routed here. Peopleproviding level 2 support are specialized in application support and onsite support. Associates at this level are well versed with the technology integration which specializes them in understanding complex issues to resolve them.

- **Support Level 3** : This refers to support provided for advanced technical problems by software designand development teams and problems that require a solution from software and hardware vendors related to applications. Basically disaster management or BCP initiation is required also at times.

2.1.2.3 Categorising Helpdesk – Centralisation and Decentralisation

Every organisation stands out with its technology infrastructure capability with the nature of customer it caters to. Helpdesks or service desks can also be distinguished between centralised and decentralised ones. Some organisations have a single centralised service desk that supports all technologies used by its external customers.

Customers enjoy services from a single point of contact and need not worry about whom to call for their specific problems. This allows an efficient and cost-effective method of delivery for organisations.

A centralised helpdesk may be located on a single physical location or at different locations based on technical area or customer segment but serviced through a virtual helpdesk using sophisticated telecommunication systems. In this case, calls may be routed through a single call centre. Organisations also keep level-one service professionals at centralised helpdesk and route complex problems to analysts located in remote offices. The following figure

shows various types of helpdesks based on centralisation:

Centralised Helpdesks	Decentralised Helpdesks	Vitual Helpdesks

Single point of contact

Sepretae helpdeks based on services or locations

Multipls helpdeks operating through single contact centre

Includes all services in its scope

Caters no specific needs of customers by focussed service

Centralised from cutomers perspective of business

Efficient and cost effective delivery

Fig. 2.6 Different Types of Helpdesks Based on Centralisation

The other alternative to centralised helpdesks are decentralised Helpdesks. Decentralised helpdesks are generally designed on customer request. It can help them reach faster resolution to the issues by connecting with relevant experts as single POC or directly. Some global corporations have local or regional service desks for meeting customer or client needs of specific locations. These service are general y integrated using "Virtual Service Desks".

Apart from helpdesks mentioned in the previous section, there are also helpdesks that are run by an external vendor called outsourced helpdesks. Organisations may outsource helpdesk activities to an external vendor who can provide better customer service due to economy of scale, expertise and lower labour costs advantages.

Some major helpdesk activities, which are outsourced, are hardware support and maintenance, after-hours service, multilingual support, out of country support and proprietary application support. Outsourcers act as an external helpdesk when they provide help for end users and internal helpdesk when they provide service for the employees of client organisation.

Large organisations may decide to outsource all or part of technical support services. The nature of services offered by outsourced helpdesks can include network monitoring and management, system administration, remote diagnostics, traditional helpdesk activities and training.

2.1.3 Helpdesk – Roles, Skills and Competencies

We are well aware that every organisation are developed with a specific hierarchy to maintain business control and objective, similarly Helpdesks normally consist of two primary job categories of management personnel and frontline service providers. The management category includes team leaders and supervisors, helpdesk managers and senior management professionals. They set, monitor and manage helpdesk processes, procedures, and performance criteria in the same way the management personnel of

other departments perform in Helpdesk are designated with respect to the level of skill required in a project belt set by the client expectations or by footfall of issues. Generally the front line associates attend general issues reported either by call, chat or email. Which are referred as HRT (high resolution tickets) tickets, and are in large volume. The second set of team are refers are incident managers. Here these IMs take care of issues such as change management, data Monitoring, and Storage issues. They also take remote sessions in complex technical issues for installation or path setup for application data pockets. They sometimes also take simple front line issues in case of a stake holder require support for password resets or AD updates.

The final level consists of people with in-depth knowledge of IT infrastructure and ability to adhere to situations in disaster management or high priority tickets which have critical business impact. They are referred as ICs – Incident Commanders.

Incident Commanders
- ✓ In depth Knowledge of ITIIL
- ✓ Exceptional customer handling skills
- ✓ Good communication, hands on technology, analytical skills & leadership skills

Incident Managers
- ✓ Provide Level 1 support by solving basic issues
- ✓ Customer service skills
- ✓ Good technical and analytical skills

Analyst
- ✓ Log the call and route it to appropriate field/technical personnel
- ✓ Excellent interpersonal skills
- ✓ Ability to efficiently follow processes and procedures

Fig 2.7

Frontline service providers, on the other hand, are ones who actually provide helpdesk service to customers. Typically, there are three types of roles of frontline service providers. In organisations, there are cases where the requirement is only to log the call and route it to appropriate personnel for resolution.

For example, in the case of hardware equipment manufacturers, if a customer logs a hardware incident, helpdesk only needs to diagnose and verify the incident and then dispatch field service personnel for resolution. Helpdesk personnel who handle customer contacts by accurately logging incidents and then routing them to appropriate specialists for resolution are called dispatchers or customer care agents. They are also called customer service representatives, call screeners, helpdesk agents, etc.

Depending on the organisation, they may own the incident or transfer ownership to those to whom the incident has been routed to. Such level 1 helpdesk attendants are expected to have excellentinterpersonal skills, high degree of customer service orientation and

ability to efficiently follow processes and procedures.

As discussed earlier, organisations nowadays aim at resolving the maximum number of issues at the first level of contact with customers. This is in tune with customers who are not willing to wait for a solution. Towards this requirement, helpdesks seek to staff first line personnel who are well equipped to handle most problems at the first point of contact itself. These roles are of level 1 analysts or helpdesk analysts or service desk analysts, etc. This helpdesk role requires handling customer contacts, logging customer requests, answering service requests and resolving incidents. Only if the resolution is not possible, and analytical skills, problem solving skills and sound knowledge on the software/hardware platforms.

The third role of helpdesk service personnel is a specialist role. Personnel performing a specialist role are called service/helpdesk specialists. They are required to research, analyse and resolve complex incidents that require higher skill level and authority. These incidents are normally routed to them by Level One Specialists for whom such incidents are either too complex or not resolvable within the designated time. The existence of such role allows helpdesk agents and level one specialists to continuously focus on incoming customer calls and incidents instead of being bogged down by few complex issues. In some organisations, Level One Specialists might own all incidents in order to allow frontline personnel to focus on new calls. This also allows organisations to strike a right balance between the need to respond quickly to customers and resolve incidents accurately and optimally. This role requires in-depth subject matter expertise on the technical area involved in addition to other skills discussed earlier.

The following figure shows the primary responsibilities of helpdesk:
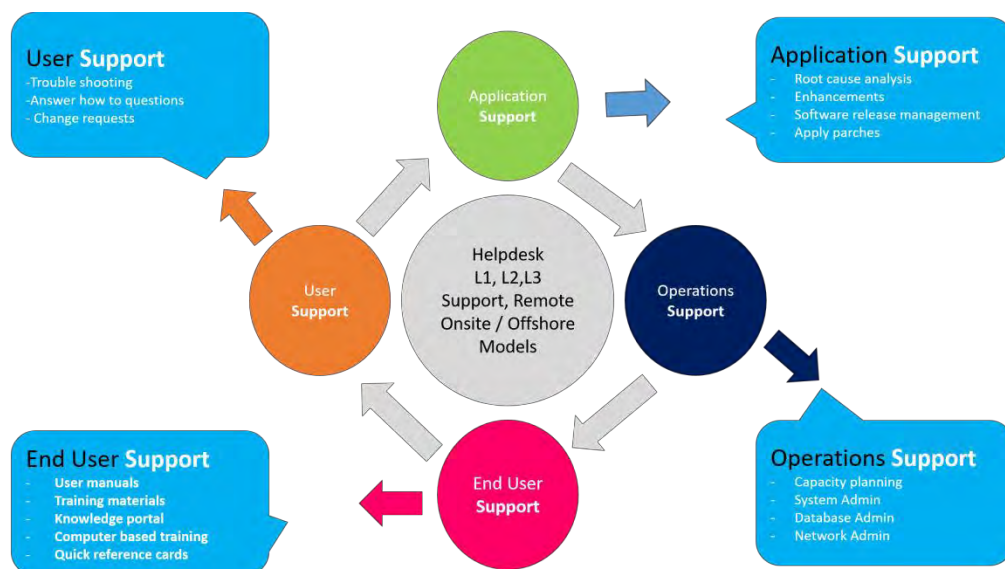
Fig. 2.8Primary Responsibilities of Helpdesk

A helpdesk attendant is expected to perform the following roles as part of incident management function on a daily basis:

- Receive customer through telephone, e-mail, web and other channels.
- Gather required information about the incident and validate the incident.
- Log each contact with description of the incident or service request.
- Raise the ticket in the service desk application with all adequate details like incident description, incident category, priority, etc.
- Perform an initial diagnosis of the incident.
- If required, perform root-cause analysis and identify the underlying causes of the problem. Identify any possible workarounds or a solution based on past incidents.
- Deliver a solution based on utilising technical knowledge/skills by following procedures and processes, and/or based on organisational knowledge base repository.
- Document the solution for re-use.
- Record all steps taken by the helpdesk and the customer in the process of resolving the incident.
- If the incident is not resolvable at his level, communicate with the customer about the likely resolution time for the incident.
- Escalate promptly the incidents that are not resolvable at his level to the next level analyst/ specialist pertaining to the area and retain ownership of incidents. Also, escalate incidents that have reached the target SLA time.
- Constantly update all stakeholders on the status through applicable channels as per the procedure.
- Follow up with the customer to ensure that the incidents are resolved to his satisfaction.
- Close the ticket on resolution and store the information for the future use.

Though considered to be an entry-level position in the past, helpdesk roles are now recognized as skilled profession requiring specific skills, knowledge and competencies. The following figure shows the skills required for the success of the helpdesk role:

Fig. 2.9 Primary skills of Helpdesk
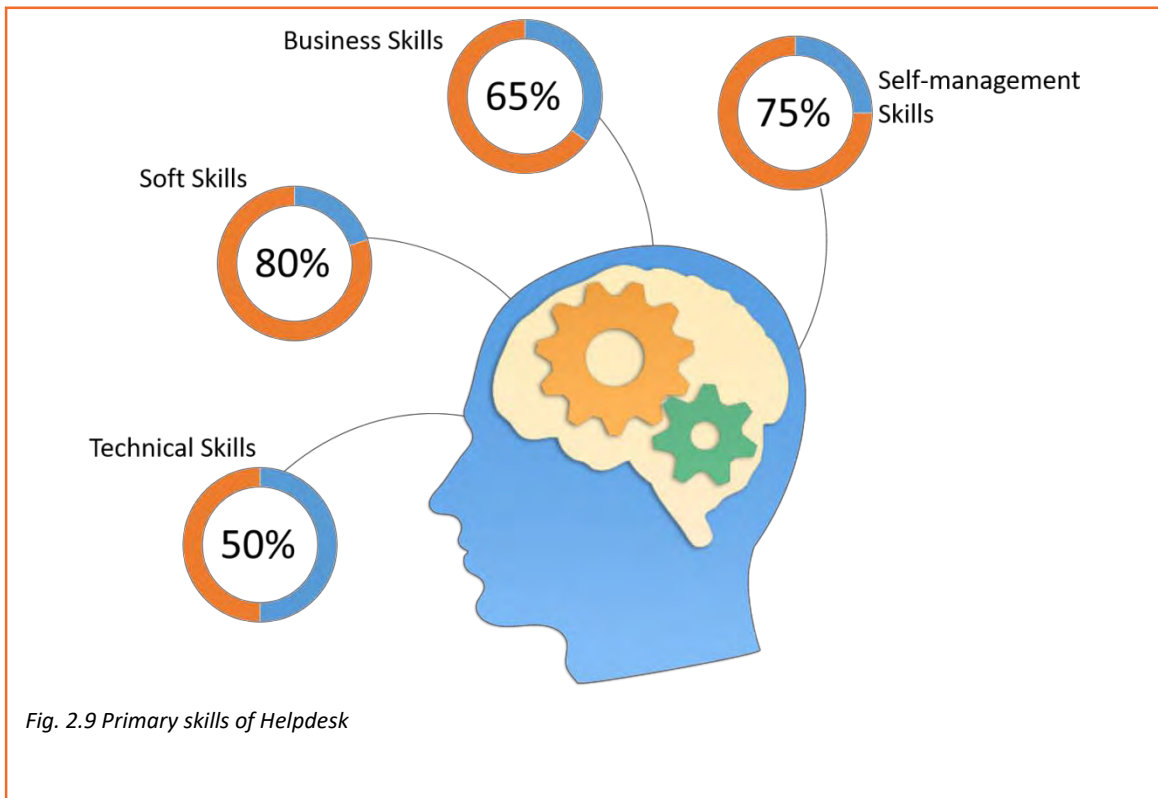
2.1.4 Helpdesk Policies and Procedures

Helpdesk is expected to deliver consistent and quality service to customers in a cost- effective and timely manner. In order to achieve this, it is necessary for helpdesk attendants to have good knowledge on organisational policies and procedures, customer- related procedures and guidelines and their compliance, etc. The following figure shows helpdesk policies and procedures:

The approach to incident management describes organisational functions involved in the incident management process, procedures that need to be followed, supporting tools to be used and roles and responsibilities. Helpdesk policies may require the following steps in managing incidents:

1. Define criteria for identifying an incident.
2. Define criteria for deciding on severity, priority and urgency of incidents and actions to be taken based on severity levels.
3. Define categories for incidents and criteria for determining the category.
4. Describe how responsibility for processing incidents is assigned and transferred:
   4.1. Who is responsible for addressing underlying causes of incidents? Who is
   4.2. Responsible for monitoring and tracking the status of incidents?
   4.3. Who is responsible for tracking the progress of actions related to incidents and escalation procedures?
   4.4. How responsibility for all of these elements is assigned and transferred?
5. Identify mechanisms that customers can use to report incidents

6. Define methods and tools that can be used for incident management.
7. Describe procedures for notifying stakeholders
8. Identify requirements on the amount of time defined for the resolution of incidents in the service agreement.

2.1.4.1 Understanding Organizational Policies and Procedures

Helpdesks play the critical role of ensuring that business processes or productivity factors are not impacted by technical problems that can be easily resolved by appropriate and constant attention and technical expertise. In order to ensure this, helpdesks rely on carefully designed policies and procedures that facilitate efficient helpdesk operations.

With regard to organisational policies and procedures, helpdesk personnel should have good knowledge in certain areas, which are shown in the following figure:

1. • Organisational structure including that of helpdesk organisation and management
2. • Organisational culture, policies and procedure
3. • Helpdesk organisation, workflow, policies, processes and procedures
4. • Knowledge of helpdesk tools and infrastructure including communication and network infrastructure, incident management software, remote diagnosis tools and performance monitoring tools
5. • Work appraisal criteria and related procedures

Fig. 2.10 Essential Knowledge on Policies and Procedures required for Helpdesk Personnel

The primary purpose of helpdesk policies and procedures is to:

- Ensure that customers always receive consistent and high quality service
- Improve and extend the overall service provided to end users
- Describe processes to be followed for meeting various helpdesk organisational objectives
- Document workflows to be followed for various types of activities and roles and responsibilities Specify various reports applicable that are provided to management authorities

For example, with regard to incident management, documented procedures specify various activities that are to be taken in the process of resolution of incidents and steps involved. For incident resolution, this includes activities regarding collecting information about the user and the application, criteria for identifying and validating incidents, method of assessing the severity of the problem, criteria for categorising incidents, procedure to create ticket for the incident, method of resolving problems, escalation procedures, closure procedure and usage

of knowledge base.

Apart from processes and procedures discussed in the previous section, policies of the helpdesk organisation also detail:

1. Hardware and software that are supported by helpdesk in general (it may vary depending on SLA)
2. Organisational performance or operating level parameters and metrics with regard to the standard of service which the helpdesk is expected to meet. For example, it might specify the length of time helpdesk personnel can take to perform various tasks like resolution of incidents and fulfilment of service requests. The standard target resolution time can vary between few minutes to several days depending on the nature and magnitude of problem/service request.
3. Communication protocols to be followed for escalation, resolution and closure of incidents.

Organisational policies and procedures are generally benchmarked against best practices. There are many frameworks available for implementing and benchmarking service management.

The three important frameworks meant for IT service management are:

1. The ITIL (Information Technology Infrastructure Library) version 3—the widely known and followed framework for IT service management
2. Microsoft's MOF (Microsoft Operations Framework)
3. ISO/IEC 20000—ISO's International Standard for IT Service Management

ITIL Information Technology Infrastructure Library is based on a service lifecycle approach and consists of several phases. The following figure shows the phases of service lifecycle:

Fig. 2.11 Phases of Service Lifecycle

2.1.4.2 Understanding SLA

SLA is an agreement made between a helpdesk organisation and the client organisation towards providing IT services. Agreement details are arrived based on negotiations between the management of helpdesk organisation and the customer. SLAs could be complex and legally binding contracts depending on parties involved and whether services are offered to external customers or internal customers.

The purpose of entering into SLA with a customer is to: **zz**Ensure that helpdesk services meet the client's needs

- Ensure that helpdesk and customers have same expectations about offerings

- Ensure that helpdesk and customers clearly understand their respective duties and responsibilities **zz**Provide service level targets and measurable performance metrics

- Serve as a reference document for communication between two partiesSLA is a written document that provides the following information:

- Various IT services the helpdesk commits to provide to a particular customer

- Duties and responsibilities of the helpdesk and the client with regard to services offered

- High-level procedures to be followed by customers and helpdesk in reporting and resolving incidents

- Service-level targets agreed for service offerings

- Methods for the measurement of service performance

The following figure shows the basic components of an SLA agreement:

Service description and scope

Stakeholder information

Hours of service

Availability and capacity targets

Priority matrix and response targets

Metrics and review information

Escalation paths and procedures

Penalties and/or chargeback information

Costs of services

Signature and review dates
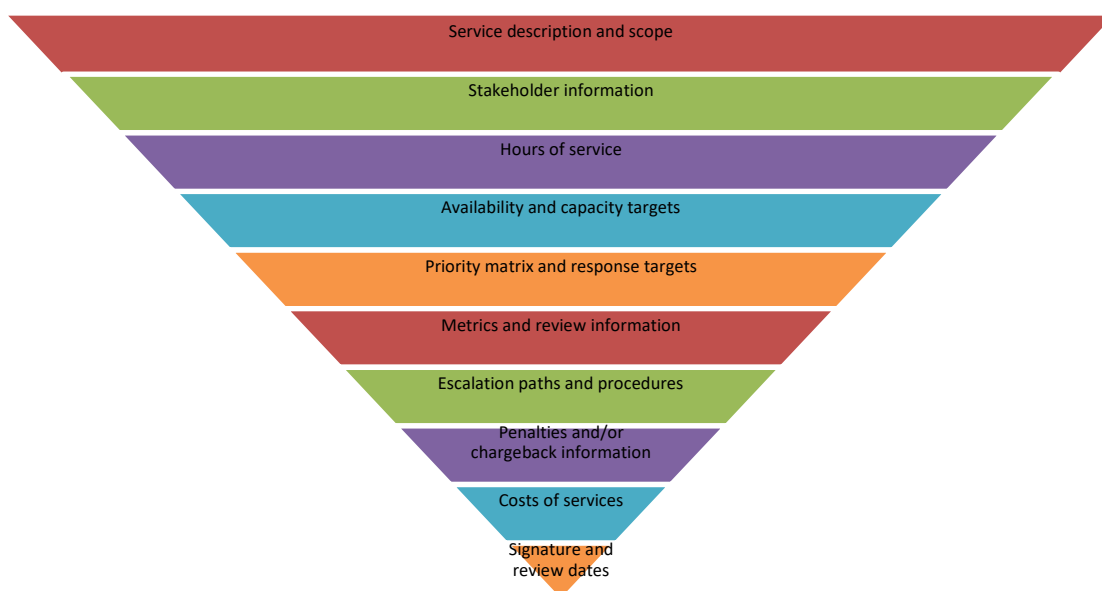
Fig. 2.12 Components of SLA Agreement

Some important performance metrics that may be included in SLA agreements are

shown in the following figure:
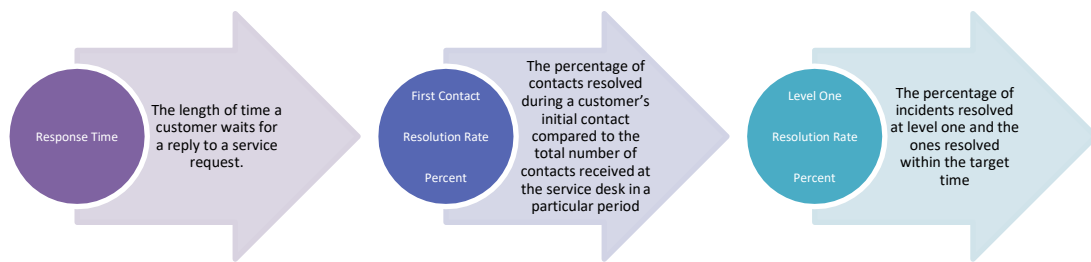
2.1.4.3 Understanding Coding

As part of the incident management process, sometimes it may be necessary to do code changes. This is more so with organisations expecting to resolve most of the incidents at level 1. These organisations require helpdesk analysts to be proficient with technical skills including that of coding, which is actually a development activity.

There could be cases where minor changes to software applications might be required to implement a solution to an incident resolution (remember however that any coding changes would undergo configuration and change management processes). While doing such changes, support personnel should ensure that proper coding standards are followed. This ensures consistency, maintainability, understands ability; facilitates easy testing and bug fixing; promotes traceability; improves quality and complies with overall quality standards.

Exercise

List down primary responsibilities of a helpdesk attendant and his various daily routine activities.

_____
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_____
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_____

Unit 2.2: Understanding Service Requests and Incidents

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Understand the concept of an incident
2. Understand the concept of a service request
3. Understand the examples for incidents and service requests

2.2.1 Concept of Service Requests

A helpdesk or service desk is a single point of contact within an organisation for managing both customer incidents and service requests. A service request is a request from a user for information, advice or any change in standards. A standard change is a pre-approved change that is low risk and follows a procedure. Some examples of basic service requests are answering how-to questions, resetting a password, providing or moving equipment for new employees. Apart from these, service requests can also be based on a service agreement whereby end-users can notify the helpdesk, of their needs for specific instances of service delivery. As against the incident management process, service requests are handled through the request fulfilment process. Incidents and service requests may be pertaining to several IT resources. Some of these IT resources are shown in the following figure:

1

Business applications

2

Client systems containing desktops, servers, databases, etc.

3

Network communication infrastructure like routers, switches, modems, etc.

4

Printing software and hardware
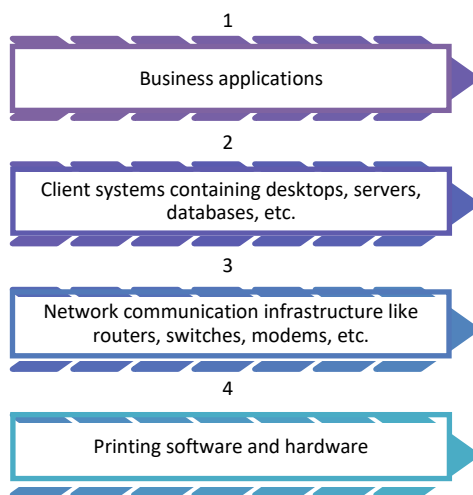
Fig. 2.13Some IT Resources on Which Incidents and Service Requests are Raised Agreements

Incidents and service requests may be further classified based on the nature of products involved like laptop, desktops, PCs, mobile phone, PDA, standard and non-standard applications, routers, switches, etc.

2.2.1.1 Types of Service Requests

A service request identifies one or more desired services that a customer expects to be fulfilled by helpdesk as per the service agreement. Service agreement describes various services to be delivered and service level targets.

Service requests, falling within a service agreement, could be either one of the following types:

A. Those that are delivered on a continuous or scheduled basis.
B. Those that are identified over time by customers as their needs develop on an ad-hoc basis

The following figure shows the examples of service requests:

Add, Modify and Delete User to a software application, Pass word reset.

Add extra software, hardware, product or service within the scope of SLA

Modify/Delete environment variables pertaining to a product or service including modifications to software applications, PC, laptop, mainframe or desktop servers, etc.

Backup and recovery, Maintenance, Batch processing

Printing, Scheduled outage,

Advice and guidance, Training, Reporting

Relocate products or services within client environment

Fig. 2.14 Examples of Service Requests

Further, there can be various scenarios when service helpdesk support is required for internal customers. The following list shows the example of service helpdesk support for internal customers:

- Assisting new employees to create accounts or configure machines

- Aiding existing employees based on company policies on data retention

- Aiding travelling users with remote sessions

- Aiding users with no Internet access (through phone)

- Aiding visitors in an organisation

- Aiding employees who follow the Bring Your Own Device (BYOD) as company policy

- Aiding employees with standard service issues

Following is a list of common tasks for internal users.

- Install a desktop or laptop

- Install a printer

- Upgrade an application for one or more users

- Update a user's password

- Replace a printer's ink or toner cartridges
- Update documentation
- Develop user guides for internal software or processes
- Run duplication software on archival data
- Troubleshoot a problem someone is experiencing
- Order software or hardware for new employees
- **C**reate, work on and close service tickets
- Make rounds to see how employees are doing
- Collect inventory data
- Verify success or failure of backup jobs
- Rotate backup media
- Create virtual machines to test software patches for general deployment
- Install new typefaces for use in creative work
- Migrate data from a user use in drive to a new, larger drive, install and test
- Upgrade RAM in desktop and laptop systems
- Install new networking equipment Configure new rules for firewall access
- Image new computers and create account for use by new users Implement virtual servers for use by various departments
- Advise users on implementing better ergonomics to prevent repetitive stress injuries
- Test software for potential deployment within the organisation
- Recover lost files from a backup remotely
- Disable a lost mobile device Research products for a hardware upgrade
- Review web server logs for signs of possible incursion
- Assist users in the field with connecting to mobile networks
- Configure accounts for VPN access

All kinds of service requests should be recorded, tracked and resolved through the request fulfilment process.

2.2.2 Concept of Incidents

Incidents are defined as unplanned interruption to an IT service or reduction in the quality of an IT service. An incident can also be a failure of an IT component that has not yet impacted any service. Incidents are events which, if not resolved properly, can eventually cause the helpdesk organisation to break its service commitments to customers. Incidents can be indications of interruptions or potential interruptions to a service. An example of interruption is when a software application is down during normal business hours. Potential interruption means

possible downtime in the future.

Note: ITIL differentiates between incidents and problems. Problems are the causes for one or more incidents. Problems are required to be managed by the problem management process.

Customer complaints regarding potential interruption to business operation should also be treated as incidents. Though there may not be any immediate incident that has affected a service, the complaint might indicate that the customer perceives that the service does not meet his or her expectations. It may have potential to become a problem affecting services in the future.

2.2.2.1 Types of Incidents

An incident can be defined as any event that is not the part of the standard operation of a service and causes or may cause an interruption to, or a reduction in, the quality of that service. It may also include the failure of a configuration item (CI) that has yet not affected a service, but could likely impact the service if left unresolved by the internal staff.

The figure below shows various channels through which incident information can reach the service desk. As discussed earlier, organisations may also have self-service portals that provide Level 0 support. If a customer is not able to resolve the issue through self-service applications, he may resort to the service desk. The following figure shows the flow of incident information:

Phone	Video	Email	IM	Web	Kiosks	Media

Service Desk Agent	Automated Listeners
Service Desk	

Generated Ticket

Internal Support	External Support	Product Support	Product Specialists
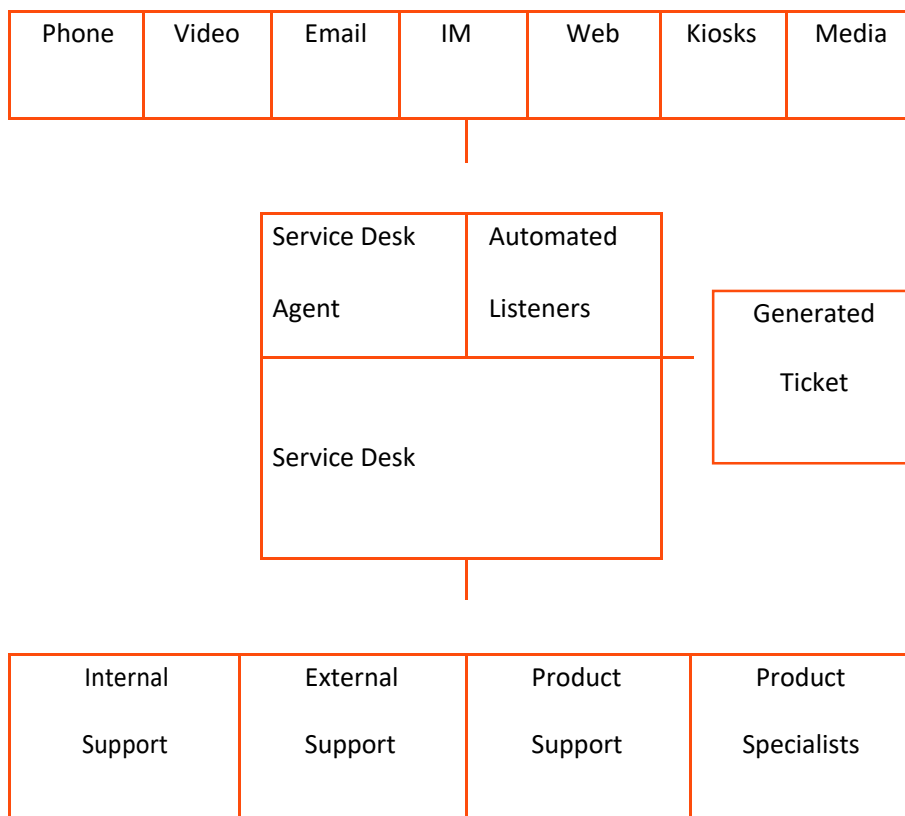
Fig. 2.15 Flow of Incident Information

The following List shows the basic examples of incidents:

- Issues pertaining to the regular operation of hardware

- Issues pertaining to regular operation of software

- Issues pertaining to performance within technology environment consisting desktops, servers

- Issues pertaining to security of resources

- Issues pertaining to operating environment

- Unscheduled outage

As part of helpdesk activities, a helpdesk attendant may also help customers by answering questions such as "How to do…" and "When a particular thing…"etc. These generic customer requests and inquiries for information are generally not treated as regular incidents (though organisations may require them to be recorded for informational purpose) as these have low impact on the business. Helpdesks generally aim to get these questions resolved through self-help applications so that such questions are not routed to helpdesk.

Exercise

Define and differentiate between a service request and an incident

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Unit 2.3: Recording and Acknowledging Service Requests and Incidents

Unit Objectives

At the end of this unit, you will be able to:

1. Learn about the different modes of delivering helpdesk support
2. Learn about the identification and validation of incidents
3. Understand the concept of automated alerts

2.3.1 Modes of Delivering Helpdesk

Various methods used for delivering helpdesk support are as follows:

- Assisted service consisting of telephone support, web-based support, onsite support, remote controlof systems, email, instant messaging and chatting.
- Using self-service applications, knowledge bases, online documentation, tutorials and interactivevideos. Self-service applications include Web-based systems, faxback systems, IVR/AVR based systems, online training tutorials, support blogs, online help systems, customer forum groups and Learning Management Systems (LMS).
- Automated remediation techniques for providing 24x7 response to issues and minimising impact ofservice failures. Such self-healing technology can identify when an issue has occurred and can initiate a remedial or corrective action to restore the system.

While deciding on the mode of support, several factors should be considered. This include product or application being supported, impact and urgency of the incident, complexity of the problem, SLA clauses, location of the customer, time zones involved, helpdesk hours of operation and availability of remote tools and other applications.

2.3.2 Identifying and Validating Incidents

When validating Incidents, it is the responsibility of the Incident Coordinator to determine if the ticket is assigned, prioritized and categorized correctly. There are instances when a customer is not able to understand the issue and may raise ticket to high priority which may unnecessary raise of concern. It could be avoided at the initial step when the Associate validates the issue for the customer.

At times the associated plays an important role to discover an unplanned outage by probing some technical scenario based question and identify the issue for proper sourcing of resolution in a timely manner.

Below is a list of incidents that can be recognised by different means:

- Incidents reported by a customer to a helpdesk by phone

- Incidents reported by end users through a Web form and other channels
- Incidents detected by automated detection systems
- Incidents derived from the analysis of anomalies in the data collected
- Monitoring and analysing external sources of information

2.3.3 Concept of Automated Tickets

Incident management applications may also allow automatic ticket creation based on channels such as email, Integrated Voice Recognition (IVR) and Computer Telephony Integration (CTI). Incidents may also be created by technical staff when there are any disruption to normal operation.

2.3.3.1 Response to Incidents and Service

Before logging incidents and service requests, it is necessary for a helpdesk attendant to identify and verify the same. The detection and identification of incidents or potential incidents is done through constant monitoring, trend analysis and observation. This process is generally called incident recognition. After the incident is identified, and before trying to resolve the incident, a helpdesk attendant needs to check customer entitlement. It is the process of determining whether the customer is authorised to receive support and the level of support he/she is entitled as per the SLA. Organisations may have processes wherein the entitlement is verified by asking customer additional details like product key, customer id, contract number or personal identification number (PIN).

Helpdesk policies and procedures may also define criteria for determining what an incident is. This process helps in identifying valid incidents. The following figure shows the criteria to determine an incident:

Identifying a valid incident	➜	Differentiating the severity and priority of each incident	➜	Classifying the incidents into different categories
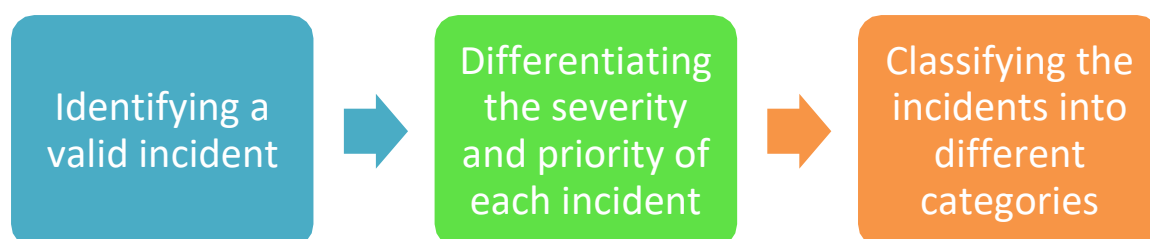
Fig. 2.16 Various Purposes for Defining Criteria

The predetermined criteria for identifying, categorising and prioritising incidents facilitate the effective resolution of incident and speedy escalation whenever required.

2.3.3.2 Procedure for Accessing and Monitoring Automated Alerts and Customer Service Requests

All incident and service tickets are not always generated by the means of a customer contacting the service desk. Technological developments allow automatic tickets and alerts to be generated based on various channels integrated into the incident management system and through monitoring and listening applications.

Customers expect service desk providers to be proactive in order to minimise the occurrences of incidents and downtime. This has led to the emergence of automated incident logging and tracking systems. Helpdesks may also use monitoring and alert tools like monitoring boards displaying system and service status, messaging systems and real-time alerting systems. Monitoring and alert systems constantly check system logs and performance. If pre- programmed criteria are met, the alert system sends out notification to administrators and others. Alerts may be in the form of e-mail messages, Web site alerts, phone alerts, etc

The term automated alerts can refer to the following two types:

1. Automated alerts that are generated by monitoring applications leading to automatic incident creation. This also includes alerts that are generated due to events like security breach, performance breach and service degradation.

2. Automated alerts sent to various stakeholders as part of incident resolution. Such automated alerts can be of any of the following:

   2.1. Automated alerts sent to helpdesk analysts, technical staff and groups depending on the nature and severity of incidents.

   2.2. Automated alerts to end users in response to specific events.

   2.3. Automated alerts in response to workflow events like assignment and acknowledgement of new tickets, notification of ticket updates, escalation notifications and closure notifications.

   2.4. Automated alerts based on events like SLA breach for escalation and analysis.

The following figure shows different types of alerts generated as part of the incident resolution process:

Incident management systems may also have the feature of generating automated alerts to remind helpdesk attendants to periodically contact customers with status updates. If helpdesk offerings involve monitoring the client system and environment, the helpdesk attendant will be provided access to relevant applications that allow monitoring of systems and applications.

Helpdesk procedures may specify the process as to how to access client systems through these monitoring tools. Since client systems need to be secured and could run mission critical business processes, it is necessary that proper care is taken while accessing and monitoring them. The monitoring tools may provide for automated alerts when specific events that affect or could potentially affect normal operations. In such cases, automated alerts should be verified as per relevant processes in place and incidents should be logged accordingly. Similarly, any customer service requests should be properly verified as per procedures and should be logged into the incident management application.

Fig. 2.17 Different Types of Alerts

2.3.3.3 Procedure for Validating Automated Alerts

Automated alerts should be verified with regard to their genuineness and potential to impact the IT service supported as per the procedures set by an organisation in this regard. The procedure for validating automated alerts will be specified in helpdesk policies and procedures applicable for customers.

Exercise

What are various methods of delivering helpdesk support?

_____
_____
_____
_____
_____
_____
_____
_____
_____

Unit 2.4: Recording and Acknowledging Service Requests and Incidents

Unit Objectives

At the end of this unit, you will be able to:

1. Understand various helpdesk processes
2. Understand the activities in the incident management process
3. Understand the concept of incident categorisation
4. Learn the recording of an incident or service request
5. Understand the tools used in helpdesk function

2.4.1 Helpdesk Processes

Important processes that form the part of helpdesk operations are shown in the following table:

Function	Description
IncidentManagement	Process responsible for managing the lifecycle of incidents
ProblemManagement	Process responsible for managing the lifecycle of problems
KnowledgeManagement	Process responsible for gathering, storing and sharing knowledge
ChangeManagement	Process responsible for controlling changes to production environments
Service Asset andConfigurationManagement	Process responsible for collecting and maintaining information about IT assets

2.4.2 Incident Management

The incident management process is responsible for managing the life-cycle of incidents. The primary purpose of the incident management process is to restore normal service operations at the earliest and minimise the impact on business operations of the customer. This ensures the best possible levels of availability and service quality.

An efficiently carried out incident management process ensures the minimisation of impact to business operations and lowers downtime for users. It is necessary for helpdesk attendants to perform incident resolution as per the process defined for their role in order to provide consistent

and quality service.

The following figure shows various activities involved in the incident management process:
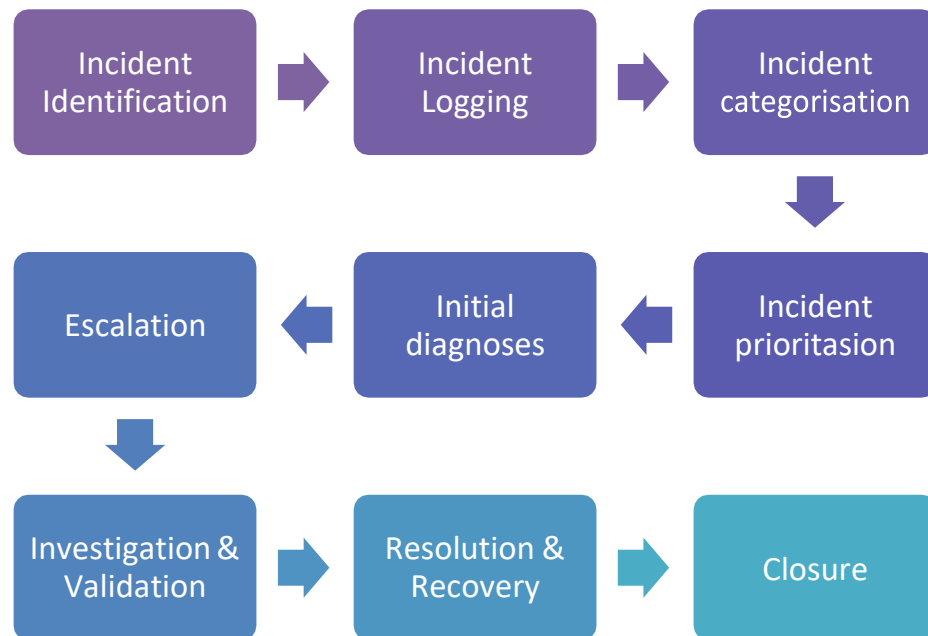
Fig. 2.18

2.4.3 Request Fulfillment

Similar to the incident management process, service requests are handled through a separate process called the request fulfilment process. Typical steps involved in the request fulfilment process are shown in the following figure:

Request Entry	Approval	Fulfillment	Request Closure	Management Review
Receiving service requests and logging the information	Checking for appropriate approval	Performing the actual steps required to fulfill the request	Closure of the request after verifying that a customer is satisfied	Evaluating the efficiency and effectiveness of the request fulfillment process

Fig. 2.19 Request Fulfilment Process

2.4.4 Lifecycle of an Incident

Various steps in the incident management process are listed as follows:

1. Customer recognises an incident and contacts service desk (or incident recognised through other means).

2. A helpdesk attendant logs the incident (or automatic creation of incident).

3. The attendant categorises the incident.

4. If it is a service request, the request fulfilment process is initiated.

5. The incident is prioritised.

6. If the incident is a major one, an appropriate senior personnel is notified.

7. The incident is diagnosed.

8. Knowledge base is verified for reuse.

9. Incident is analysed and resolution and recovery is achieved.

   9.1. If the incident is resolved at Level 1, the owner verifies the resolution and incident record isclosed with customer confirmation.

   9.2. If the incident is not resolved at Level 1, the customer is informed with incident number and isassigned to Level 2 analyst.

   9.3. Level 2 analyst diagnoses the incident. If resolved, the solution is implemented and thecustomer is notified for the closure of record.

   9.4. If the incident is not resolvable at Level 2, it is assigned to Level 3 specialist. Level 3 researchanalyst or subject matter expert investigates the problem until a resolution is achieved. If the resolution is not feasible, appropriate action as per SLA/policies is taken

10. Once the resolution is achieved and implemented, the customer is notified.

11. After the customer confirmation, the incident record is closed.

The figure below shows a sample incident management process flow:
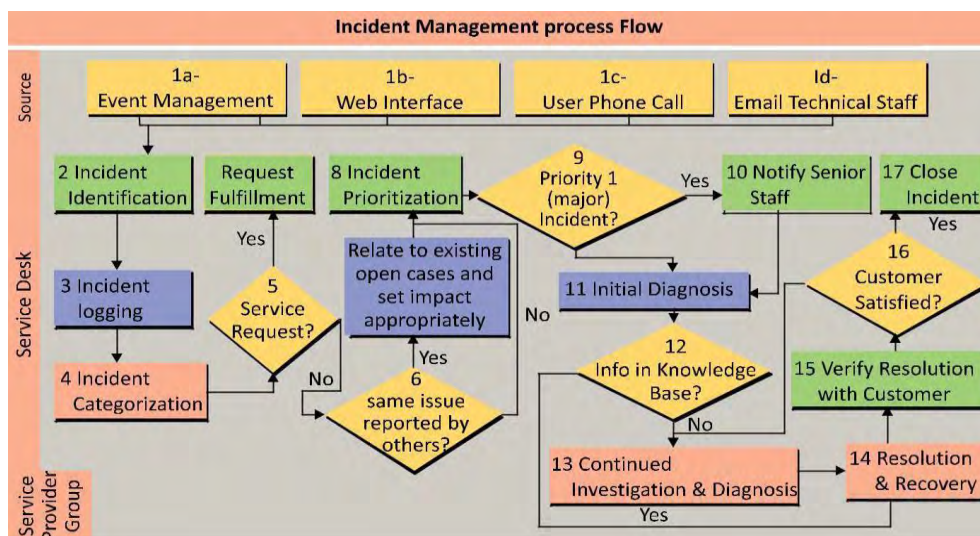
Fig. 2.20

2.4.5 Incident Categorization

Incidents are classified into separate category types. This allows helpdesk to record incident tickets in more detail so that aggregation of small tickets is possible for reporting. Incident categorisation should be such that:

- It can be correlated with other similar incidents so that known errors can be easily resolved and proper workarounds can be easily identified.

- It can be assigned to any specific helpdesk support group. It can facilitate easy incident management.

Incidents may also be classified into many sub-categories to exactly isolate the nature of incident. The incident category field in the incident management application may comprise a series of drop-down menus that allow a helpdesk attendant to exactly classify the incident.

Incidents are also prioritised based on the degree of urgency and impact. Impact is the degree to which the user/business is affected. Urgency is the degree to which resolution can be delayed. The impact and urgency are ideally based on predefined parameters and are not entirely decided by the person reporting the incident and they are not assigned based on customer request. The criteria is based on the criticality of the service and business operations affected.

The following figure shows a sample matrix grid on how incidents can be prioritised and priority level be assigned to incidents.

An incident with high impact and high urgency will be classified as 'Priority Level 1' as against 'Priority Level 5' which has lowest urgency and impact:

	Urgency			
I		High	Medium	Low
M	High	1	2	3
P	Medium	2	3	4
A	Low	3	4	5
C				
T				

Priority	Definition	Example
1	System down, business critically impacted	A real-time business application is down affecting business processes
2	Level of service degraded, high potential to affect business, workaround possible	Network service degraded.
3	Not critical, customer can wait and workaround possible	Printer down but alternate options available
4	Not critical and no operational	Intermittent errors that customer can

impact	work
	around.

2.4.6 Recording Incidents/Service

After the incident is recognised and customer entitlement is verified, a helpdesk attendant should log the incident by isolating the source of incident and classifying the same. He should also determine the incident's impact and record its priority. An appropriate classification or categorisation of incidents is important as they are extensively used in the incident management process all through the lifecycle. The category of incident has a bearing on workflow, escalation criteria, priorities, diagnostic scripts used, performing of root cause analysis, trend analysis and reporting and performance metrics.

The capture of incident may occur by manual entry by a helpdesk attendant or it may be through the automated incident recognition process. Once an incident is captured, a ticket is created with relevant Id and other details in the incident management system. Depending on the nature of the ticket, it might be fulfilled by 'incident management processes' or 'request fulfilment processes'. The ticket ID is used to track the incident all through its lifecycle.

2.4.6.1 Using Organizational Tools, Technologies and Processes

In order to keep their service quality improving, customer-centric organisations should ensure that their helpdesk has all the means to properly monitor and manage the ongoing service tasks on each hierarchical layer from beginning till end. The following figure shows the tools, technologies and processes commonly used in such organisations for providing services to customers:

- **Telephony Tools**
  - Automated Call Distribution (ACD)
  - Automatic Speech Recognition (ASR)
  - Automatic Speech Recognition (ASR)
  - Voice over Internet Protocol (VoIP)
  - Computer Telephony Integration (CTI)

- **Service Management Systems**
  - Incident and Service Request Management Systems
  - Problem Management Systems
  - Change Management applications
  - Asset Management Applications
  - Workflow Management Systems
  - Reporting Systems
  - Knowledge Management Systems

- **Collaboration Tools**
  - Knowledge-Sharing Tools
  - Instant Messaging (IM)
  - Wikis
  - Screen Sharing
  - Digital Whiteboards
  - Social Media Messaging

- **Remote Support Tools**
  - Remote Control
  - Remote Collaboration
  - Remote Administration

- **Monitoring and Alerting Tools**
- **Self-Service Technologies**
- **Automated Remediation Technologies**
- **Cloud Service Technologies**

Examples of usage of the automated remediation technology are shown in the following figure:

Repair application issues.

Diagnose and resolve common incidents.

Automatically install updates and patches.

Scan and monitor for viruses.
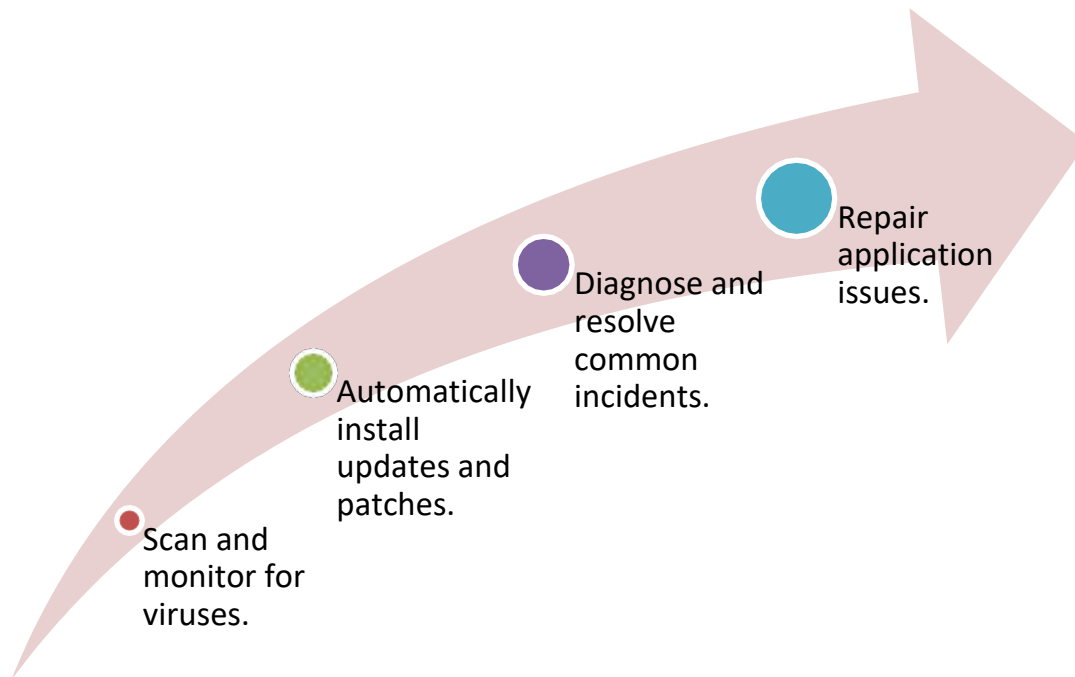
Fig. 2.21 Tools and Technologies Used in Customer-Centric Organisations

Incident management systems may also be integrated with email applications and Web-based forms and templates so that email messages or data through Web-based templates and forms can result in automatic logging of calls. The incident management system can then send a return email message to the customer once the incident gets resolved.

Incident management systems also use templates that are basically predefined items, which can be used to quickly create a standard ticket, document or e-mail message. Such templates, for example, allow standard opening and closing of e-mails being sent to customers. Templates save helpdesk attendants time due to reusability of the standard text.

2.4.6.2 Recording Information Accurately

While recording incidents or service requests, a helpdesk attendant should take care that all the required information for resolving the incident and reporting is accurately captured. Besides, he/she should exhibit professionalism, have clarity of thoughts, and minimise possible misunderstandings and distractions. He/she should avoid using acronyms, emoticons, slangs or regional phrases and documenting negative references about customers. He/she should record only facts without any personal bias.

Some important data that should be accurately captured is listed in the table below:

1	Customer identification in terms of name, department, company, etc.
2	Customer contact information
3	Customer description of the incident
4	Date and time of occurrence of the incident and its reporting
5	Environment of the incident
6	Incident category
7	Business impact and urgency of the issue
8	Priority of the incident or service request
9	Configuration items involved in the incident
10	Additional information pertaining to the attempted resolutions
11	Details of interaction with the customer relating to the incident recorded
12	Steps taken during contact with the customer
13	Steps required to be taken later for resolution of the request or incident
14	Next contact date
15	Commitments made to the customer

The incidents and service requests will also be logged with the following classifications: The product or service the incident/service request pertains to

- Relevant SLA

- Definition of priority and business impact

- Work estimate detail

- Any additional information required Matching against known errors and problems Suggested an action plan

Incident management systems may also allow the use of ticket templates. These templates may be used to populate the fields on a ticket with the values from pre-defined templates to save time and keep efficiency.

Organisations may require helpdesk attendants to log each and every call from customers. This has the following benefits:

- Creates an audit trail of customer interactions

- Provides volume and trending information for better staffing and scheduling Provides call frequency information

- Provides data that can be used for root cause analysis Provides reusable content for knowledge base

- Allows the support centre to create an information checklist or FAQs

2.4.6.3 Using IT Applications to Store Data

Incidents and service requests logging and management are generally carried out through IT applications like incident management systems. Apart from logging the calls, they allow tracking the incidents all through their lifecycle from creation to closure and finally reporting the incident data. The customers are generally allowed to approach by way of several channels like telephone, email, fax, Web, etc. Organisations consolidate the incident data by integrating the information received through these various channels. The incident management system may allow automatic logging of incidents or may require a helpdesk attendant to log and confirm the incident.

Incident management systems may also allow helpdesk analysts to access a service asset and the configuration items or knowledge management systems. This helps the analysts obtain information about the products and systems related to the incident and access the knowledge base applicable to the incident. In addition, incident management systems are integrated with other systems to manage SLAs such as target response and resolution times.

Incident management systems also allow storing the knowledge about handling of past incidents. Some incidents may be amenable for applying workarounds and previously established reusable solutions. Such a reuse can greatly reduce time required to solve the incidents and can also improve the quality of resolutions. The reusable solutions are normally stored as part of the incident and knowledge management system. Normally, a single repository will contain all previously established reusable solutions. This repository can be used to quickly determine the appropriate reusable solution to be used for typical incidents.

Exercises

1. **List various helpdesk processes.**

_____

_____

_____

_____

_____

_____

_____

2. List various phases of the incident management process.

_____

_____

_____

_____

_____

3. Explain how incidents are categorised.

4. List various important data that should be captured when logging incidents.

Unit 2.5: Communicating with Customers to Obtain Accurate Information

Unit Objectives

At the end of this unit, you will be able to:

1. Learn about attending customer calls
2. Learn about communicating with customers and managing them effectively
3. Learn about active listening skills

2.5.1 Communication with Customers

It is necessary for a helpdesk attendant to have excellent communication and customer management skills in order to efficiently interact with customers, obtain accurate information and resolve issues.

The following list below shows tips for a helpdesk attendant to establish an effective relationship with a customer:

- Actively build good rapport with the customer.
- Be empathetic to the customer's problem.
- Manage the customer's expectations.
- Provide a consistent service.
- Have a clear understanding about how the systems affect customer business.
- Maintain a service attitude.
- Keep in mind the customer's psychological needs before addressing business needs.
- Take ownership of the incident or service request.

The following figure shows the benefits of a proper customer management:

- Optimised talk time
- Speedy incident resolution
- Improved productivity
- Enhanced image of the helpdesk
- Increased level of customer satisfaction
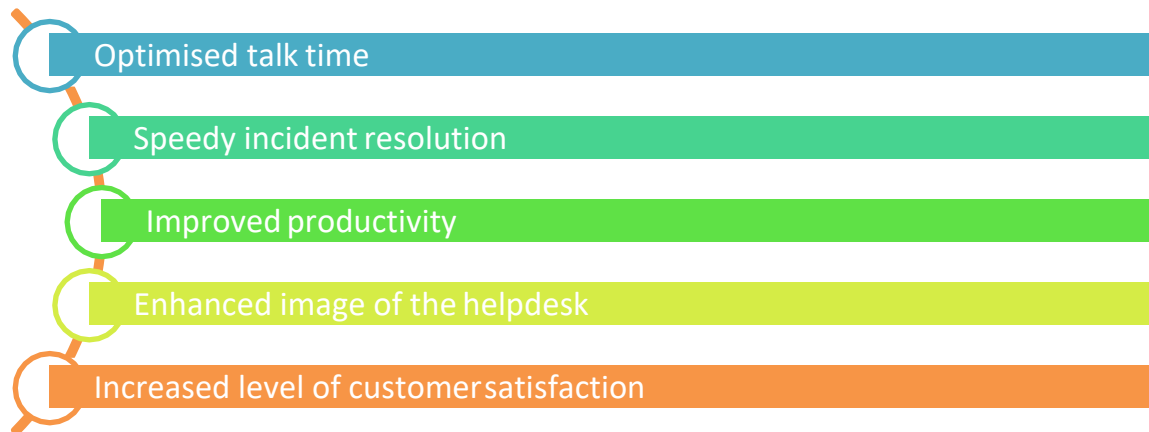
Fig. 2.22 Benefits of Proper Customer Management -Centric Organisations

As stated earlier in the section, helpdesk attendants should exhibit excellent communication skills while dealing with their customers. The following figure shows the steps to handling customer calls:

Get prepared for the call	• Be ready to take the call, avoid other works that could disrupt the call-logging process, have ready access to required tools and applications
Greet the customer once the call is received	• Provide a salutation, identify your organisation, identify yourself, verify the customer's name and entitlement by asking closed-ended questions, assist the customer, ask open-ended and probing questions to begin the problem-solving process
Resolve the incident	• Resolve the problems or escalate when required
Close the call	• Summarise the call, ask the customer if there is anything else you can do, thank the customer, allow the customer to hang up first, ensure the information is properly recorded into the system

Fig. 2.23 Handling Customer Calls -Centric Organisations

While communicating with the customer, a helpdesk attendant should keep the following in mind:

- Build a rapport with the customer by giving proper attention to his/her problem. You may use the customer's name during the call towards setting an affable tone for the call and contributing to a positive first impression.

- Differentiate between formal and informal communication. Use the customer's title and family name, business terminology and language when in the mode of formal communication. Do not use the customer's first name or mere titles during informal communication.

- Use empathetic statements in order to keep the customer's attention focused. Ask closed-ended questions to direct the conversation.

- Paraphrase to ensure understanding.

- Do not ask the customer to repeat the information that has already been documented. Do not have a separate conversation while answering a call.

- Do not express negative opinions about people or departments. Avoid extended hold times and multiple transfers.

- Do not get drawn into arguments with frustrated customers.

While putting the customer on hold, ask his/her permission by providing a valid reason. Do not keep the customer waiting for an unreasonable time. Thank the customer for holding when you return to the call. If transferring the call, let the customer know the reason for the transfer and get his/her nod. Place the customer on hold while calling the receiving party. Explain the circumstances of the call and transfer all the relevant details to the party so that the customer does not have to repeat himself/herself. Verify that the receiving party is able to assist. Connect the customer to the party in a 3-way call and introduce him/ her.

Unit 2.6 Identifying Solutions,Escalating and Resolving Incidents

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Know the incident resolution process
2. Know the Escalation issues & types of Escalation issues
3. Know the Rule based decision making process

2.6.1 Incident Resolution

Incident management process provides the resolution of incidents and ensure the prevention of the same in future. Following are the objectives of incident resolution activities:

- Removing the underlying causes
- Minimising the impact of the incident
- Monitoring the series of events causing the incident
- Providing a workaround

The purpose of Incident Resolution process is to ensure timely and effective resolution of service incidents and prevention of service incidents as appropriate.

An incident management process involves the activities shown in the following figure:
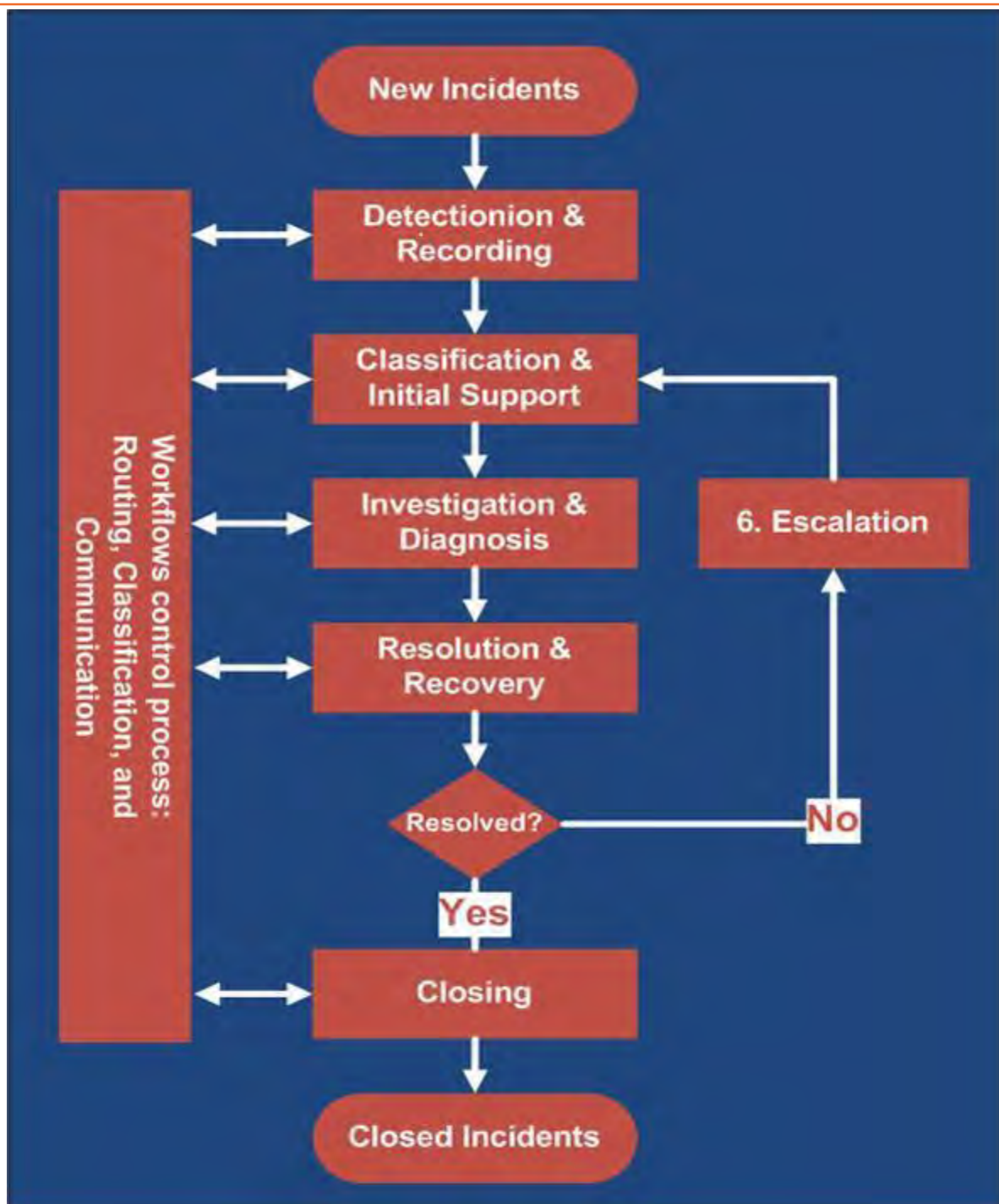
Fig. 2.24

In the incident management process, the helpdesk attendants should be completely aware of all their roles & responsibilities as they are documented under the helpdesk policies and procedures of the organisation. The attendants are supposed to work in such a way that they fulfil the requests and also identify where services can better meet the business needs.

2.6.2 Escalating Issues

Escalation refers to raising an incident from one level to another to get a solution for the issue. The priority of the incident defines whether it is to be escalated or not. The helpdesk attendants should be well versed with the procedure of referring service requests and incidents to a more expert team when they are not resolvable at their end. There are two types of Escalations

1. **Functional Escalation:** Functional escalation is used in case that the support team
is unable to resolve the issue or stick within the agreed timeline (targeted time for resolution is exceeded).If should an escalation management of the organization be effective, the priorities need to be set properly as well as the escalation process needs to be shared with all stakeholders. Priority is a result of a combination of importance and urgency.

2. **Hierarchical Escalation:** Hierarchical escalation is used to ensure attention for notification or to take any necessary action. 1st level support is unable to resolve the issue so it is escalated to 2nd level support. In case they are also not able to solve he issue they are escalating it to 3rd level support and so on until the issue is resolved.

Escalation of incidents can be based upon the target escalation time. A time constraint is placed on each level, which ensures that incident resolution activities are proceeding at an appropriate pace. It is not necessarily true that an escalation is always because the helpdesk does not have the knowledge or ability to resolve an issue.

2.6.3 Obtaining help from Appropriate people

The helpdesk attendants sometimes need to take the help from superiors or from the people at higher positions. For this purpose the attendants have to follow the appropriate process & etiquettes. An incident is escalated by the attendants if only it is fit for escalation.

The following are the few reasons for escalation:
- The helpdesk attendant has exhausted all resources in trying to resolve the issue including skills,
- expertise and available resources, and is convinced that additional expertise is required.
- Impact of the incident on the customer's business is high.
- No existing workaround is available.
- The incident is approaching a breach of service-level commitment or exceeds that commitment.

2.6.4 Communicating & Recording Resolution of Service Requests / Incidents

The Service Desk and Incident Management process aims to restore IT Services to their defined Service Levels as quickly as possible The process is also responsible for receiving and processing Service Requests, for assisting users, and for coordinating the Incident Resolution with Specialist Support Groups. Throughout the process, users are informed at regular intervals about their Incidents' status. The Incident shall be recorded and documented in appropriate quality, in order to facilitate a swift and effective solution. Before the final closure of the Incident, it is to be submitted to a quality-control with regards to the resolution. In addition to this, findings from the resolution of the Incident are to be recorded for the future. Findings from the processing of Incidents as well as information from other Service Management Processes are to be incorporated into the Support Knowledge Base in a structured and quality-assured manner, so that future Incidents can be more efficiently processed. It is to be ensured that (a) improvement potentials are derived from past Incidents, and (b) the other Service Management Processes have the information necessary from Incident Management that are required to fulfill their tasks.

2.6.5 Filling SLAs

SLA's is very imp for any organization to have it signed and also linked to the incident management application. If it is rightly defined and linked, data from agreement will automatically populate whenever any service requests or incidents are created in incident management application. The SLA field can be auto-filled with default SLA values if the organisational unit of the customer does not subscribe to the service offering. In case the SLA data is not linked to the application, the helpdesk team has to ensure that the SLA data parameters are properly captured with the incident or service record.

3. Manage Your Work to Meet Requirement

Unit 3.1 - Time Management

Unit 3.2 - Work Management and Prioritization

Unit 3.3 - Quality and Standard Adherence

SSC/N9001

The Key Learning Outcomes 💡

At the end of this module, you will be able to:

1. Establish and agree your work requirements with appropriate people
2. Keep your immediate work area clean and tidy
3. Utilize your time effectively
4. Use resources correctly and efficiently
5. Treat confidential information correctly
6. Work in line with your organization's policies and procedures
7. Work within the limits of your job role
8. Obtain guidance from appropriate people, where necessary
9. Ensure your work meets the agreed requirements

Unit 3.1 Time Management

Unit Objectives

At the end of this unit, you will be able to:

1. Discuss the significance of time management
2. Create awareness on basic time management techniques
3. Summarize the appropriate discussion points from the breakout sessions

3.1.1. Importance of Time Management

The first part of this session discusses the following:

- "Plan better avoid wastage"

- Understanding the timelines of the deliverables. Receiving the hand off from upstream teams at right time is critical to start self contribution and ensure passing the deliverables to downstream team.

- It is important to value others' time as well to ensure overall organizational timelines are met

- Share the perspective of how important is time specifically in a global time zone mapping scenario

Fig 3.1.1.

3.1.2. Why Time Management?

Discuss your responses with the larger group to explain the significance of time management.

Discuss the Shared Services Outsourcing model and how working along several time zones is important for the Shared Services Center.

Prompt participants to come up with some aspects and relate them back to here.

- Planning and goal setting
- Managing yourself
- Dealing with other people
- Your time
- Getting results

The first 4 Interconnect and Interact to give the 5th one – Results

Differentiate between Urgent and Important task

Urgent task

- Assume importance as they demand immediate attention

Important Task

- May become urgent if left undone
- Usually have a long term effect

To judge importance vs. urgency, gauge tasks in terms of

- Impact of doing them
- Effect of not doing them

Main aim of prioritization is to avoid a crisis

We must Schedule our Priorities

as opposed to

Prioritizing our Schedule

Time Management quadrants

1. Urgent and Important – Do Now

2. Not Urgent and Important – Schedule on your calendar

3. Urgent and Not Important – Delegate, Automate or Decline

4. Not Urgent Not Important – Delegate, Automate or Decline

	Urgent	**Not Urgent**
Important	These activities usually get done • Crises • Pressing problems • Deadline – driven projects	These activities are high impact. Make them a priority • Preparation Activities • Relationship Building • Recognizing new activities • Planning, Recretation
Not Important	These activities are deceptive – don't confuse urgent and important. Minimize these • Interruptions • Adhocs • Proximate, pressing matter • Popular activities	Wastages • Trivia • Time asters • Pleasant activities
	Urgent	**Not Urgent**

Fig: 3.1.2. Why Time Management?

3.1.3: Check Your Understanding

1. True or False? Time can be stored.

a. True

b. False

2. True or False? Time is perishable

a. True

b. False

3. True or False? Time management is required both at individual level and organizational level.

a. True

b. False

4. True or False? Activities should be judged basis Urgency and Importance

c. True

d. False

Team Exercise

Categorize the below items in the Time Management Quadrant

1. Wildly important goal
2. Last minute assignments from boss
3. Busy work
4. Personal health
5. Pressing problems
6. Crises
7. Planning
8. Time wasters
9. Professional development
10. Win-win performance agreement
11. Too many objectives
12. Vital customer call
13. Major Deadlines
14. Unimportant pre scheduled meetings
15. Meaningless management reports
16. Coaching and mentoring team
17. Low priority email
18. Other people's minor issues
19. Workplace gossip
20. Exercise
21. Needless interruptions
22. Defining contribution
23. Aimless Internet surfing
24. Irrelevant phone calls

3.1.4 Summary

- It is important to manage time.
- To manage time one must:
  - Prioritize
  - Define Urgency
  - Define Importance

Unit 3.2: Work Management and Prioritizing

Unit Objectives

At the end of this unit, you will be able to:

1. Discuss importance prioritization and planning
2. Operationalize the plan
3. Create awareness on how to monitor performance

3.2.1 Work Management

Six steps for expectation setting with the stakeholders

1. Describe the jobs in terms of major outcomes and link to the organization's need

   The first step in expectation setting is to describe the job to the employees. Employees need to feel there is a greater values to what they do. We need to feel out individual performance has an impact on the organization's mission.

   Answer this question: My work is key to ensuring the organization's success because…

   While completing the answer link it to

   - Job Description

   - Team and Organization's need

   - Performance Criteria

2. Share expectations in terms of work style

   While setting expectation, it's not only important to talk about the "what we do" but also on "how we expect to do it". What are the ground rules for communication at the organization?

   Sample ground rules

   - Always let your tam know where are the problems. Even if you have a solution, no one likes surprises.

   - Share concerns openly and look for solutions

   - If you see your colleagues doing something well, tell them. If you see them doing something poorly, tell them.

   Sample work style questions

   - Do you like to think about issues by discussing them in a meeting or having quite time alone?

   - How do you prefer to plan your day?

3. Maximize Performance - Identify what is required to complete the work: Supervisor needs / Employee needs. Set input as well as output expectations

In order to ensure employees are performing at their best, the supervisor needs to provide not only the resource (time, infrastructure, desk, recognition etc.) but also the right levels of direction (telling how to do the task) and support (engaging with employees about the task).

4. Establish priorities. Establish thresh holds and crisis plan

Use the time quadrant to establish priorities. Refer to earlier session.

5. Revalidate understanding. Create documentation and communication plan to establish all discussion

When you are having a conversation about expectations with stakeholders, you're covering lot of details so you'll need to review to make sure you both have a common understanding of the commitments you have made.

6. Establish progress check

No matter how careful you have been in setting expectations, you'll want to follow up since there will be questions as work progresses.

Schedule an early progress check to get things started the right way, and agreed on scheduled/unscheduled further checks. Acknowledge good performance and point your ways to improve

3.2.2: Check Your Understanding

1. True or False? Setting expectations is best done after the employee has worked for 6 months.

a. True

b. False

2. True or False? Do not provide too many details when setting expectations.

a. True

b. False

3. True or False? Always check to make sure there is a common understanding of expectations.

a. True

b. False

4. True or False? Try not to ask too many questions while setting expectations.

a. True

b. False

5. True or False? Employees need to know what tasks to do and how to communicate, appreciating work styles.

a. True

b. False

6. True or False? Employees do not need to know how their work contributes to organizational results.

a. True

b. False

7. True or False? Employees need to know what their team members performance problems are.

a. True

b. False

8. True or False? Employees how have work style different from the Boss/Peers need to change.

a. True

b. False

3.2.3: Summary

- Define work and activities:
  - What
  - How
- Define Stakeholders and participants:
  - Whom to serve
  - Who all are serving
- Plan, Execute and Monitor

Unit 3.3: Quality and Standards Adherence

Unit Objectives

At the end of this unit, you will be able to:

1. Discuss importance of expectation setting
2. Develop understanding on defining activities to be performed, deliverables and yardsticks of measuring output
3. Create awareness on the common Service Level Agreements

3.3.1 Goals and Objectives

S

Specific
Work activities should be specific. Why and How to be defined

M

Measurable
The output metrics and yardsticks should be defined.

A

Achievable
Should be assigned to those responsible for achieving it.

R

Realistic
Should be challenging yet attainable. Have a motivational

T

Time bound
Time period for achievement is clearly stated
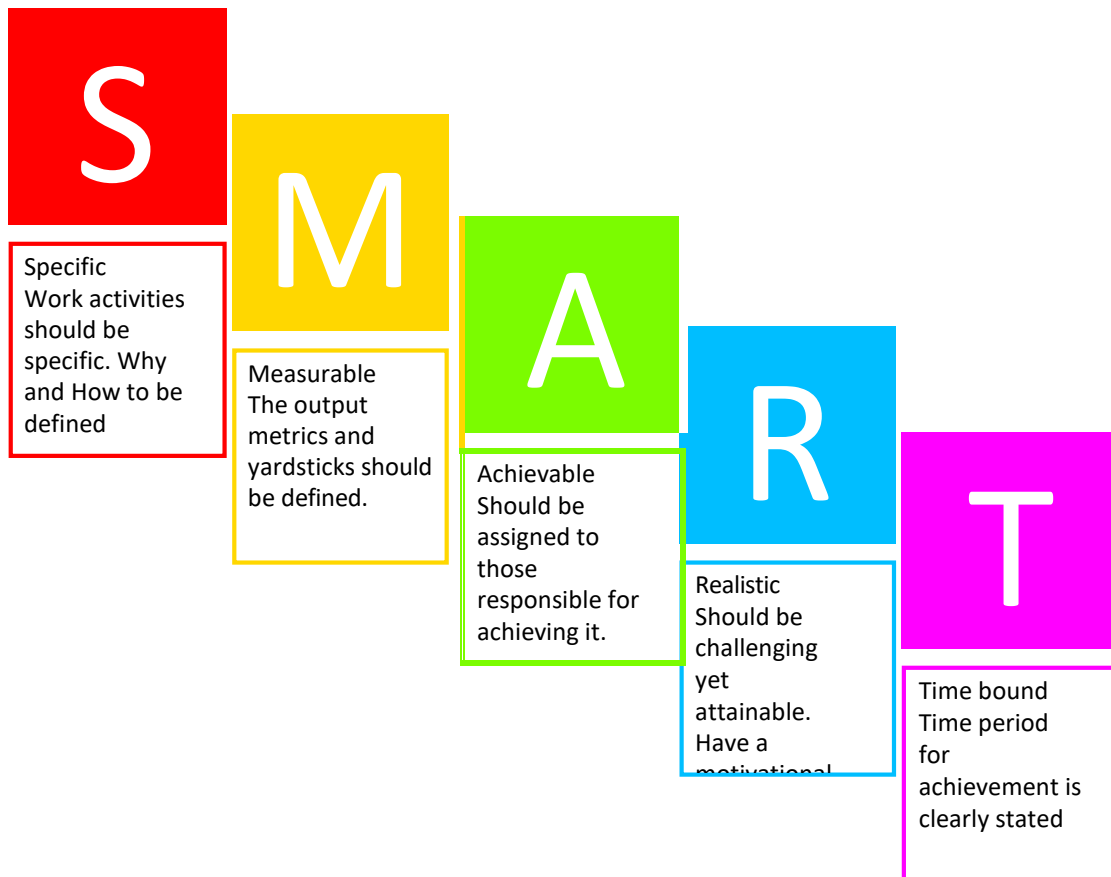
Fig: 3.3.1: Goals and Objectives compliant to SMART

3.3.2 Effectiveness Vs. Efficiency

		In efficient	**Efficient**
Pursuit of Appropriate Goals / Doing the Right	**Effective**	Pursuing right goals but in efficient	Pursuing right goals and efficient
	In Effective	Pursuing wrong goals and inefficient.	Pursuing Wrong goals but is Efficient
		In efficient	**Efficient**

Use of Resources / Doing Things Right

Fig: 3.3.2: Effectiveness Vs. Efficiency

3.3.3 Summary

Service Level Agreement (SLA) is a contract between a service provider and its internal or external customers that documents what services the provider will furnish

SLA measures the service provider's performance and quality in a number of ways.

Some sample metrics SLAs may specify or include

- Availability and uptime – the percentage of the time services will be available

- The no of users being served, the bandwidth or volume being addressed or the quantum f work being performed in work units

- Specify performance benchmarks to which actual performance will be periodically compared

- Turnaround time

In addition to establishing performance metrics, an SLA may include a plan for addressing downtime and documentation for how the service provider will compensate customers in the event of a contract breach. SLAs, once established, should be periodically reviewed and updated to reflect changes in technology and the impact of any new regulatory directive

3.3.4 Service Level Agreements

- Every activity must have defined goals and objectives. These goals and objectives should be SMART complaint (Specific, Measurable, Achievable, Realistic and Time-bound).

- One must balance the efficiency and effectiveness while performing the tasks to achieve the desired objectives.

- The Service Level Agreements should be clearly laid out to measure the quality and performance.

4. Maintain a Healthy, Safe and Secure Working Environment

Unit 4.1 - Workplace Safety

Unit 4.2 - Report Accidents and Emergencies

Unit 4.3 - Protect Health and Safety at Work

SSC/N9004

Key Learning Outcomes

At the end of the Introduction, the trainer will be able to:

PC1. Comply with your organization's current health, safety and security policies and procedures

PC2. Report any identified breaches in health, safety, and security policies and procedures to the designated person

PC3. Identify and correct any hazards that you can deal with safely, competently and within the limits of your authority

PC4. Report any hazards that you are not competent to deal with to the relevant person in line with organizational procedures and warn other people who may be affected

PC5. Follow your organization's emergency procedures promptly, calmly, and efficiently

PC6. Identify and recommend opportunities for improving health, safety, and security to the designated person

PC7. Complete any health and safety records legibly and accurately

Unit 4.1: Workplace Safety

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Discuss the significance of work place safety
2. Create awareness on basic safety guidelines

4.1.1 Prevention of disasters/risk events

What are some of the basic safety rules that you follow at your workplace.

- **Fire Safety**

Employees should be aware of all emergency exits, including fire escape routes, of the office building and also the locations of fire extinguishers and alarms.

- **Falls and Slips**

To avoid falls and slips, all things must be arranged properly. Any spilt liquid, food or other items such as paints must be immediately cleaned to avoid any accidents. Make sure there is proper lighting and all damaged equipment, stairways and light fixtures are repaired immediately.

- **First Aid**

Employees should know about the location of first-aid kits in the office. First-aid kits should be kept in places that can be reached quickly. These kits should contain all the important items for first aid, for example, all the things required to deal with common problems such as cuts, burns, headaches, muscle cramps, etc.

- **Security**

Employees should make sure that they keep their personal things in a safe place.

- **Electrical Safety**

Employees must be provided basic knowledge of using electrical equipment and common problems. Employees must also be provided instructions about electrical safety such as keeping water and food items away from electrical equipment. Electrical staff and engineers should carry out routine inspections of all wiring to make sure there are no damaged or broken wires.

4.1.2 Check your understanding 📝

1. True or False? The employer and employees are responsible for workplace safety.

a. True

b. False

2. True or False? Any injury at work should be reported to the supervisor immediately.

a. True

b. False

3. True or False? No matter how big or small the injury; the injured person should receive medical attention.

a. True

b. False

4. True or False? While working with machines and equipment, employees must follow the safety guidelines set by the company.

c. True

d. False

5. True or False? At any office, the first-aid kit should always be available for use in an emergency.

a. True

b. False

6. True or False? It is optional to participate in the random fire drills conducted by the Offices from time-to-time.

a. True

b. False

7. True or False? The "Wet Floor" sign is not needed and causes problems for people. Wet floor can be identified easily, without the signs.

a. True

b. False

8. True or False? It is okay to place heavy and light items on the same shelf.

a. True

b. False

9. True or False? There is no need to train employees on how to use the fire extinguisher. They can operate extinguishers following the instruction written on the extinguisher case, when needed.

a. True

b. False

10. True or False? The cleaning supplies, especially chemical products, can be left in the bathrooms or in any of the cupboards in the office.

a. True

b. False

4.1.3: Summary

- It is important to follow safety rules to prevent accidents and protect workers.

- Employees must follow safety guidelines for the following:

  - Fire safety

  - Falls and slips

  - Electrical safety

  - Use of first aid

4.1.4: Case Studies of hazardous

Case 1: On Friday, June 13, 1997 a fire broke out at Uphaar Cinema, Green Park, Delhi, while the film Border was being shown. The fire happened because of a blast in a transformer in an underground parking lot in the five-organization building which housed the cinema hall and several offices.59 people died and 103 were seriously hurt when people rushed to move out of the exit doors. Many people were trapped on the balcony and died because the exit doors were locked.

Case 2: 43 people died when fire broke out on the fifth and sixth floors of the Stephen Court building in Kolkata.

Case 3: 9 people were killed and 68 hurt when a fire accident took place in a commercial complex in Bangalore.

Case 4: In Kolkata, more than 90 people were killed when a fire broke out at the Advanced Medicare and Research Institute (AMRI) Hospitals at Dhakuria.

Unit 4.2: Prevent Accidents and Emergencies

Unit Objectives

At the end of this unit, you will be able to:

1. Define the terms accident and emergency
2. Explain how to find identify and report accidents and emergencies
3. Explain how to address security threats and risks
4. Describe how to handle accidents
5. Describe types of emergencies
6. Explain how to handle general emergencies

4.2.1 Accidents and emergencies

An accident is an unplanned, uncontrolled, or unforeseen event resulting in injury or harm to people and damages to goods. For example, a person falling down and getting injured or a glassware item that broke upon being knocked over. Emergency is a serious or crisis situation that needs immediate attention and action. For example, a customer having a heart attack or sudden outbreak of fire in your organization needs immediate attention.

Each organization or chain of organizations has procedures and practices to handle and report accidents and take care of emergencies. Although you will find most of these procedures and practices common across the industry, some procedures might be modified to fit a particular type of business within the industry. For example, procedure to handle accidents caused by slipping or falling will be similar across the industry. You need to be aware of the general procedures and practices as well as the ones specific to your organization.

The following are some of the guidelines for identifying and reporting an accident or emergency:

Notice and correctly identify accidents and emergencies: You need to be aware of what constitutes an emergency and what constitutes an accident in an organization. The organization's policies and guidelines will be the best guide in this matter. You should be able to accurately identify such incidents in your organization. You should also be aware of the procedures to tackle each form of accident and emergency.

Get help promptly and in the most suitable way: Follow the procedure for handling a particular type of accident and emergency. Promptly act as per the guidelines. Ensure that you provide the required help and support as laid down in the policies. Do not act outside the guidelines and policies laid down for your role even if your actions are motivated by the best intention. Remember that only properly trained and certified professionals may be authorized to take decisions beyond the organization's policies and guidelines, if the situation requires.

Follow company policies and procedures for preventing further injury while waiting for help to arrive: If someone is injured, do not act as per your impulse or gut feeling. Go as per the procedures laid down by your organization's policy for tackling injuries. You need to stay calm and follow the prescribed procedures. If you panic or act outside the prescribed guidelines, you may end up further aggravating the emergency situation or putting the injured person into further danger. You may even end up injuring yourself.

Act within the limits of your responsibility and authority when accidents and emergencies arise: Provide help and support within your authorized limit. Provide medical help to the injured only if you are certified to provide the necessary aid. Otherwise, wait for the professionals to arrive and give necessary help. In case of emergencies also, act within your authorized limits and let the professionals do the task allocated to them. Do not attempt to handle any emergency situation for which you do not have formal training or authority. You may end up harming yourself and the people around you.

Promptly follow instructions given by senior staff and the emergency services: Provide necessary services as described by the organization's policy for your role. Also, follow the instructions of senior staff who are trained to handle particular situations. Work under their supervision when handling accidents and emergencies.

4.2.2 Types of Accidents

The following are some of commonly occurring accidents in organizations:

Trip and fall: Customers or employees can trip on carelessly left loose material and fall down, such as tripping on loose wires, goods left on aisles, elevated threshold. This type of accident may result in simple bruises to serious fractures.

Slip and fall: People may lose foothold on the floor and stairs resulting in injuries. Slips are mainly due to wet floors. Other causes: spilling of liquids or throwing of other slip-causing material on floors, such fruit peels. Tripping and slipping is generally caused by negligence, which can be either from the side of organization employees

Fig 4.2.2

or from the side of customers. It can also be due to broken or uneven walking surface, such as broken or loose floor tile. However, you should prevent any such negligence. In addition, people should be properly cautioned against tripping and slipping. For example, a "wet floor" sign will warn people to walk carefully on freshly mopped floors. Similarly, "watch your steps" signs can prevent accidents on a staircase with a sharp bent or warn against a loose floor tile.

Injuries caused due to escalators or elevators (or lifts): Although such injuries are uncommon, they mainly happen to children, ladies, and elderly. Injuries can be caused by falling on escalators and getting hurt. People may be injured in elevators by falling down due to sudden, jerking movement of elevators or by tripping on elevators' threshold. They may also get stuck in elevators resulting in panic and trauma. Escalators and elevators should be checked regularly for proper and safe functioning by the right person or department. If you notice any sign of malfunctioning of escalators or elevators, immediately inform the right people. If organization's procedures are not being followed properly for checking and maintaining these, escalate to appropriate authorities in the organization.

Accidents due to falling of goods: Goods can fall on people from shelves or wall hangings and injure them. This typically happens if pieces of goods have been piled improperly or kept in an inappropriate manner. Always check that pieces of goods are placed properly and securely.

Accidents due to moving objects: Moving objects, such as trolleys, can also injure people in the organization. In addition, improperly kept props and lighting fixtures can result in accidents. For example, nails coming out dangerously from props can cause cuts. Loosely plugged in lighting fixtures can result in electric shocks.

Workplace Safety Rules		
#	Workplace Safety Rules	
1	Keep the floor dry all the time.		
2	Regularly check safety equipment such as fire extinguishers to make sure they are in working condition.		
3	Mark fire exit doors clearly.		
4	Know where fire extinguishers and fire alarms are kept.		
5	Conduct mock drills regularly.		
6	Find out the fire escape routes in a building.		
7	Keep first-aid kits where they can be easily found.		
8	Make sure that first-aid kits are stocked with all necessary things.		
9	Check and service all electrical equipment regularly.		
10	Repair faulty machinery immediately.		

11	Make sure there is proper lighting in all areas.		
12	Make sure that the office layout and furniture are designed and arranged so that they do not cause injury to workers.		

Vocabulary Words

Mock Drill/Fire Drill

Practice how to respond/react in case of an emergency, such as a fire

Fire Extinguisher

A small container usually filled with special chemicals for putting out a fire.

Exit

The way to go out of a building or room

First Aid Kit

A container, which has medicines and ointments

Fire Escape Route

The way out in case of a fire

Emergency

A sudden, urgent and unexpected event

Spilt Liquid

Soft drink/water/coffee/tea etc. that has fallen on the floor

Routine inspections –

Regular checking

Damaged equipment

Torn wires or broken plugs

Stairways

Staircase/ stairs to go to the next floor

Light fixtures

Bulbs, tube lights etc.

Injury

Getting hurt/bleeding

Kitchen equipment

Vessels used in the kitchen, such as wok, knives, cutting board etc.

Cleaning Supplies

Liquid soap, dish washing liquid etc.

4.2.3 Handling Accidents

Try to avoid accidents in your organization by finding out all potential hazards and eliminating them. If a colleague or customer in the organization is not following safety practices and precautions, inform your supervisor or any other authorized personnel. Always remember that one person's careless action can harm the safety of many others in the organization. In case of an injury to a colleague or a customer due to an accident in your organization, you should do the following:

Attend to the injured person immediately. Depending on the level and seriousness of the injury, see that the injured person receives first aid or medical help at the earliest. You can give medical treatment or first aid to the injured person only if you are qualified to give such treatments. Let trained authorized people give first aid or medical treatment.

Inform your supervisor about the accident giving details about the probable cause of accident and a description of the injury.

Assist your supervisor in investigating and finding out the actual cause of the accident. After identifying the cause of the accident, help your supervisor to take appropriate actions to prevent occurrences of similar accidents in future.

4.2.4 Types of Emergencies

It is important to have policies and procedures to tackle the given categories of emergencies. You should be aware of at least the basic procedures to handle emergencies. The basic procedures that you should be aware of depend on the business of your organization. Typically, you should seek answers to the following questions to understand what basic emergency procedures that you should be aware of:

- What is the evacuation plan and procedure to follow in case of an emergency?
- Who all should you notify within the organization?
- Which external agencies, such as police or ambulance, you should notify in which emergency?

Fig 4.2.4

What all services and equipment should you shut down during which emergency?

Here are some general emergency handling procedures that you can follow:

- Keep a list of numbers to call during emergency, such as those of police, fire brigade, security, ambulance etc. Ensure that these numbers are fed into the organizations telephone program and hard copies of the numbers are placed at strategic locations in the organization.

- Regularly check that all emergency handling equipments are in working condition, such as the fire extinguisher and fire alarm system.

Ensure that emergency exits are not obstructed and keys to such exists are easily accessible. Never place any objects near the emergency doors or windows

4.2.5 Check Your Understanding

1. True or False? An accident is a serious or crisis situation that needs immediate attention and action.

a. True

b. False

2. Which of the following are appropriate actions for handling accidents and emergencies? Select the two correct actions.

a) You should give medical treatment or first aid to the injured even if you are not properly trained in such procedures because such treatments should be given promptly.

b) Take decisions beyond the organization's policies and guidelines, if the situation requires.

c) Get help promptly and in the most suitable way.

d) Follow instructions given by senior staff and the emergency services.

3. Match each type of emergency with its corresponding example.

Type of Emergency	Example
A. Medical	i. Earthquake
B. Substance	ii. Power failure
C. Structural	iii. Armed robbery
D. Security	iv. An expectant mother in labor
E. Natural Disaster	v. Chemical spills

4.2.6 Summary

⬜ Identify and report accidents and emergencies:

- Notice and correctly identify accidents and emergencies.

- Get help promptly and in the most suitable way.

- Follow company policy and procedures for preventing further injury while waiting for help to arrive.

- Act within the limits of your responsibility and authority when accidents and emergencies arise.

- Promptly follow the instructions given by senior staff and the emergency services personnel.

⬜ Handling accidents:

- Attend the injured person immediately.

- Inform your supervisor about the accident giving details.

- Assist your supervisor in investigating and finding out the actual cause of the accident.

⬜ General emergency handling procedures:

- Keep a list of numbers to call during emergencies.

- Regularly check that all emergency handling equipment is in working condition.

- Ensure that emergency exits are not obstructed.

Unit 4.3: Protect Health & Safety at your work

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Understand what is meant by hazards
2. Identify different types of potential health and safety hazards that can be found in the workplace
3. Create a workplace safety checklist
4. Understand the common safety signs used
5. Identify the problems related to safety in the given situations

4.3.1 Hazards and sources of Hazards

What are hazards?

In relation to workplace safety and health, hazard can be defined as any source of potential harm or danger to someone or any adverse health effect produced under certain condition.

A hazard can harm an individual or an organization. For example, hazard to an organization include loss of property or equipment while hazard to an individual involve harm to health or body.

A variety of sources can be potential source of hazard at workplace. These hazards include practices or substances that may cause harm. Here are a few examples of potential hazards:

⬚ Material: Knife or sharp edged nails can cause cuts.

⬚ Substance: Chemicals such as Benzene can cause fume suffocation. Inflammable substances like petrol can cause fire.

⬚ Electrical energy: Naked wires or electrodes can result in electric shocks.

⬚ Condition: Wet floor can cause slippage. Working conditions in mines can cause health hazards.

⬚ Gravitational energy: Objects falling on you can cause injury.

⬚ Rotating or moving objects: Clothes entangled into ratting objects can cause serious harm. Similarly, moving objects can hit you and injure you if you are not careful.

Fig 4.3.1

Potential Sources of Hazards in an Organization

Using computers: Hazards include poor sitting postures or excessive duration of sitting in one position. These hazards may result in pain and strain. Making same movement repetitively can also cause muscle fatigue In addition, glare from the computer screen can be harmful to eyes. Stretching up at regular intervals or doing some simple yoga in your seat only can mitigate such hazards.

Handling office equipment: Improper handling of office equipment can result in injuries. For example, sharp-edged equipment if not handled properly can cause cuts. Staff members should be trained to handle equipment properly. Relevant manual should be made available by administration on handling equipment.

Handling objects: Lifting or moving heavy items without proper procedure or techniques can be a source of potential hazard. Always follow approved procedure and proper posture for lifting or moving objects.

Stress at work: In today's organization, you may encounter various stress causing hazards. Long working hours can be stressful and so can be aggressive conflicts or arguments with colleagues. Always look for ways for conflict resolution with colleagues. Have some relaxing hobbies for stress against long working hours.

Working environment: Potential hazards may include poor ventilation, inappropriate height chairs and tables, stiffness of furniture, poor lighting, staff unaware of emergency procedures, or poor housekeeping. Hazards may also include physical or emotional intimidation, such as bullying or ganging up against someone. Staff should be made aware of organization's policies to fight against all the given hazards related to working environment.

4.3.2: General Evacuation Procedures

Each organization will has its own evacuation procedures as listed in its policies. An alert employee, who is well-informed about evacuation procedures, can not only save him or herself, but also helps others in case of emergencies. Therefore, you should be aware of these procedures and follow them properly during an emergency evacuation. Read your organization's policies to know about the procedures endorsed by it. In addition, here are a few general evacuation steps that will always be useful in such situations:

- Leave the premises immediately and start moving towards the nearest emergency exit.
- Guide your customers to the emergency exits.
- If possible, assist any person with disability to move towards the emergency exit. However, do not try to carry anyone unless you are trained to do so.
- Keep yourself light when evacuating the premises. You may carry your hand-held belongings, such as bags or briefcase as you move towards the emergency exit. However, do not come back into the building to pick up your belongings unless the area is declared safe.
- Do not use the escalators or elevators (lifts) to avoid overcrowding and getting trapped, in case there is a power failure. Use the stairs instead.
- Go to the emergency assembly area. Check if any of your colleagues are missing and immediately

inform the personnel in charge of emergency evacuation or your supervisor.

- Do not go back to the building you have evacuated till you are informed by authorized personnel that it is safe to go inside.

After discussing the course content, ask candidates to prompt the key points on their understanding of the evacuation procedures at their current organization.

4.3.3 Safety Signs

Fig 4.3.3. Some of the common safety signs are given below. Note down the labels for each sign.

Review: Safety Guidelines Checklist

1. Store all cleaning chemicals in tightly closed containers in separate cupboards.

2. Keep the kitchen clean and dry all the time.

3. Throw away rubbish daily.

4. Make sure all areas have proper lighting.

5. In case of any injury or fracture, do not move the person until he or she has received medical attention.

6. Do not wear loose clothing or jewelry when working with machines. It may catch on moving

equipment and cause a serious injury.

7. Never distract the attention of people who are working near fire or with some machinery, tools or equipment.

8. Where required, wear protective items, such as goggles, safety glasses, masks, gloves, hair nets, etc.

9. Shut down all machines before leaving for the day.

10. Do not play with electrical controls or switches.

11. Do not operate machines or equipment until you have been properly trained and allowed to do so by your supervisor.

12. Do not adjust, clean or oil moving machinery.

13. Stack all shelves in an orderly way.

14. Stack all boxes and crates properly.

15. Never leave dishrags, aprons and other clothing near any hot surface.

16. Repair torn wires or broken plugs before using any electrical equipment.

17. Do not use equipment if it smokes, sparks or looks unsafe.

18. Cover all food with a lid, plastic wrap or aluminium foil.

19. Do not smoke in "No Smoking" areas.

20. Report any unsafe condition or acts to your supervisor. These could include:

- Slippery floors
- Missing entrance and exit signs
- Poorly lighted stairs
- Loose handrails or guard rails
- Loose, open or broken windows
- Dangerously piled supplies or equipment
- Unlocked doors and gates
- Electrical equipment left operating
- Open doors on electrical panels
- Leaks of steam, water, oil or other liquids
- Blocked aisles
- Blocked fire extinguishers.
- Blocked fire doors
- Smoke in non-smoking areas
- Roof leaks
- Safety devices not operating properly

4.3.4: Find the Hazard Risk in pictures

In this activity, you will be shown some pictures. Observe the displayed pictures carefully and identify the problems in each of the pictures that could cause accidents.

Situation

Picture 1

Possible Answers:

Situation

Picture 2

Possible Answers:

Situation

Picture 3

Possible Answers:

4.3.5 Healthy Living

Healthy Living

What constitutes healthy living?

Fig 4.3.5

Eating a balanced diet: A balanced diet is a meal that provides you the right amount of carbohydrate, fat, protein, vitamins, and minerals. A balanced diet helps to keep you physically fit and provides stamina to work.

Having proper sleep: Good sleep reduces stress, reduces risk for developing diseases, and keeps you alert. You need to get 6 or 7 hours of sleep each night. Lack of sleep increases the chances of high blood pressure and cholesterol, and stroke.

Exercising regularly: Exercise is a physical activity that keeps your body fit. Exercising helps prevent development of disease conditions and makes you energetic.

Avoiding bad habits, such as smoking and drinking: It's not too late to identify and change bad habits such as smoking, drinking, over-eating, and more. Understanding the harmful routines is the first step to reversing these. The next step is realizing ways correct them and embracing new ones, which help adopt healthier behaviours and start living a happier, healthier life.

Ergonomics: Ergonomics is the science concerned with designing and arranging things so that people can use them easily and safely. Applying ergonomics can reduce the potential for accidents, potential for injury and ill health, and improve performance and productivity.

4.3.6 Summary

- Hazards can be defined as any source of potential harm or danger to someone or any adverse health effect produced under certain condition.

- Some potential sources of hazards in an organization are as follows:
  - Using computers
  - Handling office equipment
  - Handling objects
  - Stress at work
  - Working environment
- Every employee should be aware of evacuation procedures and follow them properly during an emergency evacuation.
- Follow all safety rules and warning to keep your workplace free from accidents.
- Recognize all safety signs in offices.

Report any incidence of non-compliance to safety rules and anything that is a safety hazard.

5. Employability and Entrepreneurship Skills

IT - ITeS SSC
NASSCOM

Skill India
कौशल भारत - कुशल भारत

सत्यमेव जयते
GOVERNMENT OF INDIA
MINISTRY OF SKILL DEVELOPMENT
& ENTREPRENEURSHIP

N S·D·C
National
Skill Development
Corporation
Transforming the skill landscape

Key Learning Outcomes

At the end of this unit, you will be able to:

1. Explain the meaning of health
2. List common health issues
3. Discuss tips to prevent common health issues
4. Explain the meaning of hygiene
5. Discuss the purpose of Swacch Bharat Abhiyan
6. Explain the meaning of habit
7. Discuss ways to set up a safe work environment
8. Discuss critical safety habits to be followed by employees
9. Explain the importance of self-analysis
10. Discuss motivation with the help of Maslow's Hierarchy of Needs
11. Discuss the meaning of achievement motivation
12. List the characteristics of entrepreneurs with achievement motivation
13. List the different factors that motivate you
14. Discuss the role of attitude in self-analysis
15. Discuss how to maintain a positive attitude
16. List your strengths and weaknesses
17. Discuss the qualities of honest people
18. Describe the importance of honesty in entrepreneurs
19. Discuss the elements of a strong work ethic
20. Discuss how to foster a good work ethic
21. List the characteristics of highly creative people
22. List the characteristics of highly innovative people
23. Discuss the benefits of time management
24. List the traits of effective time managers
25. Describe effective time management technique
26. Discuss the importance of anger management
27. Describe anger management strategies
28. Discuss tips for anger management
29. Discuss the causes of stress
30. Discuss the symptoms of stress
31. Discuss tips for stress management
32. Identify the basic parts of a computer
33. Identify the basic parts of a keyboard
34. Recall basic computer terminology

Recall the functions of basic computer keys

36. Discuss the main applications of MS Office
37. Discuss the benefits of Microsoft Outlook
38. Discuss the different types of e-commerce
39. List the benefits of e-commerce for retailers and customers
40. Discuss how the Digital India campaign will help boost e-commerce in India
41. Describe how you will sell a product or service on an e-commerce platform

42. Discuss the importance of saving money
43. Discuss the benefits of saving money
44. Discuss the main types of bank accounts
45. Describe the process of opening a bank account
46. Differentiate between fixed and variable costs
47. Describe the main types of investment options
48. Describe the different types of insurance products
49. Describe the different types of taxes
50. Discuss the uses of online banking
51. Discuss the main types of electronic funds transfers
52. Discuss the steps to prepare for an interview
53. Discuss the steps to create an effective Resume
54. Discuss the most frequently asked interview questions
55. Discuss how to answer the most frequently asked interview questions
56. Discuss basic workplace terminology
57. Discuss the concept of entrepreneurship
58. Discuss the importance of entrepreneurship
59. Describe the characteristics of an entrepreneur
60. Describe the different types of enterprises
61. List the qualities of an effective leader
62. Discuss the benefits of effective leadership
63. List the traits of an effective team
64. Discuss the importance of listening effectively
65. Discuss how to listen effectively
66. Discuss the importance of speaking effectively
67. Discuss how to speak effectively
68. Discuss how to solve problems
69. List important problem solving traits
70. Discuss ways to assess problem solving skills
71. Discuss the importance of negotiation
72. Discuss how to negotiate
73. Discuss how to identify new business opportunities
74. Discuss how to identify business opportunities within your business
75. Explain the meaning of entrepreneur
76. Describe the different types of entrepreneurs
77. List the characteristics of entrepreneurs
78. Recall entrepreneur success stories
79. Discuss the entrepreneurial process
80. Describe the entrepreneurship ecosystem
81. Discuss the purpose of the Make in India campaign
82. Discuss key schemes to promote entrepreneurs
83. Discuss the relationship between entrepreneurship and risk appetite
84. Discuss the relationship between entrepreneurship and resilience

85. Describe the characteristics of a resilient entrepreneur
86. Discuss how to deal with failure
87. Discuss how market research is carried out
88. Describe the 4 Ps of marketing
89. Discuss the importance of idea generation
90. Recall basic business terminology
91. Discuss the need for CRM
92. Discuss the benefits of CRM
93. Discuss the need for networking
94. Discuss the benefits of networking
95. Discuss the importance of setting goals
96. Differentiate between short-term, medium-term and long-term goals
97. Discuss how to write a business plan
98. Explain the financial planning process
99. Discuss ways to manage your risk
100. Describe the procedure and formalities for applying for bank finance
101. Discuss how to manage your own enterprise
102. List important questions that every entrepreneur should ask before starting an enterprise

Unit 5.1: Personal Strengths & Value System

Unit Objectives ⌖

At the end of this unit, you will be able to:

1. Explain the meaning of health

2. List common health issues

3. Discuss tips to prevent common health issues

4. Explain the meaning of hygiene

5. Discuss the purpose of Swacch Bharat Abhiyan

6. Explain the meaning of habit

7. Discuss ways to set up a safe work environment

8. Discuss critical safety habits to be followed by employees

9. Explain the importance of self-analysis

10. Discuss motivation with the help of Maslow's Hierarchy of Needs

11. Discuss the meaning of achievement motivation

12. List the characteristics of entrepreneurs with achievement motivation

13. List the different factors that motivate you

14. Discuss the role of attitude in self-analysis

15. Discuss how to maintain a positive attitude

16. List your strengths and weaknesses

17. Discuss the qualities of honest people

18. Describe the importance of honesty in entrepreneurs

19. Discuss the elements of a strong work ethic

20. Discuss how to foster a good work ethic

21. List the characteristics of highly creative people

22. List the characteristics of highly innovative people

23. Discuss the benefits of time management

24. List the traits of effective time managers

25. Describe effective time management technique

26. Discuss the importance of anger management

27. Describe anger management strategies

28. Discuss tips for anger management

29. Discuss the causes of stress

30. Discuss the symptoms of stress

31. Discuss tips for stress management

5.1.1 Health, Habits, Hygiene: What is Health

As per the World Health Organization (WHO), health is a "State of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity." This means being healthy does not simply mean not being unhealthy – it also means you need to be at peace emotionally, and feel fit physically. For example, you cannot say you are healthy simply because you do not have any physical ailments like a cold or cough. You also need to think about whether you are feeling calm, relaxed and happy.

Common Health Issues

Some common health issues are:

- Allergies
- Asthma
- Skin Disorders
- Depression and Anxiety
- Diabetes
- Cough, Cold, Sore Throat
- Difficulty Sleeping
- Obesity

Taking measures to prevent ill health is always better than curing a disease or sickness. You can stay healthy by:

- Eating healthy foods like fruits, vegetables and nuts
- Cutting back on unhealthy and sugary foods
- Drinking enough water everyday
- Not smoking or drinking alcohol
- Exercising for at least 30 minutes a day, 4-5 times a week
- Taking vaccinations when required
- Practicing yoga exercises and meditation

How many of these health standards do you follow? Tick the ones that apply to you.

1. Get minimum 7-8 hours of sleep every night.
2. Avoid checking email first thing in the morning and right before you go to bed at nigh t.
3. Don't skip meals – eat regular meals at correct meal times.
4. Read a little bit every single day.
5. Eat more home cooked food than junk food.
6. Stand more than you sit.
7. Drink a glass of water first thing in the morning and have at least 8 glasses of water through the day.
8. Go to the doctor and dentist for regular checkups.
9. Exercise for 30 minutes at least 5 days a week.
10. Avoid consuming lots of aerated beverages

What is Hygiene

As per the World Health Organization (WHO), "Hygiene refers to conditions and practices that help to maintain health and prevent the spread of diseases." In other words, hygiene means ensuring that you do whatever is required to keep your surroundings clean, so that you reduce the chances of spreading germs and diseases.

For instance, think about the kitchen in your home. Good hygiene means ensuring that the kitchen is always spick and span, the food is put away, dishes are washed and dustbins are not overflowing with garbage. Doing all this will reduce the chances of attracting pests like rats or cockroaches, and prevent the growth of fungus and other bacteria, which could spread disease.

How many of these health standards do you follow? Tick the ones that apply to you.

1. Have a bath or shower every day with soap – and wash your hair with shampoo 2-3 times a week.
2. Wear a fresh pair of clean undergarments every day.
3. Brush your teeth in the morning and before going to bed.
4. Cut your fingernails and toenails regularly.
5. Wash your hands with soap after going to the toilet.
6. Use an anti-perspirant deodorant on your underarms if you sweat a lot.
7. Wash your hands with soap before cooking or eating.
8. Stay home when you are sick, so other people don't catch what you have.
9. Wash dirty clothes with laundry soap before wearing them again.
10. Cover your nose with a tissue/your hand when coughing or sneezing.

See how healthy and hygienic you are, by giving yourself 1 point for every ticked statement! Then take a look at what your score means.

Your Score

0-7 /20: You need to work a lot harder to stay fit and fine! Make it a point to practice good habits

daily and see how much better you feel!

7-14/20: Not bad, but there is scope for improvement! Try and add a few more good habits to your daily routine.

14-20/20: Great job! Keep up the good work! Your body and mind thank you!

Swacch Bharat Abhiyan

We have already discussed the importance of following good hygiene and health practices for ourselves. But, it is not enough for us to be healthy and hygienic. We must also extend this standard to our homes, our immediate surroundings and to our country as a whole.

The 'Swachh Bharat Abhiyan' (Clean India Mission) launched by Prime Minister Shri Narendra Modi on 2nd October 2014, believes in doing exactly this. The aim of this mission is to clean the streets and roads of India and raise the overall level of cleanliness. Currently this mission covers

4,041 cities and towns across the country. Millions of our people have taken the pledge for a clean India. You should take the pledge too, and do everything possible to keep our country clean!

What are Habits?

A habit is a behaviour that is repeated frequently. All of us have good habits and bad habits. Keep in mind the phrase by John Dryden: "We first make our habits, and then our habits make us." This is why it is so important that you make good habits a way of life, and consciously avoid practicing bad habits.

Some good habits that you should make part of your daily routine are:

- Always having a positive attitude
- Making exercise a part of your daily routine
- Reading motivational and inspirational stories
- Smiling! Make it a habit to smile as often as possible
- Making time for family and friends
- Going to bed early and waking up early
- Some bad habits that you should quit immediately are:
- Skipping breakfast
- Snacking frequently even when you are not hungry
- Eating too much fattening and sugary food
- Smoking, drinking alcohol and doing drugs
- Spending more money than you can afford
- Worrying about unimportant issues

- Staying up late and waking up late

Tips

⬚ Following healthy and hygienic practices every day will make you feel good mentally and physically.

- Hygiene is two-thirds of health – so good hygiene will help you stay strong and healthy!

5.1.2: Safety: Tips to Design a Safe Workplace

Every employer is obligated to ensure that his workplace follows the highest possible safety protocol. When setting up a business, owners must make it a point to:

- Use ergonomically designed furniture and equipment to avoid stooping and twisting
- Provide mechanical aids to avoid lifting or carrying heavy objects
- Have protective equipment on hand for hazardous jobs
- Designate emergency exits and ensure they are easily accessible
- Set down health codes and ensure they are implemented
- Follow the practice of regular safety inspections in and around the workplace
- Ensure regular building inspections are conducted
- Get expert advice on workplace safety and follow it

Non Negotiable Employee Safety

Every employee is obligated to follow all safety protocols put in place by the employer. All employees must make it a habit to:

- Immediately report unsafe conditions to a supervisor
- Recognize and report safety hazards that could lead to slips, trips and falls
- Report all injuries and accidents to a supervisor
- Wear the correct protective equipment when required
- Learn how to correctly use equipment provided for safety purposes
- Be aware of and avoid actions that could endanger other people
- Take rest breaks during the day and some time off from work during the week

Tips

- Be aware of what emergency number to call at the time of a workplace emergency
- Practice evacuation drills regularly to avoid chaotic evacuations

5.1.3 Self Analysis – Attitude, Achievement Motivation: What is Self Analysis

To truly achieve your full potential, you need to take a deep look inside yourself and find out what kind of person you really are. This attempt to understand your personality is known as self- analysis. Assessing yourself in this manner will help you grow, and will also help you to identify areas within yourself that need to be further developed, changed or eliminated. You can better understand yourself by taking a deep look at what motivates you, what your attitude is like, and what your strengths and weaknesses are.

What is Motivation

Very simply put, motivation is your reason for acting or behaving in a certain manner. It is important to understand that not everyone is motivated by the same desires – people are motivated by many, many different things. We can understand this better by looking at Maslow's Hierarchy of Needs.

What is Motivation

Famous American psychologist Abraham Maslow wanted to understand what motivates people. He believed that people have five types of needs, ranging from very basic needs (called physiological needs) to more important needs that are required for self-growth (called self-actualization needs). Between the physiological and self-actualization needs are three other needs – safety needs, belongingness and love needs, and esteem needs. These needs are usually shown as a pyramid with five levels and are known as Maslow's Hierarchy of Needs.
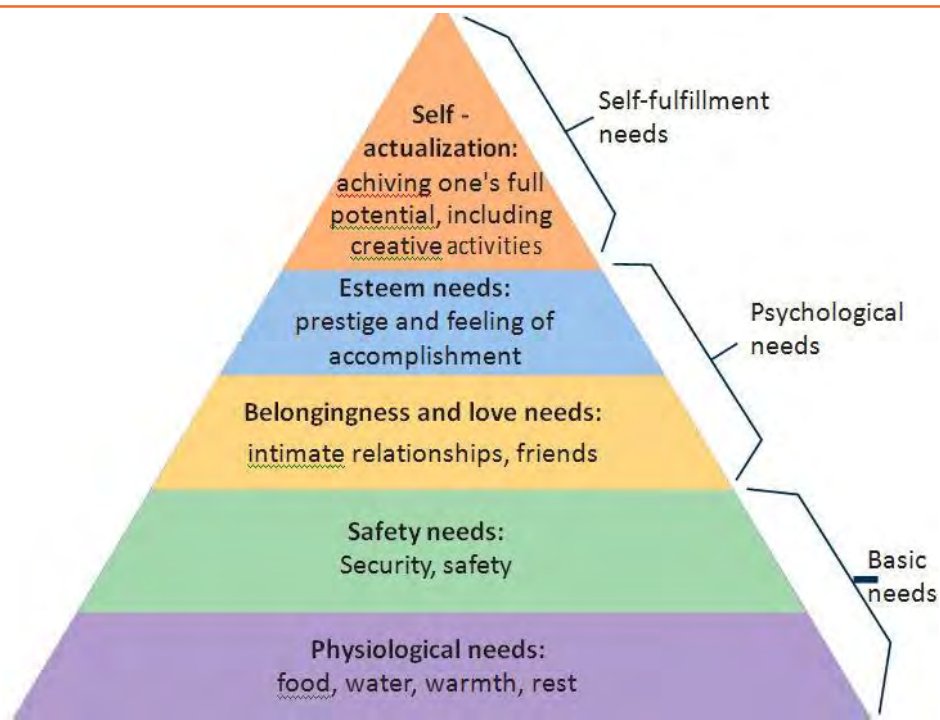
Fig 5.1.3

As you can see from the pyramid, the lowest level depicts the most basic needs. Maslow believed that our behaviour is motivated by our basic needs, until those needs are met. Once they are fulfilled, we move to the next level and are motived by the next level of needs. Let's understand this better with an example.

Rupa comes from a very poor family. She never has enough food, water, warmth or rest. According to Maslow, until Rupa is sure that she will get these basic needs, she will not even think about the next level of needs – her safety needs. But, once Rupa is confident that her basic needs will be met, she will move to the next level, and her behaviour will then be motivated by her need for security and safety. Once these new needs are met, Rupa will once again move to the next level, and be motivated by her need for relationships and friends. Once this need is satisfied, Rupa will then focus on the fourth level of needs – her esteem needs, after which she will move up to the fifth and last level of needs – the desire to achieve her full potential.

Understand Achievement Motivation

We now know that people are motivated by basic, psychological and self-fulfillment needs. However, certain people are also motivated by the achievement of highly challenging accomplishments. This is known as Achievement Motivation, or 'need for achievement'.

The level of motivation achievement in a person differs from individual to individual. It is important that entrepreneurs have a high level of achievement motivation – a deep desire to accomplish something important and unique. It is equally important that they hire people who are also highly motivated by challenges and success.

What Motivates You?

What are the things that really motivate you? List down five things that really motivate you. Remember to answer honestly!

I am motivated by:

_____

_____

_____

_____

_____

_____

_____

_____

Characteristics of Entrepreneurs with Achievement Motivation

Entrepreneurs with achivement motivation can be described as follows:

- Unafraid to take risks for personal accomplishment
- Love being challenged
- Future-oriented
- Flexible and adaptive

- Very persistent when it comes to achieving goals
- Extremely courageous
- Highly creative and innovative
- Restless – constantly looking to achieve more

- Value negative feedback more than positive feedback

- Feel personally responsible for solving problems

Think about it:

- How many of these traits do you have?

- Can you think of entrepreneurs who display these traits?

What is your strength and weakness?

Now that we understand why motivation is so important for self-analysis, let's look at the role our attitude plays in better understanding ourselves. Attitude can be described as your tendency (positive or negative), to think and feel about someone or something. Attitude is the foundation for success in every aspect of life. Our attitude can be our best friend or our worst enemy. In other words:

"The only disability in life is a bad attitude."

When you start a business, you are sure to encounter a wide variety of emotions, from difficult times and failures to good times and successes. Your attitude is what will see you through the tough times and guide you towards success. Attitude is also infectious. It affects everyone around you, from your customers to your employees to your investors. A positive attitude helps build confidence in the workplace while a negative attitude is likely to result in the demotivation of your people.

What is Attitude

The good news is attitude is a choice. So it is possible to improve, control and change our attitude, if we decide we want to! The following tips help foster a positive mindset:

- Remember that you control your attitude, not the other way around
- Devote at least 15 minutes a day towards reading, watching or listening to something positive
- Avoid negative people who only complain and stop complaining yourself
- Expand your vocabulary with positive words and delete negative phrases from your mind
- Be appreciative and focus on what's good in yourself, in your life, and in others
- Stop thinking of yourself as a victim and start being proactive
- Imagine yourself succeeding and achieving your goals

How to cultivate a Positive

Another way to analyze yourself is by honestly identifying your strengths and weaknesses. This will help you use your strengths to your best advantage and reduce your weaknesses.

Note down all your strengths and weaknesses in the two columns below. Remember to be honest with yourself!

Strengths	Weaknesses

Tips

Achievement motivation can be learned.

- • Don't be afraid to make mistakes.
- • Train yourself to finish what you start.
- • Dream big.

5.1.4 Honesty and work Ethics: What is Honesty

Honesty is the quality of being fair and truthful. It means speaking and acting in a manner that inspires trust. A person who is described as honest is seen as truthful and sincere, and as someone who isn't deceitful or devious and doesn't steal or cheat. There are two dimensions of honesty – one is honesty in communication and the other is honesty in conduct.

Honesty is an extremely important trait because it results in peace of mind and builds relationships that are based on trust. Being dishonest, on the other hand, results in anxiety and leads to relationships full of distrust and conflict

Qualities of Honest People

Honest individuals have certain distinct characteristics. Some common qualities among honest people are:

1. They don't worry about what others think of them. They believe in being themselves –
2. they don't bother about whether they are liked or disliked for their personalities.
3. They stand up for their beliefs. They won't think twice about giving their honest opinion, even if they are aware that their point of view lies with the minority.
4. They are think skinned. This means they are not affected by others judging them harshly for their honest opinions.
5. They forge trusting, meaningful and healthy friendships. Honest people usually surround themselves with honest friends. They have faith that their friends will be truthful and upfront with them at all times.
6. They are trusted by their peers. They are seen as people who can be counted on for truthful and objective feedback and advice.

Elements of Strong Work Ethics

One of the most important characteristics of entrepreneurs is honesty. When entrepreneurs are honest with their customers, employees and investors, it shows that they respect those that they work with. It is also important that entrepreneurs remain honest with themselves. Let's look at how being honest would lead to great benefits for entrepreneurs.

• Honesty and customers: When entrepreneurs are honest with their customers it leads to stronger relationships, which in turn results in business growth and a stronger customer network.

• Honesty and employees: When entrepreneurs build honest relationships with their employees, it leads to more transparency in the workplace, which results in higher work performance and better results.

• Honesty and investors: For entrepreneurs, being honest with investors means not only sharing strengths but also candidly disclosing current and potential weaknesses, problem areas and solution strategies. Keep in mind that investors have a lot of experience with startups and are aware that all new companies have problems. Claiming that everything is perfectly fine and running smoothly is a red flag for most investors.

• Honesty with oneself: The consequences of being dishonest with oneself can lead to dire results, especially in the case of entrepreneurs. For entrepreneurs to succeed, it is critical that they remain realistic about their situation at all times, and accurately judge every aspect of their enterprise for what it truly is.

Importance of Honesty in Entrepreneurs

Being ethical in the workplace means displaying values like honesty, integrity and respect in all your decisions and communications. It means not displaying negative qualities like lying, cheating and stealing.

Workplace ethics play a big role in the profitability of a company. It is as crucial to an enterprise as high morale and teamwork. This is why most companies lay down specific workplace ethic guidelines that must compulsorily be followed by their employees. These guidelines are typically outlined in a company's employee handbook.

What are work Ethics?

Honest individuals have certain distinct characteristics. Some common qualities among honest people are:

• **Professionalism:** This involves everything from how you present yourself in a corporate setting to the manner in which you treat others in the workplace.

• **Respectfulness**: This means remaining poised and diplomatic regardless of how stressful or volatile a situation is.

• **Dependability**: This means always keeping your word, whether it's arriving on time for a meeting or delivering work on time.

- **Dedication**: This means refusing to quit until the designated work is done, and completing the work at the highest possible level of excellence.
- **Determination**: This means embracing obstacles as challenges rather than letting them stop you, and pushing ahead with purpose and resilience to get the desired results.
- **Accountability**: This means taking responsibility for your actions and the consequences of your actions, and not making excuses for your mistakes.
- **Humility**: This means acknowledging everyone's efforts and had work, and sharing the credit for accomplishments.

How to foster a good work ethic

As an entrepreneur, it is important that you clearly define the kind of behaviour that you expect from each and every team member in the workplace. You should make it clear that you expect employees to display positive work ethics like:

⬚ **Honesty**: All work assigned to a person should be done with complete honesty, without any deceit or lies.

⬚ **Good attitude**: All team members should be optimistic, energetic, and positive.

⬚ **Reliability**: Employees should show up where they are supposed to be, when they are supposed to be there.

⬚ **Good work habits**: Employees should always be well groomed, never use inappropriate language, conduct themselves professionally at all times, etc.

⬚ **Initiative**: Doing the bare minimum is not enough. Every team member needs to be proactive and show initiative.

- **Trustworthiness**: Trust is non-negotiable. If an employee cannot be trusted, it's time to let that employee go.

⬚ **Respect:** Employees need to respect the company, the law, their work, their colleagues and themselves.

⬚ **Integrity:** Each and every team member should be completely ethical and must display above board behaviour at all times.

⬚ **Efficiency:** Efficient employees help a company grow while inefficient employees result in a waste of time and resources.

Tips

- Don't get angry when someone tells you the truth and you don't like what you hear.
- Always be willing to accept responsibility for your mistakes.

5.1.5 Creativity & Innovation: What is creativity?

Creativity means thinking outside the box. It means viewing things in new ways or from different perspectives, and then converting these ideas into reality. Creativity involves two parts: thinking and producing. Simply having an idea makes you imaginative, not creative. However, having an idea and acting on it makes you creative.

Characteristics of Highly Creative People

Some characteristics of creative people are:

- They are imaginative and playful
- They see issues from different angles
- They notice small details
- They have very little tolerance for boredom

- They detest rules and routine
- They love to daydream
- They are very curious

What is Innovation?

There are many different definitions of innovation. In simple terms, innovation means turning an idea into a solution that adds value. It can also mean adding value by implementing a new product, service or process, or significantly improving on an existing product, service or process.

What is Innovation?

Some characteristics of highly innovative people are:

- They embrace doing things differently

- They don't believe in taking shortcuts

- They are not afraid to be unconventional

- They are highly proactive and persistent

- They are organized, cautious and risk-averse

Tips

- Take regular breaks from your creative work to recharge yourself and gain fresh perspective.
- Build prototypes frequently, test them out, get feedback, and make the required changes

5.1.6 Time Management: What is Time Management?

Time management is the process organizing your time, and deciding how to allocate your time between different activities. Good time management is the difference between working smart (getting more done in less time) and working hard (working for more time to get more done).

Effective time management leads to an efficient work output, even when you are faced with tight deadlines and high pressure situations. On the other hand, not managing your time effectively results in inefficient output and increases stress and anxiety.

Characteristics of Highly Creative People

Time management can lead to huge benefits like:

- Greater productivity
- Better professional reputation
- Higher chances for career advancement

- Higher efficiency
- Reduced stress
- Greater opportunities to achieve goals

Not managing time effectively can result in undesirable consequences like:

- Missing deadlines
- Substandard work quality
- Stalled career

- Inefficient work output
- Poor professional reputation
- Increase in stress and anxiety

What is Innovation?

Some traits of effective time managers are:

- They begin projects early

- They set daily objectives
- They modify plans if required, to achieve better results
- They are flexible and open-minded
- They inform people in advance if their help will be required
- They know how to say no

- They break tasks into steps with specific Deadlines
- They continually review long term goals
- They think of alternate solutions if and when required
- They ask for help when required
- They create backup plans

What is Innovation?

You can manage your time better by putting into practice certain time management techniques. Some helpful tips are:

⬜ Plan out your day as well as plan for interruptions. Give yourself at least 30 minutes to figure out your time plan. In your plan, schedule some time for interruptions.

• Put up a "Do Not Disturb" sign when you absolutely have to complete a certain amount of work.

• Close your mind to all distractions. Train yourself to ignore ringing phones, don't reply to chat messages and disconnect from social media sites.

⬜ Delegate your work. This will not only help your work get done faster, but will also show you the unique skills and abilities of those around you.

⬜ Stop procrastinating. Remind yourself that procrastination typically arises due to the fear of failure or the belief that you cannot do things as perfectly as you wish to do them.

⬜ Prioritize. List each task to be completed in order of its urgency or importance level. Then focus on completing each task, one by one.

⬜ Maintain a log of your work activities. Analyze the log to help you understand how efficient you are, and how much time is wasted every day.

⬜ Create time management goals to reduce time wastage.

Tips

⬜ Always complete the most important tasks first.

• Get at least 7 – 8 hours of sleep every day.

⬜ Start your day early.

• Don't waste too much time on small, unimportant details.

⬜ Set a time limit for every task that you will undertake.

⬜ Give yourself some time to unwind between tasks.

5.1.7 Anger Management: What is Anger Management?

Anger management is the process of:

- Learning to recognize the signs that you, or someone else, is becoming angry
- Taking the best course of action to calm down the situation in a positive way

Anger management does not mean suppressing anger.

Importance of Anger Management

Anger is a perfectly normal human emotion. In fact, when managed the right way, anger can be considered a healthy emotion. However, if it is not kept in check, anger can make us act inappropriately and can lead to us saying or doing things that we will likely later regret.

Extreme anger can:

- **Hurt you physically:** It leads to heart disease, diabetes, a weakened immune system, insomnia, and high blood pressure.
- **Hurt you mentally:** It can cloud your thinking and lead to stress, depression and mental health issues.
- **Hurt your career**: It can result in alienating your colleagues, bosses, clients and lead to the loss of respect.
- **Hurt your relationships**: It makes it hard for your family and friends to trust you, be honest with you and feel comfortable around you.

This is why anger management, or managing anger appropriately, is so important.

Anger Management Strategies

Here are some strategies that can help you control your anger:

Strategy 1: Relaxation

Something as simple as breathing deeply and looking at relaxing images works wonders in calming down angry feelings. Try this simple breathing exercise:

1. Take a deep breath from your diaphragm (don't breathe from your chest)
2. Visualize your breath coming up from your stomach
3. Keep repeating a calming word like 'relax' or 'take it easy' (remember to keep breathing deeply while repeating the word)
4. Picture a relaxing moment (this can be from your memory or your imagination)

Follow this relaxation technique daily, especially when you realize that you're starting to feel angry.

Strategy 2: Cognitive Restructuring

Cognitive restructuring means changing the manner in which you think. Anger can make you curse, swear, exaggerate and act very dramatically. When this happens, force yourself to replace your angry thoughts with more logical ones. For instance, instead of thinking 'Everything is ruined' change your mindset and tell yourself 'It's not the end of the world and getting angry won't solve this'.

Strategy 3: Problem Solving

Getting angry about a problem that you cannot control is a perfectly natural response. Sometimes, try as you may, there may not be a solution to the difficulty you are faced with. In such cases, stop focusing on solving the problem, and instead focus on handling and facing the problem. Remind yourself that you will do your best to deal with the situation, but that you will not blame yourself if you don't get the solution you desire.

Strategy 4: Better Communication

When you're angry, it is very easy to jump to inaccurate conclusions. In this case, you need to force yourself to stop reacting, and think carefully about what you want to say, before saying it. Avoid saying the first thing that enters your head. Force yourself to listen carefully to what the other person is saying. Then think about the conversation before responding.

Strategy 5: Changing Your Environment

If you find that your environment is the cause of your anger, try and give yourself a break from your surroundings. Make an active decision to schedule some personal time for yourself, especially on days that are very hectic and stressful. Having even a brief amount of quiet or alone time is sure to help calm you down.

Tips for Anger Management

The following tips will help you keep your anger in check:

- Take some time to collect your thoughts before you speak out in anger.

- Express the reason for your anger in an assertive, but non-confrontational manner once you have calmed down.

- Do some form of physical exercise like running or walking briskly when you feel yourself getting angry.

- Make short breaks part of your daily routine, especially during days that are stressful.

- Focus on how to solve a problem that's making you angry, rather than focusing on the fact that the problem is making you angry.

Tips

- Try to forgive those who anger you, rather than hold a grudge against them.
- Avoid using sarcasm and hurling insults. Instead, try and explain the reason for your frustration in a polite and mature manner.

5.1.8 Stress Management: What is Stress

We say we are 'stressed' when we feel overloaded and unsure of our ability to deal with the pressures placed on us. Anything that challenges or threatens our well-being can be defined   as a stress. It is important to note that stress can be good and bad. While good stress keeps us going, negative stress undermines our mental and physical health. This is why it is so important to manage negative stress effectively.

Causes of Stress

Stress can be caused by internal and external factors.

Internal causes of stress

- Constant worry
- Pessimism
- Rigid thinking
- Negative self-talk
- Unrealistic expectations
- All in or all out attitude

External causes of stress

- Major life changes
- Difficulties at work or in school
- Difficulties with relationships
- Financial difficulties
- Having too much to do
- Worrying about one's children and/or family

Symptoms of Stress

Stress can manifest itself in numerous ways. Take a look at the cognitive, emotional, physical and behavioral symptoms of stress.

Cognitive Symptoms	Emotional Symptoms
• Memory problems	• Depression
• Concentration issues	• Agitation
• Lack of judgement	• Irritability
• Pessimism	• Loneliness
• Anxiety	• Anxiety
• Constant worrying	• Anger

Physical Symptoms	Behavioral Symptoms
• Aches and pain	• Increase or decrease in appetite
• Diarrhea or constipation	• Over sleeping or not sleeping enough
• Nausea	• Withdrawing socially
• Dizziness	• Ignoring responsibilities
• Chest pain and/or rapid heartbeat	• Consumption of alcohol or cigarettes
• Frequent cold or flu like feelings	• Nervous habits like nail biting, pacing etc.

Tips to Manage Stress

The following tips can help you manage your stress better:

• Note down the different ways in which you can handle the various sources of your stress.
• Remember that you cannot control everything, but you can control how you respond.
• Discuss your feelings, opinions and beliefs rather than reacting angrily, defensively or passively.
• Practice relaxation techniques like meditation, yoga or tai chi when you start feeling stressed.
• Devote a part of your day towards exercise.
• Eat healthy foods like fruits and vegetables. Avoid unhealthy foods especially those containing large amounts of sugar.
• Plan your day so that you can manage your time better, with less stress.
• Say no to people and things when required.
• Schedule time to pursue your hobbies and interests.
• Ensure you get at least 7-8 hours of sleep.
• Reduce your caffeine intake.
• Increase the time spent with family and friends.

Tips

• Force yourself to smile even if you feel stressed. Smiling makes us feel relaxed and happy.
• Stop yourself from feeling and thinking like a victim. Change your attitude and focus on being proactive.

Unit 5.2: Digital Literacy: A Recap

Unit Objectives ⊚

At the end of this unit, you will be able to:

1. Identify the basic parts of a computer
2. Identify the basic parts of a keyboard
3. Recall basic computer terminology
4. Recall the functions of basic computer keys
5. Discuss the main applications of MS Office
6. Discuss the benefits of Microsoft Outlook
7. Discuss the different types of e-commerce
8. List the benefits of e-commerce for retailers and customers
9. Discuss how the Digital India campaign will help boost e-commerce in India
10. Describe how you will sell a product or service on an e-commerce platform

5.2.1 Computer & Internet Basics: Basics Parts of Computers

Fig.5.2.1. Parts of a Computer

- **Central Processing Unit (CPU):** The brain of the computer. It interprets and carries out program instructions.
- **Hard Drive:** A device that stores large amounts of data.
- **Monitor:** The device that contains the computer screen where the information is visually displayed.
- **Mouse:** A hand-held device used to point to items on the monitor.
- **Speakers:** Devices that enable you to hear sound from the computer.
- **Printer:** A device that converts output from a computer into printed paper documents.

Basics of a Keyboard

Fig.5.2.2. Parts of a Keyboard

- **Arrow Keys**: Press these keys to move your cursor.
- **Space bar**: Adds a space.
- **Enter/Return**: Moves your cursor to a new line.
- **Shift**: Press this key if you want to type a capital letter or the upper symbol of a key.
- **Caps Lock**: Press this key if you want all the letters you type to be capital letters. Press it again to revert back to typing lowercase letters.
- **Backspace**: Deletes everything to the left of your cursor.

Basic Internet Terms

Force yourself to smile even if you feel stressed. Smiling makes us feel relaxed and happy.

- **The Internet**: A vast, international collection of computer networks that transfers information.
- **The World Wide Web:** A system that lets you access information on the Internet.
- **Website**: A location on the World Wide Web (and Internet) that contains information about a specific topic.
- **Homepage**: Provides information about a website and directs you to other pages on that website.
- **Link/Hyperlink**: A highlighted or underlined icon, graphic, or text that takes you to another file or object.
- **Web Address/URL**: The address for a website.
- **Address Box:** A box in the browser window where you can type in a web address.

Tips

- When visiting a .com address, there no need to type http:// or even www. Just type the name of the website and then press Ctrl + Enter. (Example: Type 'apple' and press Ctrl + Enter to go to www.apple.com)

- Press the Ctrl key and press the + or - to increase and decrease the size of text.

- Press F5 or Ctrl + R to refresh or reload a web page.

5.2.2 M.S. Office and Email: About M.S.Office

MS Office or Microsoft Office is a suite of computer programs developed by Microsoft. Although meant for all users, it offers different versions that cater specifically to students, home users and business users. All the programs are compatible with both, Windows and Macintosh.

Most Popular MS Office Products

Some of the most popular and universally used MS Office applications are:

- **Microsoft Word**: Allows users to type text and add images to a document.

- **Microsoft Excel**: Allows users to enter data into a spreadsheet and create calculations and graphs.

- **Microsoft PowerPoint**: Allows users to add text, pictures and media and create slideshows and presentations.

- **Microsoft Outlook**: Allows users to send and receive email.

- **Microsoft OneNote**: Allows users to make drawings and notes with the feel of a pen on paper.

- **Microsoft Access**: Allows users to store data over many tables.

Why Choose Microsoft Outlook

A popular email management choice especially in the workplace, Microsoft Outlook also includes an address book, notebook, web browser and calendar. Some major benefits of this program are:

- **Integrated search function**: You can use keywords to search for data across all Outlook programs.

- **Enhanced security**: Your email is safe from hackers, junk mail and phishing website email.

- **Email syncing**: Sync your mail with your calendar, contact list, notes in OneNote and…your phone!

- **Offline access to email**: No Internet? No problem! Write emails offline and send them when you're connected again.

Tips

- Press Ctrl+R as a shortcut method to reply to email.

- Set your desktop notifications only for very important emails.

- Flag messages quickly by selecting messages and hitting the Insert key.

- Save frequently sent emails as a template to reuse again and again.

- Conveniently save important emails as files.

5.2.3 E-Commerce: What is E-Commerce?

E-commerce is the buying or selling of goods and services, or the transmitting of money or data, electronically on the internet. E-Commerce is the short form for "electronic commerce."

Examples of E-Commerce

Some examples of e-commerce are:

- Online shopping
- Online auctions
- Online ticketing

- Electronic payments
- Internet banking

Types of E-Commerce

E-commerce can be classified based on the types of participants in the transaction. The main types of e-commerce are:

- **Business to Business (B2B)**: Both the transacting parties are businesses.

- **Business to Consumer (B2C)**: Businesses sell electronically to end-consumers.

- **Consumer to Consumer (C2C)**: Consumers come together to buy, sell or trade items to other consumers.

- **Consumer-to-Business (C2B)**: Consumers make products or services available for purchase to companies looking for exactly those services or products.

- **Business-to-Administration (B2A)**: Online transactions conducted between companies and public administration.

- **Consumer-to-Administration (C2A)**: Online transactions conducted between individuals

and public administration.

Benefits of E-Commerce

The e-commerce business provides some benefits for retailers and customers.

Benefits for retailers:

- Establishes an online presence
- Reduces operational costs by removing overhead costs
- Increases brand awareness through the use of good keywords
- Increases sales by removing geographical and time constraints

Benefits for customers:

- Offers a wider range of choice than any physical store
- Enables goods and services to be purchased from remote locations
- Enables consumers to perform price comparisons

Digital India Campaign

Prime Minister Narendra Modi launched the Digital India campaign in 2015, with the objective of offering every citizen of India access to digital services, knowledge and information. The campaign aims to improve the country's online infrastructure and increase internet connectivity, thus boosting the e-commerce industry.

Currently, the majority of online transactions come from tier 2 and tier 3 cities. Once the Digital India campaign is in place, the government will deliver services through mobile connectivity, which will help deliver internet to remote corners of the country. This will help the e- commerce market to enter India's tier 4 towns and rural areas.

E-Commerce Activity

Choose a product or service that you want to sell online. Write a brief note explaining how you will use existing e-commerce platforms, or create a new e-commerce platform, to sell your product or service.

Tips

- Before launching your e-commerce platform, test everything.

- Pay close and personal attention to your social media.

Unit 5.3: Money Matters

Unit Objectives

At the end of this unit, you will be able to:

1. Discuss the importance of saving money

2. Discuss the benefits of saving money

3. Discuss the main types of bank accounts

4. Describe the process of opening a bank account

5. Differentiate between fixed and variable costs

6. Describe the main types of investment options

7. Describe the different types of insurance products

8. Describe the different types of taxes

9. Discuss the uses of online banking

10. Discuss the main types of electronic funds transfers

5.3.1 Personal Finance: Why to Save: Importance of Saving

We all know that the future is unpredictable. You never know what will happen tomorrow, next week or next year. That's why saving money steadily through the years is so important. Saving money will help improve your financial situation over time. But more importantly, knowing that you have money stashed away for an emergency will give you peace of mind. Saving money also opens the door to many more options and possibilities.

Benefits of Savings

Inculcating the habit of saving leads to a vast number of benefits. Saving helps you:

- **Become financially independent**: When you have enough money saved up to feel secure you can start making your choices, from taking a vacation whenever you want, to switching careers or starting your own business.

- **Invest in yourself through education**: Through saving, you can earn enough to pay up for courses that will add to your professional experience and ultimately result in higher paying jobs.

- **Get out of debt**: Once you have saved enough as a reserve fund, you can use your savings to

pay off debts like loans or bills that have accumulated over time.

- **Be prepared for surprise expenses**: Having money saved enables you to pay for unforeseen expenses like sudden car or house repairs, without feeling financially stressed.

- **Pay for emergencies**: Saving helps you deal with emergencies like sudden health issues or emergency trips without feeling financially burdened.
- **Afford large purchases and achieve major goals:** Saving diligently makes it possible to place down payments towards major purchases and goals, like buying a home or a car.
- **Retire:** The money you have saved over the years will keep you comfortable when you no longer have the income you would get from your job**.**

Tips

- Break your spending habit. Try not spending on one expensive item per week, and put the money that you would have spent into your savings.

- Decide that you will not buy anything on certain days or weeks and stick to your word.

5.3.2 Types of Bank Accounts, Opening a Bank Account: Types of Bank Accounts

In India, banks offer four main types of bank accounts. These are:
- Current Accounts
- Savings Accounts
- Recurring Deposit Accounts
- Fixed Deposit Accounts

Current Accounts

Current accounts offer the most liquid deposits and thus, are best suited for businessmen and companies. As these accounts are not meant for investments and savings, there is no imposed limit on the number or amount of transactions that can be made on any given day. Current account holders are not paid any interest on the amounts held in their accounts. They are charged for certain services offered on such accounts.

Savings Accounts

Savings accounts are meant to promote savings, and are therefore the number one choice for salaried individuals, pensioners and students. While there is no restriction on the number and amount of deposits made, there are usually restrictions on the number and amount of withdrawals. Savings account holders are paid interest on their savings.

Recurring Deposit Accounts

Recurring Deposit accounts, also called RD accounts, are the accounts of choice for those who want to save an amount every month, but are unable to invest a large sum at one time. Such

account holders deposit a small, fixed amount every month for a pre-determined period (minimum 6 months). Defaulting on a monthly payment results in the account holder being charged a penalty amount. The total amount is repaid with interest at the end of the specified period.

Fixed Deposit Accounts

Fixed Deposit accounts, also called FD accounts, are ideal for those who wish to deposit their savings for a long term in return for a high rate of interest. The rate of interest offered depends on the amount deposited and the time period, and also differs from bank to bank. In the case of an FD, a certain amount of money is deposited by the account holder for a fixed period of time. The money can be withdrawn when the period expires. If necessary, the depositor can break the fixed deposit prematurely. However, this usually attracts a penalty amount which also differs from bank to bank.

Opening a Bank Account

Opening a bank account is quite a simple process. Take a look at the steps to open an account of your own:

Step 1: Fill in the Account Opening Form

This form requires you to provide the following information:

• Personal details (name, address, phone number, date of birth, gender, occupation, address)

• Method of receiving your account statement (hard copy/email)

• Details of your initial deposit (cash/cheque)

• Manner of operating your account (online/mobile banking/traditional via cheque, slip books) Ensure that you sign wherever required on the form.

Step 2: Affix your Photograph

Stick a recent photograph of yourself in the allotted space on the form.

Step 3: Provide your Know Your Customer (KYC) Details

KYC is a process that helps banks verify the identity and address of their customers. To open an account, every individual needs to submit certain approved documents with respect to photo identity (ID) and address proof. Some Officially Valid Documents (OVDs) are:

• Passport

• Driving License

• Voters' Identity Card

• PAN Card

• UIDAI (Aadhaar) Card

Step 4: Submit All your Documents

Submit the completed Account Opening Form and KYC documents. Then wait until the forms are processed and your account has been opened!

Tips

- Select the right type of account.

- Fill in complete nomination details.

- Ask about fees.

- Understand the rules.

- Check for online banking – it's convenient!

- Keep an eye on your bank balance.

5.3.3 Costs: Fixed Vs. Variable: What are Fixed and Variable Costs

Fixed costs and variable costs together make up a company's total cost. These are the two types of costs that companies have to bear when producing goods and services.

A fixed cost does not change with the volume of goods or services a company produces. It always remains the same.

A variable cost, on the other hand, increases and decreases depending on the volume of goods and services produced. In other words, it varies with the amount produced.

Difference between Fixed and Variable Costs

Let's take a look at some of the main differences between fixed and variable costs:

Criteria	Fixed	Variable Costs
Meaning	A cost that stays the same, regardless of the output produced.	A cost that changes when the output changes.
Nature	Time related.	Volume related.
Incurred	Incurred irrespective of units being produced.	Incurred only when units are produced.
Unit cost	Inversely proportional to the number of units produced.	Remains the same, per unit.
Examples	Depreciation, rent, salary, insurance, tax etc.	Material consumed, wages, commission on sales, packing

Tips

• When trying to determine whether a cost is fixed or variable, simply ask the following question: Will the particular cost change if the company stopped its production activities? If the answer is no, then it is a fixed cost. If the answer is yes, then it is probably a variable cost.

5.3.4 Investments, Insurance and Taxes: Investments

Investment means that money is spent today with the aim of reaping financial gains at a future time. The main types of investment options are as follows:

• **Bonds:** Bonds are instruments used by public and private companies to raise large sums of money – too large to be borrowed from a bank. These bonds are then issued in the public market and are bought by lenders.

• **Stocks:** Stocks or equity are shares that are issued by companies and are bought by the general public.

• **Small Savings Schemes:** Small Savings Schemes are tools meant to save money in small amounts. Some popular schemes are the Employees Provident Fund, Sukanya Samriddhi Scheme and National Pension Scheme.

• **Mutual Funds:** Mutual Funds are professionally managed financial instruments that invest money in different securities on behalf of investors.

• **Fixed Deposits:** A fixed amount of money is kept aside with a financial institution for a fixed amount of time in return for interest on the money.

• **Real Estate:** Loans are taken from banks to purchase real estate, which is then leased or sold with the aim of making a profit on the appreciated property price.

• **Hedge Funds:** Hedge funds invest in both financial derivatives and/or publicly traded securities.

• **Private Equity:** Private Equity is trading in the shares of an operating company that is not publicly listed and whose shares are not available on the stock market.

• **Venture Capital:** Venture Capital involves investing substantial capital in a budding company in return for stocks in that company.

Insurance

There are two types of insurance – Life Insurance and Non-Life or General Insurance.

Life Insurance

Life Insurance deals with all insurance covering human life.

Life Insurance Products

The main life insurance products are:

- **Term Insurance:** This is the simplest and cheapest form of insurance. It offers financial protection for a specified tenure, say 15 to 20 years. In the case of your death, your family is paid the sum assured. In the case of your surviving the term, the insurer pays nothing.

- **Endowment Policy:** This offers the dual benefit of insurance and investment. Part of the premium is allocated towards the sum assured, while the remaining premium gets invested in equity and debt. It pays a lump sum amount after the specified duration or on the death of the policyholder, whichever is earlier.

- **Unit-Linked Insurance Plan (ULIP):** Here part of the premium is spent on the life cover, while the remaining amount is invested in equity and debt. It helps develop a regular saving habit.

- **Money Back Life Insurance:** While the policyholder is alive, periodic payments of the partial survival benefits are made during the policy tenure. On the death of the insured, the insurance company pays the full sum assured along with survival benefits.

- **Whole Life Insurance:** It offers the dual benefit of insurance and investment. It offers insurance cover for the whole life of the person or up to 100 years whichever is earlier.

General Insurance

General Insurance deals with all insurance covering assets like animals, agricultural crops, goods, factories, cars and so on.

General Insurance Products

The main general insurance products are:

- **Motor Insurance:** This can be divided into Four Wheeler Insurance and Two Wheeler Insurance.

- **Health Insurance:** The main types of health insurance are individual health insurance, family floater health insurance, comprehensive health insurance and critical illness insurance.

- **Travel Insurance:** This can be categorised into Individual Travel Policy, Family Travel Policy, Student Travel Insurance and Senior Citizen Health Insurance.

- **Home Insurance:** This protects the house and its contents from risk.

- **Marine Insurance:** This insurance covers goods, freight, cargo etc. against loss or damage during transit by rail, road, sea and/or air.

Taxes

There are two types of taxes – Direct Taxes and Indirect Taxes.

Direct Tax

Direct taxes are levied directly on an entity or a person and are non-transferrable.

Some examples of Direct Taxes are:

• **Income Tax:** This tax is levied on your earning in a financial year. It is applicable to both, individuals and companies.

• **Capital Gains Tax:** This tax is payable whenever you receive a sizable amount of money. It is usually of two types – short term capital gains from investments held for less than 36 months and long term capital gains from investments held for longer than 36 months.

• **Securities Transaction Tax: T**his tax is added to the price of a share. It is levied every time you buy or sell shares.

• **Perquisite Tax:** This tax is levied is on perks that have been acquired by a company or used by an employee.

• **Corporate Tax:** Corporate tax is paid by companies from the revenue they earn.

Indirect Tax

Indirect taxes are levied on goods or services. Some examples of Indirect Taxes are:

• **Sales Tax:** Sales Tax is levied on the sale of a product.

• **Service Tax:** Service Tax is added to services provided in India.

• **Value Added Tax:** Value Added Tax is levied at the discretion of the state government. The tax is levied on goods sold in the state. The tax amount is decided by the state.

• **Customs Duty & Octroi:** Customs Duty is a charge that is applied on purchases that are imported from another country. Octroi is levied on goods that cross state borders within India.

• **Excise Duty:** Excise Duty is levied on all goods manufactured or produced in India.

Tips

• Think about how quickly you need your money back and pick an investment option accordingly.
• Ensure that you are buying the right type of insurance policy for yourself.
• Remember, not paying taxes can result in penalties ranging from fines to imprisonment.

5.3.5 Online Banking, NEFT, RTGS, etc.:
What is Online Banking

Internet or online banking allows account holders to access their account from a laptop at any location. In this way, instructions can be issued. To access an account, account holders simply need to use their unique customer ID number and password.

Internet banking can be used to:

• Find out an account balance

• Transfer amounts from one account to another

• Arrange for the issuance of cheques

• Instruct payments to be made

• Request for a cheque book

• Request for a statement of accounts

• Make a fixed deposit

Electronics Fund Transfer

Electronic funds transfer is a convenient way of transferring money from the comfort of one's own home, using integrated banking tools like internet and mobile banking.

Transferring funds via an electronic gateway is extremely convenient. With the help of online banking, you can choose to:

• Transfer funds into your own accounts of the same bank.

• Transfer funds into different accounts of the same bank.

• Transfer funds into accounts in different banks, using NEFT.

• Transfer funds into other bank accounts using RTGS.

• Transfer funds into various accounts using IMPS.

NEFT

NEFT stands for National Electronic Funds Transfer. This money transfer system allows you to electronically transfer funds from your respective bank accounts to any other account, either in the same bank or belonging to any other bank. NEFT can be used by individuals, firms and corporate organizations to transfer funds between accounts.

In order to transfer funds via NEFT, two things are required:
- A transferring bank
- A destination bank

Before you can transfer funds through NEFT, you will need to register the beneficiary who will be receiving the funds. In order to complete this registration, you will require the following information:
- Recipient's name
- Recipient's account number
- Recipient's bank's name
- Recipient's bank's IFSC code

RTGS

RTGS stands for Real Time Gross Settlement. This is a real time funds transfer system which enables you to transfer funds from one bank to another, in real time or on a gross basis. The transferred amount is immediately deducted from the account of one bank, and instantly credited to the other bank's account. The RTGS payment gateway is maintained by the Reserve Bank of India. The transactions between banks are made electronically.

RTGS can be used by individuals, companies and firms to transfer large sums of money. Before remitting funds through RTGS, you will need to add the beneficiary and his bank account details via your online banking account. In order to complete this registration, you will require the following information:

- Name of the beneficiary
- Beneficiary's bank address
- Beneficiary's account number
- Beneficiary's bank's IFSC code

IMPS

IMPS stands for Immediate Payment Service. This is a real-time, inter-bank, electronic funds transfer system used to transfer money instantly within banks across India. IMPS enables users to make instant electronic transfer payments using mobile phones through both, Mobile Banking and SMS. It can also be used through ATMs and online banking. IMPS is available 24 hours a day and 7 days a week. The system features a secure transfer gateway and immediately confirms orders that have been fulfilled.

To transfer money through IMPS, the you need to:
- Register for IMPS with your bank
- Receive a Mobile Money Identifier (MMID) from the bank
- Receive a MPIN from the bank

Once you have both these, you can login or make a request through SMS to transfer a particular amount to a beneficiary.

For the beneficiary to receive the transferred money, he must:

1. Link his mobile number with his respective account
2. Receive the MMID from the bank

In order to initiate a money transfer through IMPS, you will need to enter the following information:

1. The beneficiary's mobile number   2. The beneficiary's MMID

3. The transfer amount   4. Your MPIN

As soon as money has been deducted from your account and credited into the beneficiary's account, you will be sent a confirmation SMS with a transaction reference number, for future reference.

Difference Between NEFT, RTGS & IMPS

Criteria	NEFT	RTGS	IMPS
Settlement	Done in batches	Real-time	Real-time
	National Electronic Fund Transfer	Real Time Gross Settlement	Immediate Payment Service
	8:00 am – 6:30 pm	9:00 am – 4:30 pm	24x7
	8:00 am – 1:00 pm	9:00 am – 1:30 pm	24x7
	`1	`2 lacs	`1
	`10 lacs	`10 lacs per day	`2 lacs
	Upto 10,000 – `2.5 above 10,000 – 1 lac – `5 above 1 – 2 lacs – `15 above 2 – 5 lacs – `25 above 5 – 10 l acs –		Upto 10,000 – `5 above 10,000 – 1 lac – `5 above 1 – 2 lacs – `15

Tips

• Never click on any links in any e-mail message to access your online banking website.

• You will never be asked for your credit or debit card details while using online banking.

• Change your online banking password regularly.

Unit 5.4: Preparing for Employment & Self Employment

Unit Objectives 🎯

At the end of this unit, you will be able to:

1. Discuss the steps to prepare for an interview

2. Discuss the steps to create an effective Resume

3. Discuss the most frequently asked interview questions

4. Discuss how to answer the most frequently asked interview questions

5. Discuss basic workplace terminology

5.4.1 Interview Preparation: How to Prepare for an Interview

The success of your getting the job that you want depends largely on how well your interview for that job goes. Therefore, before you go in for your interview, it is important that you prepare for it with a fair amount of research and planning. Take a look at the steps to follow in order to be well prepared for an interview:

1. **Research the organization that you are having the interview with.**

• Studying the company beforehand will help you be more prepared at the time of the interview. Your knowledge of the organization will help you answer questions at the time of the interview, and will leave you looking and feeling more confident. This is sure to make you stand out from other, not as well informed, candidates.

• Look for background information on the company. Ty and find an overview of the company and its industry profile.

• Visit the company website to get a good idea of what the company does. A company website offers a wealth of important information. Read and understand the company's mission statement. Pay attention to the company's products/services and client list. Read through any press releases to get an idea of the company's projected growth and stability.

• Note down any questions that you have after your research has been completed.

2. **Think about whether your skills and qualifications match the job requirements.**

• Carefully read through and analyze the job description.

• Make a note of the knowledge, skills and abilities required to fulfill the job requirements.

• Take a look at the organization hierarchy. Figure out where the position you are applying for fits into this hierarchy.

3. **Go through the most typical interview questions asked, and prepare your responses.**

- Remember, in most interviews a mix of resume-based, behavioral and case study questions are asked.

- Think about the kind of answers you would like to provide to typical questions asked in these three areas.

- Practice these answers until you can express them confidently and clearly.

4. **Plan your attire for the interview.**

- It is always safest to opt for formal business attire, unless expressly informed to dress in business casual (in which case you should use your best judgement).

- Ensure that your clothes are clean and well-ironed. Pick neutral colours – nothing too bright or flashy.

- The shoes you wear should match your clothes, and should be clean and suitable for an interview.

- Remember, your aim is to leave everyone you meet with the impression that you are a professional and highly efficient person.

5. **Ensure that you have packed everything that you may require during the interview.**

- Carry a few copies of your resume. Use a good quality paper for your resume print outs.

- Always take along a notepad and a pen.

- Take along any information you may need to refer to, in order to fill out an application form.

- Carry a few samples of your work, if relevant.

6. **Remember the importance of non-verbal communication.**

- Practice projecting confidence. Remind yourself to smile and make eye contact. Practice giving a firm handshake.

- Keep in mind the importance of posture. Practice sitting up straight. Train yourself to stop nervous gestures like fidgeting and foot-tapping.

- Practice keeping your reactions in check. Remember, your facial expressions provide a good insight into your true feelings. Practice projecting a positive image.

7. **Make a list of questions to end the interview with.**

- Most interviews will end with the interviewer(s) asking if you have any questions. This is your chance to show that you have done your research and are interested in learning more about the company.

- If the interviewer does not ask you this question, you can inform him/her that you have some queries that you would like to discuss. This is the time for you to refer to the notes you made while studying the company.

- Some good questions to ask at this point are:
  - What do you consider the most important criteria for success in this job?
  - How will my performance be evaluated?

o What are the opportunities for advancement?

o What are the next steps in the hiring process?

• Remember, never ask for information that is easily available on the company website.

Tips

• Ask insightful and probing questions.

• When communicating, use effective forms of body language like smiling, making eye contact, and actively listening and nodding. Don't slouch, play with nearby items, fidget, chew gum, or mumble.

5.4.2 Preparing an Effective Resume: How to Create an Effective Resume

A resume is a formal document that lists a candidate's work experience, education and skills. A good resume gives a potential employer enough information to believe the applicant is worth interviewing. That's why it is so important to create a resume that is effective. Take a look at the steps to create an effective resume:

Step 1: Write the Address Section

The Address section occupies the top of your resume. It includes information like your name, address, phone number and e-mail address. Insert a bold line under the section to separate it from rest of your resume.

Example:

Khyati Mehta

Breach Candy, Mumbai – India

Contact No: +91 2223678270

Email: khyati.mehta@gmail.com

Step 2: Add the Profile Summary Section

This part of your resume should list your overall experiences, achievements, awards, certifications and strengths. You can make your summary as short as 2-3 bullet points or as long as 8-10 bullet points.

Example:

Profile Summary

• A Floor Supervisor graduated from University of Delhi having 6 years of experience in managing a retail outlet.

• Core expertise lies in managing retail staff, including cashiers and people working on the

floor.

Step 3: Include Your Educational Qualifications

When listing your academic records, first list your highest degree. Then add the second highest qualification under the highest one and so on. To provide a clear and accurate picture of your educational background, it is critical that include information on your position, rank, percentage or CPI for every degree or certification that you have listed.

If you have done any certifications and trainings, you can add a Trainings & Certifications section under your Educational Qualifications section.

Example:

Educational Qualifications

• *<Enter qualification> <enter date of qualification> from <enter name of institute> with <enter percentage or any other relevant scoring system>.*

Step 4: List Your Technical Skills

When listing your technical skills, start with the skills that you are most confident about. Then add the skills that you do not have as good a command over. It is perfectly acceptable to include just one skill, if you feel that particular skill adds tremendous value to your résumé. If you do not have any technical skills, you can omit this step.

Example:

Technical Skills

• *<Enter your technical skill here, if applicable>*

Step 5: Insert Your Academic Project Experience

List down all the important projects that you have worked on. Include the following information in this section:

• Project title	• Organization	• Platform used
• Contribution	• Description	

Example:

Academic Projects

Project Title: *<Insert project title>*

Organization: *<Insert the name of the organization for whom you did the project>*

Platform used: *<Insert the platform used, if any>* **Contribution**: *<Insert your contribution towards this project>* **Description**: *<Insert a description of the project in one line>*

Step 6: List Your Strengths

This is where you list all your major strengths. This section should be in the form of a bulleted list.

Example:

Strengths
- Excellent oral, written and presentation skills
- Action-oriented and result-focused
- Great time management skills

Step 7: List Your Extracurricular Activities

It is very important to show that you have diverse interests and that your life consists of more than academics. Including your extracurricular activities can give you an added edge over other candidates who have similar academic scores and project experiences. This section should be in the form of a bulleted list.

Example:

Extracurricular Activities
- *< Insert your extracurricular activity here. E.g.: Member of _____, played (name of sport) at_____level, won (name of prize/award) for___ >*

Step 8: Write Your Personal Details

The last section of your résumé must include the following personal information:

- Date of birth   • Gender & marital status
- Nationality   • Languages known

Example:

Personal Details
- Date of birth: 25th May, 1981
- Gender & marital status: Female, Single
- Nationality: Indian
- Languages known: English, Hindi, Tamil, French

Tips

- Keep your resume file name short, simple and informational.

- Make sure the resume is neat and free from typing errors.

- Always create your resume on plain white paper.

5.4.3 Interview FAQs

Take a look at some of the most frequently asked interview questions, and some helpful tips on how to answer them.

Q1. Can you tell me a little about yourself? Tips to answer:

- Don't provide your full employment or personal history.

- Offer 2-3 specific experiences that you feel are most valuable and relevant.

- Conclude with how those experiences have made you perfect for this specific role.

Q2. How did you hear about the position? Tips to answer:

- Tell the interviewer how you heard about the job – whether it was through a friend (name the friend), event or article (name them) or a job portal (say which one).

- Explain what excites you about the position and what in particular caught your eye about this role.

Q3. What do you know about the company? Tips to answer:

- Don't recite the company's About Us page.

- Show that you understand and care about the company's goals.

- Explain why you believe in the company's mission and values.

Q4. Why do you want this job? Tips to answer:

- Show that you are passionate about the job.

- Identify why the role is a great fit for you.

- Explain why you love the company.

Q5. Why should we hire you? Tips to answer:

- Prove through your words that you can not only do the work, but can definitely deliver excellent results.

- Explain why you would be a great fit with the team and work culture.

- Explain why you should be chosen over any other candidate.

Q6. What are your greatest professional strengths? Tips to answer:

• Be honest – share some of your real strengths, rather than give answers that you think sound good.

• Offer examples of specific strengths that are relevant to the position you are applying for.

• Provide examples of how you've demonstrated these strengths.

Q7. What do you consider to be your weaknesses? Tips to answer:

• The purpose of this question is to gauge your self-awareness and honesty.

• Give an example of a trait that you struggle with, but that you're working on to improve.

Q8. What are your salary requirements? Tips to answer:

• Do your research beforehand and find out the typical salary range for the job you are applying for.

• Figure out where you lie on the pay scale based on your experience, education, and skills.

• Be flexible. Tell the interviewer that you know your skills are valuable, but that you want the job and are willing to negotiate.

Q9. What do you like to do outside of work? Tips to answer:

• The purpose of this question is to see if you will fit in with the company culture.

• Be honest – open up and share activities and hobbies that interest and excite you.

Q10. If you were an animal, which one would you want to be? Tips to answer:

• The purpose of this question is to see if you are able to think on your feet.

• There's no wrong answer – but to make a great impression try to bring out your strengths or personality traits through your answer.

Q11: What do you think we could do better or differently? Tips to answer:

• The purpose of this question is to see if you have done your research on the company, and to test whether you can think critically and come up with new ideas.

• Suggest new ideas. Show how your interests and expertise would help you execute these ideas.

Q12: Do you have any questions for us? Tips to answer:

• Do not ask questions to which the answers can be easily found on the company website or through a quick online search.

• Ask intelligent questions that show your ability to think critically.

Tips

- Be honest and confident while answering.

- Use examples of your past experiences wherever possible to make your answers more impactful.

5.4.4 Work Readiness – Terms & Terminologies: Basic Workplace Terminology

Every employee should be well versed in the following terms:

- **Annual leave:** Paid vacation leave given by employers to employees.

- **Background Check:** A method used by employers to verify the accuracy of the information provided by potential candidates.

- **Benefits:** A part of an employee's compensation package.

- **Breaks:** Short periods of rest taken by employees during working hours.

- **Compensation Package:** The combination of salary and benefits that an employer provides to his/her employees.

- **Compensatory Time (Comp Time):** Time off in lieu of pay.

- **Contract Employee:** An employee who works for one organization that sells said employee's services to another company, either on a project or time basis.

- **Contract of Employment:** When an employee is offered work in exchange for wages or salary, and accepts the offer made by the employer, a contract of employment exists.

- **Corporate Culture:** The beliefs and values shared by all the members of a company, and imparted from one generation of employees to another.

- **Counter Offer/Counter Proposal:** A negotiation technique used by potential candidates to increase the amount of salary offered by a company.

- **Cover Letter:** A letter that accompanies a candidate's resume. It emphasizes the important points in the candidate's resume and provides real examples that prove the candidate's ability to perform the expected job role.

- **Curriculum Vitae (CV)/Resume:** A summary of a candidate's achievements, educational background, work experience, skills and strengths.

- **Declining Letter:** A letter sent by an employee to an employer, turning down the job offer made by the employer to the employee.

- **Deductions:** Amounts subtracted from an employee's pay and listed on the employee's pay slip.

- **Discrimination:** The act of treating one person not as favourably as another person.

- **Employee:** A person who works for another person in exchange for payment.

- **Employee Training:** A workshop or in-house training that an employee is asked to attend by his or her superior, for the benefit of the employer.

- **Employment Gaps:** Periods of unemployed time between jobs.
- **Fixed-Term Contract:** A contract of employment which gets terminated on an agreed-upon date.
- **Follow-Up:** The act of contacting a potential employer after a candidate has submitted his or her resume.
- **Freelancer/Consultant/Independent Contractor:** A person who works for him or herself and pitches for temporary jobs and projects with different employers.
- **Holiday**: Paid time-off from work.
- **Hourly Rate**: The amount of salary or wages paid for 60 minutes of work.
- **Internship**: A job opportunity offered by an employer to a potential employee, called an intern, to work at the employer's company for a fixed, limited time period.
- **Interview**: A conversation between a potential employee and a representative of an employer, in order to determine if the potential employee should be hired.
- **Job Application**: A form which asks for a candidate's information like the candidate's name, address, contact details and work experience. The purpose of a candidate submitting a job application, is to show that candidate's interest in working for a particular company.
- **Job Offer**: An offer of employment made by an employer to a potential employee.
- **Job Search Agent**: A program that enables candidates to search for employment opportunities by selecting criteria listed in the program, for job vacancies.
- **Lay Off**: A lay off occurs when an employee is temporarily let go from his or her job, due to the employer not having any work for that employee.
- **Leave**: Formal permission given to an employee, by his or her employer, to take a leave of absence from work.
- **Letter of Acceptance**: A letter given by an employer to an employee, confirming the offer of employment made by the employer, as well as the conditions of the offer.
- **Letter of Agreement**: A letter that outlines the terms of employment.
- **Letter of Recommendation**: A letter written for the purpose of validating the work skills of a person.
- **Maternity Leave**: Leave taken from work by women who are pregnant, or who have just given birth.
- **Mentor**: A person who is employed at a higher level than you, who offers you advice and guides you in your career.
- **Minimum wage**: The minimum wage amount paid on an hourly basis.
- **Notice**: An announcement made by an employee or an employer, stating that the employment contract will end on a particular date.
- **Offer of Employment**: An offer made by an employer to a prospective employee that contains important information pertaining to the job being offered, like the starting date, salary, working conditions etc.

- **Open-Ended Contract**: A contract of employment that continues till the employer or employee terminates it.

- **Overqualified**: A person who is not suited for a particular job because he or she has too many years of work experience, or a level of education that is much higher than required for the job, or is currently or was previously too highly paid.

- **Part-Time Worker**: An employee who works for fewer hours than the standard number of hours normally worked.

- **Paternity Leave**: Leave granted to a man who has recently become a father.

- **Recruiters/Headhunters/Executive Search Firms**: Professionals who are paid by employers to search for people to fill particular positions.

- **Resigning/Resignations**: When an employee formally informs his or her employer that he or she is quitting his or her job.

- **Self-Employed**: A person who has his or her own business and does not work in the capacity of an employee.

- **Time Sheet**: A form that is submitted to an employer, by an employee, that contains the number of hours worked every day by the employee.

Unit 5.5: Understanding Entrepreneurship

Unit Objectives ⊚

At the end of this unit, you will be able to:

1. Discuss the concept of entrepreneurship

2. Discuss the importance of entrepreneurship

3. Describe the characteristics of an entrepreneur

4. Describe the different types of enterprises

5. List the qualities of an effective leader

6. Discuss the benefits of effective leadership

7. List the traits of an effective team

8. Discuss the importance of listening effectively

9. Discuss how to listen effectively

10. Discuss the importance of speaking effectively

11. Discuss how to speak effectively

12. Discuss how to solve problems

13. List important problem solving traits

14. Discuss ways to assess problem solving skills

15. Discuss the importance of negotiation

16. Discuss how to negotiate

17. Discuss how to identify new business opportunities

18. Discuss how to identify business opportunities within your business

19. Explain the meaning of entrepreneur

20. Describe the different types of entrepreneurs

21. List the characteristics of entrepreneurs

22. Recall entrepreneur success stories

23. Discuss the entrepreneurial process

24. Describe the entrepreneurship ecosystem

25. Discuss the purpose of the Make in India campaign

26. Discuss key schemes to promote entrepreneurs

27. Discuss the relationship between entrepreneurship and risk appetite

28. Discuss the relationship between entrepreneurship and resilience

29. Describe the characteristics of a resilient entrepreneur

30. Discuss how to deal with failure

5.5.1 Concept Introduction, (Characteristic of an Entrepreneur, types of firms / types of enterprises): Entrepreneurs and Entrepreneurship

Anyone who is determined to start a business, no matter what the risk, is an entrepreneur. Entrepreneurs run their own start-up, take responsibility for the financial risks and use creativity, innovation and vast reserves of self-motivation to achieve success. They dream big and are determined to do whatever it takes to turn their idea into a viable offering. The aim of an entrepreneur is to create an enterprise. The process of creating this enterprise is known as entrepreneurship.

Importance of Entrepreneurship

Entrepreneurship is very important for the following reasons:

1. It results in the creation of new organizations

2. It brings creativity into the marketplace

3. It leads to improved standards of living

4. It helps develop the economy of a country

Characteristics of Entrepreneurs

All successful entrepreneurs have certain haracteristics in common. They are all:

• Extremely passionate about their work

• Confident in themselves

• Disciplined and dedicated

• Motivated and driven

• Highly creative

- Visionaries

- Open-minded

- Decisive

Entrepreneurs also have a tendency to:

- Have a high risk tolerance

- Thoroughly plan everything

- Manage their money wisely

- Make their customers their priority

- Understand their offering and their market in detail

- Ask for advice from experts when required

- Know when to cut their losses

Examples of Entrepreneurs

Some famous entrepreneurs are:

- Dhirubhai Ambani (Reliance)

- Dr. Karsanbhai Patel (Nirma)

- Azim Premji (Wipro)

- Anil Agarwal (Vedanta Resources)

Types of Enterprises

As an entrepreneur in India, you can own and run any of the following types of enterprises:

Sole Proprietorship

In a sole proprietorship, a single individual owns, manages and controls the enterprise. This type of business is the easiest to form with respect to legal formalities. The business and the owner have no separate legal existence. All profit belongs to the proprietor, as do all the losses - the liability of the entrepreneur is unlimited.

Partnership

A partnership firm is formed by two or more people. The owners of the enterprise are called partners. A partnership deed must be signed by all the partners. The firm and its partners have no separate legal existence. The profits are shared by the partners. With respect to

losses, the liability of the partners is unlimited. A firm has a limited life span and must be dissolved when any one of the partners dies, retires, claims bankruptcy or goes insane.

Limited Liability Partnership (LLP)

In a Limited Liability Partnership or LLP, the partners of the firm enjoy perpetual existence as well as the advantage of limited liability. Each partner's liability is limited to their agreed contribution to the LLP. The partnership and its partners have a separate legal existence.

Tips

- Learn from others' failures.

- Be certain that this is what you want.

- Search for a problem to solve, rather than look for a problem to attach to your idea.

5.5.2 Costs: Leadership & Teamwork: Leadership & Leaders

Leadership means setting an example for others to follow. Setting a good example means not asking someone to do something that you wouldn't willingly want to do yourself. Leadership is about figuring out what to do in order to win as a team, and as a company.

Leaders believe in doing the right things. They also believe in helping others to do the right things. An effective leader is someone who:

- Creates an inspiring vision of the future.

- Motivates and inspires his team to pursue that vision.

Leadership Qualities That All Entrepreneurs need

Building a successful enterprise is only possible if the entrepreneur in charge possesses excellent leadership qualities. Some critical leadership skills that every entrepreneur must have are:

1. **Pragmatism**: This means having the ability to highlight all obstacles and challenges, in order to resolve issues and reduce risks.

2. **Humility**: This means admitting to mistakes often and early, and being quick to take responsibility for your actions. Mistakes should be viewed as challenges to overcome, not opportunities to point blame.

3. **Flexibility**: It is critical for a good leader to be very flexible and quickly adapt to change. It is equally critical to know when to adapt and when not to.

4. **Authenticity**: This means showing both, your strengths and your weaknesses. It means being human and showing others that you are human.

5. **Reinvention**: This means refreshing or changing your leadership style when necessary. To do this, it's important to learn where your leadership gaps lie and find out what resources are required to close them.

6. **Awareness**: This means taking the time to recognize how others view you. It means understanding how your presence affects those around you.

Benefits for Effective Leadership

Effective leadership results in numerous benefits. Great leadership leads to the leader successfully:

• Gaining the loyalty and commitment of the team members

• Motivating the team to work towards achieving the company's goals and objectives

• Building morale and instilling confidence in the team members

• Fostering mutual understanding and team-spirit among team members

• Convincing team members about the need to change when a situation requires adaptability

Team Work and Teams

Teamwork occurs when the people in a workplace combine their individual skills to pursue a common goal. Effective teams are made up of individuals who work together to achieve this common goal. A great team is one who holds themselves accountable for the end result.

Importance of Teamwork in Entrepreneurial Success

For an entrepreneurial leader, building an effective team is critical to the success of a venture. An entrepreneur must ensure that the team he builds possesses certain crucial qualities, traits and characteristics. An effective team is one which has:

1. **Unity of purpose:** All the team members should clearly understand and be equally committed to the purpose, vision and goals of the team.

2. **Great communication skills:** Team members should have the ability to express their concerns, ask questions and use diagrams, and charts to convey complex information.

3. **The ability to collaborate:** Every member should feel entitled to provide regular feedback on new ideas.

4. **Initiative:** The team should consist of proactive individuals. The members should have the enthusiasm to come up with new ideas, improve existing ideas, and conduct their own research.

5. **Visionary members:** The team should have the ability to anticipate problems and act on these potential problem before they turn into real problems.

6. **Great adaptability skills:** The team must believe that change is a positive force. Change should be seen as the chance to improve and try new things.

7. **Excellent organizational skills:** The team should have the ability to develop standard work processes, balance responsibilities, properly plan projects, and set in place methods to measure progress and ROI.

Tips

- Don't get too attached to your original idea. Allow it to evolve and change.

- Be aware of your weaknesses and build a team that will complement your shortfalls.

- Hiring the right people is not enough. You need to promote or incentivize your most talented people to keep them motivated.

- Earn your team's respect.

5.5.3 Communication Skills: Listening & Speaking: The Importance of Listening Effectively

Listening is the ability to correctly receive and understand messages during the process of communication. Listening is critical for effective communication. Without effective listening skills, messages can easily be misunderstood. This results in a communication breakdown and can lead to the sender and the receiver of the message becoming frustrated or irritated.

It's very important to note that listening is not the same as hearing. Hearing just refers to sounds that you hear. Listening is a whole lot more than that. To listen, one requires focus. It means not only paying attention to the story, but also focusing on how the story is relayed, the way language and voice is used, and even how the speaker uses their body language. The ability to listen depends on how effectively one can perceive and understand both, verbal and non-verbal cues.

How to Listen Effectively

To listen effectively you should:

- Stop talking

- Stop interrupting

- Focus completely on what is being said

- Nod and use encouraging words and gestures

- Be open-minded

- Think about the speaker's perspective

- Be very, very patient

- Pay attention to the tone that is being used

- Pay attention to the speaker's gestures, facial expressions and eye movements

- Not try and rush the person

- Not let the speaker's mannerisms or habits irritate or distract you

How to Listen Effectively

How successfully a message gets conveyed depends entirely on how effectively you are able to get it through. An effective speaker is one who enunciates properly, pronounces words correctly, chooses the right words and speaks at a pace that is easily understandable. Besides this, the words spoken out loud need to match the gestures, tone and body language used.

What you say, and the tone in which you say it, results in numerous perceptions being formed. A person who speaks hesitantly may be perceived as having low self-esteem or lacking in knowledge of the discussed topic. Those with a quiet voice may very well be labelled as shy. And those who speak in commanding tones with high levels of clarity, are usually considered to be extremely confident. This makes speaking a very critical communication skill.

How to Speak Effectively

To speak effectively you should:

- Incorporate body language in your speech like eye contact, smiling, nodding, gesturing etc.

- Build a draft of your speech before actually making your speech.

- Ensure that all your emotions and feelings are under control.

- Pronounce your words distinctly with the correct pitch and intensity. Your speech should be crystal clear at all times.

- Use a pleasant and natural tone when speaking. Your audience should not feel like you are putting on an accent or being unnatural in any way.

- Use precise and specific words to drive your message home. Ambiguity should be avoided at all costs.

- Ensure that your speech has a logical flow.

- Be brief. Don't add any unnecessary information.

- Make a conscious effort to avoid irritating mannerisms like fidgeting, twitching etc.

- Choose your words carefully and use simple words that the majority of the audience will have no difficulty understanding.

- Use visual aids like slides or a whiteboard.

- Speak slowly so that your audience can easily understand what you're saying. However, be careful not to speak too slowly because this can come across as stiff, unprepared or even condescending.

- Remember to pause at the right moments.

Tips

- If you're finding it difficult to focus on what someone is saying, try repeating their words in your head.

- Always maintain eye contact with the person that you are communicating with, when speaking as well as listening. This conveys and also encourages interest in the conversation.

5.5.4 Problem Solving & Negotiation Skills:
What is a problem?

As per The Concise Oxford Dictionary (1995), a problem is, "A doubtful or difficult matter requiring a solution"

All problems contain two elements:

1. Goals   2. Obstacles

The aim of problem solving is to recognize the obstacles and remove them in order to achieve the goals.

How to Solve Problems

Solving a problem requires a level of rational thinking. Here are some logical
steps to follow when faced with an issue:

Step 1: Identify the problem	**Step 2:** Study the problem in detail
Step 3: List all possible solutions	**Step 4:** Select the best solution
Step 5: Implement the chosen solution	**Step 6:** Check that the problem has really been solved

Important Traits to Problem Solving

Highly developed problem solving skills are critical for both, business owners and their employees. The following personality traits play a big role in how effectively problems are solved:

- Being open minded
- Being proactive
- Having a positive attitude

- Asking the right questions
- Not panicking
- Focusing on the right problem

How to Assess for Problem Solving SKills

As an entrepreneur, it would be a good idea to assess the level of problem solving skills of potential candidates before hiring them. Some ways to assess this skill are through:

1. **Application forms**: Ask for proof of the candidate's problem solving skills in the application form.

2. **Psychometric tests**: Give potential candidates logical reasoning and critical thinking tests and see how they fare.

3. **Interviews**: Create hypothetical problematic situations or raise ethical questions and see how the candidates respond.

4. **Technical questions**: Give candidates examples of real life problems and evaluate their thought process.

What is Negotiation

Negotiation is a method used to settle differences. The aim of negotiation is to resolve differences through a compromise or agreement while avoiding disputes. Without negotiation, conflicts are likely to lead to resentment between people. Good negotiation skills help satisfy both parties and go a long way towards developing strong relationships.

Why Negotiate

Starting a business requires many, many negotiations. Some negotiations are small while others are critical enough to make or break a startup. Negotiation also plays a big role inside the workplace. As an entrepreneur, you need to know not only know how to negotiate yourself, but also how to train employees in the art of negotiation.

How to Negotiate

Take a look at some steps to help you negotiate:

Step 1: Pre-Negotiation Preparation	Agree on where to meet to discuss the problem, decide who all will be present and set a time limit for the discussion.
Step 2: Discuss the Problem	This involves asking questions, listening to the other side, putting your views forward and clarifying doubts.
Step 3: Clarify the Objective	Ensure that both parties want to solve the same problem and reach the same goal.
Step 4: Aim for a Win-Win Outcome	Try your best to be open minded when negotiating. Compromise and offer alternate solutions to reach an outcome where both parties win.
Step 5: Clearly Define the Agreement	When an agreement has been reached, the details of the agreement should be crystal clear to both sides, with no scope for misunderstandings.
Step 6: Implement the Agreed Upon Solution	Agree on a course of action to set the solution in motion

Tips

- Know exactly what you want before you work towards getting it

- Give more importance to listening and thinking, than speaking

- Focus on building a relationship rather than winning

- Remember that your people skills will affect the outcome

- Know when to walk away – sometimes reaching an agreement may not be possible

5.5.5 Business Opportunity Identification: Entrepreneurs and Opportunities

"The entrepreneur always searches for change, responds to it and exploits it as an opportunity."

Peter Drucker

The ability to identify business opportunities is an essential characteristic of an entrepreneur.

What is an Opportunity

The word opportunity suggests a good chance or a favourable situation to do something offered by circumstances.

A business opportunity means a good or favourable change available to run a specific business in a given environment, at a given point of time.

Common Questions faced by an Entrepreneur

A critical question that all entrepreneurs face is how to go about finding the business opportunity that is right for them.

Some common questions that entrepreneurs constantly think about are:

• Should the new enterprise introduce a new product or service based on an unmet need?

• Should the new enterprise select an existing product or service from one market and offer it in another where it may not be available?

• Should the enterprise be based on a tried and tested formula that has worked elsewhere? It is therefore extremely important that entrepreneurs must learn how to identify new and existing business opportunities and evaluate their chances of success.

When is an Idea an Opportunity

An idea is an opportunity when:

• It creates or adds value to a customer

• It solves a significant problem, removes a pain point or meets a demand

• Has a robust market and profit margin

• Is a good fit with the founder and management team at the right time and place

Factors to Consider when Looking for an Opportunity

Consider the following when looking for business opportunities:

- Economic trends
- Changes in funding
- Changing relationships between vendors, partners and suppliers
- Market trends
- Changes in political support
- Shift in target audience

Ways to Identify New Business Opportunities

1. **Identify Market Inefficiencies**

When looking at a market, consider what inefficiencies are present in the market. Think about ways to correct these inefficiencies.

2. **Remove Key Hassles**

Rather than create a new product or service, you can innovatively improve a product, service or process.

3. **Create Something New**

Think about how you can create a new experience for customers, based on existing business models.

4. **Pick a Growing Sector/Industry**

Research and find out which sectors or industries are growing and think about what opportunities you can tap in the same.

5. **Think About Product Differentiation**

If you already have a product in mind, think about ways to set it apart from the existing ones.

Ways to Identify Business Opportunities within Your Business

1. SWOT Analysis

An excellent way to identify opportunities inside your business is by creating a SWOT analysis. The acronym SWOT stands for strengths, weaknesses, opportunities, and threats. SWOT analysis framework:

STRENGTH
What are your strengths?
What unique capabilities do you posses?
What do you do better than others?
What do others percieve as your strengths?

WEAKNESSES
What are your weaknesses?
What do your competitors do better than you?

OPPORTUNITIES
What Trends may positively impact you?
What oppprtunities are available to you?

THREATS
Do you have solid financial support?
What trends may negatively impact you?

Fig.5|5.1. SWOT Analysis

Consider the following when looking for business opportunities:

By looking at yourself and your competitors using the SWOT framework, you can uncover opportunities that you can exploit, as well as manage and eliminate threats that could derail your success.

2. Establishing Your USP

Establish your USP and position yourself as different from your competitors. Identify why customers should buy from you and promote that reason.

Opportunity Analysis

Once you have identified an opportunity, you need to analyze it. To analyze an opportunity, you must:

• Focus on the idea

• Focus on the market of the idea

• Talk to industry leaders in the same space as the idea

• Talk to players in the same space as the idea

Tips

• Remember, opportunities are situational.
• Look for a proven track record.
• Avoid the latest craze.
• Love your idea.

5.5.6 Entrepreneurship Support Eco-System: What is an Entrepreneur

An entrepreneur is a person who:

• Does not work for an employee

• Runs a small enterprise

• Assumes all the risks and rewards of the enterprise, idea, good or service

Types of Entrepreneurs

There are four main types of entrepreneurs:

1. **The Traditional Entrepreneur**: This type of entrepreneur usually has some kind of skill – they can be a carpenter, mechanic, cook etc. They have businesses that have been around for numerous years like restaurants, shops and carpenters. Typically, they gain plenty of experience in a particular industry before they begin their own business in a similar field.

2. **The Growth Potential Entrepreneur**: The desire of this type of entrepreneur is to start an enterprise that will grow, win many customers and make lots of money. Their ultimate aim is to eventually sell their enterprise for a nice profit. Such entrepreneurs usually have a science or technical background.

3. **The Project-Oriented Entrepreneur**: This type of entrepreneur generally has a background in the Arts or psychology. Their enterprises tend to be focus on something that they are very passionate about.

4. **The Lifestyle Entrepreneur**: This type of entrepreneur has usually worked as a teacher or a secretary. They are more interested in selling something that people will enjoy, rather than making lots of money.

Characteristics of an Entrepreneur

Successful entrepreneurs have the following characteristics:

• They are highly motivated

• They are creative and persuasive

• They are mentally prepared to handle each and every task

• They have excellent business skills – they know how to evaluate their cash flow, sales and revenue

- They are willing to take great risks

- They are very proactive – this means they are willing to do the work themselves, rather than wait for someone else to do it

- They have a vision – they are able to see the big picture

- They are flexible and open-minded

- They are good at making decisions

Entrepreneur Success Stories

Dhiru Bhai Ambani

Dhirubhai Ambani began his entrepreneurial career by selling "bhajias" to pilgrims in Mount Girnar on weekends. At 16, he moved to Yemen where he worked as a gas-station attendant, and as a clerk in an oil company. He returned to India with Rs. 50,000 and started a textile trading company. Reliance went on to become the first Indian company to raise money in global markets and the first Indian company to feature in Forbes 500 list.

Dr. Karsanbhai Patel

Karsanbhai Patel made detergent powder in the backyard of his house. He sold his product door-to-door and offered a money back guarantee with every pack that was sold. He charged Rs. 3 per kg when the cheapest detergent at that time was Rs.13 per kg. Dr. Patel eventually started Nirma which became a whole new segment in the Indian domestic detergent market.

The Entrepreneurial Process

Let's take a look at the stages of the entrepreneurial process.

Stage 1: Idea Generation. The entrepreneurial process begins with an idea that has been thought of by the entrepreneur. The idea is a problem that has the potential to be solved.

Stage 2: Germination or Recognition. In this stage a possible solution to the identified problem is thought of.

Stage 3: Preparation or Rationalization. The problem is studied further and research is done to find out how others have tried to solve the same problem.

Stage 4: Incubation or Fantasizing. This stage involves creative thinking for the purpose of coming up with more ideas. Less thought is given to the problem areas.

Stage 5: Feasibility Study: The next step is the creation of a feasibility study to determine if the idea will make a profit and if it should be seen through.

Stage 6: Illumination or Realization. This is when all uncertain areas suddenly become clear. The entrepreneur feels confident that his idea has merit.

Stage 7: Verification or Validation. In this final stage, the idea is verified to see if it works and if it is useful.

Take a look at the diagram below to get a better idea of this process.
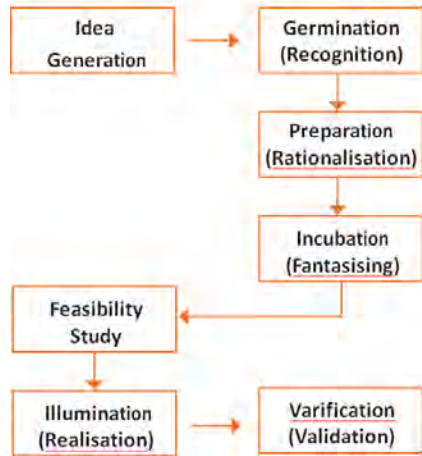
Introduction to Entrepreneurship Ecosystem

The entrepreneurship support ecosystem signifies the collective and complete nature of entrepreneurship. New companies emerge and flourish not only because of the courageous, visionary entrepreneurs who launch them, but they thrive as they are set in an environment or 'ecosystem' made of private and public participants. These players nurture and sustain the new ventures, facilitating the entrepreneurs' efforts.

An entrepreneurship ecosystem comprises of the following six domains:

1. **Favourable Culture:** This includes elements such as tolerance of risk and errors, valuable networking and positive social standing of the entrepreneur.

2. **Facilitating Policies & Leadership:** This includes regulatory framework incentives and existence of public research institutes.

3. **Financing Options:** Angel financing, venture capitalists and micro loans would be good examples of this.

4. **Human Capital:** This refers to trained and untrained labour, entrepreneurs and entrepreneurship training programmes, etc.

5. **Conducive Markets for Products & Services:** This refers to an existence or scope of existence of a market for the product/service.

6. **Institutional & Infrastructural Support:** This includes legal and financing advisers, telecommunications, digital and transportation infrastructure, and entrepreneurship networking programmes.

These domains indicate whether there is a strong entrepreneurship support ecosystem and what actions should the government put in place to further encourage this ecosystem. The six domains and their various elements have been graphically depicted.
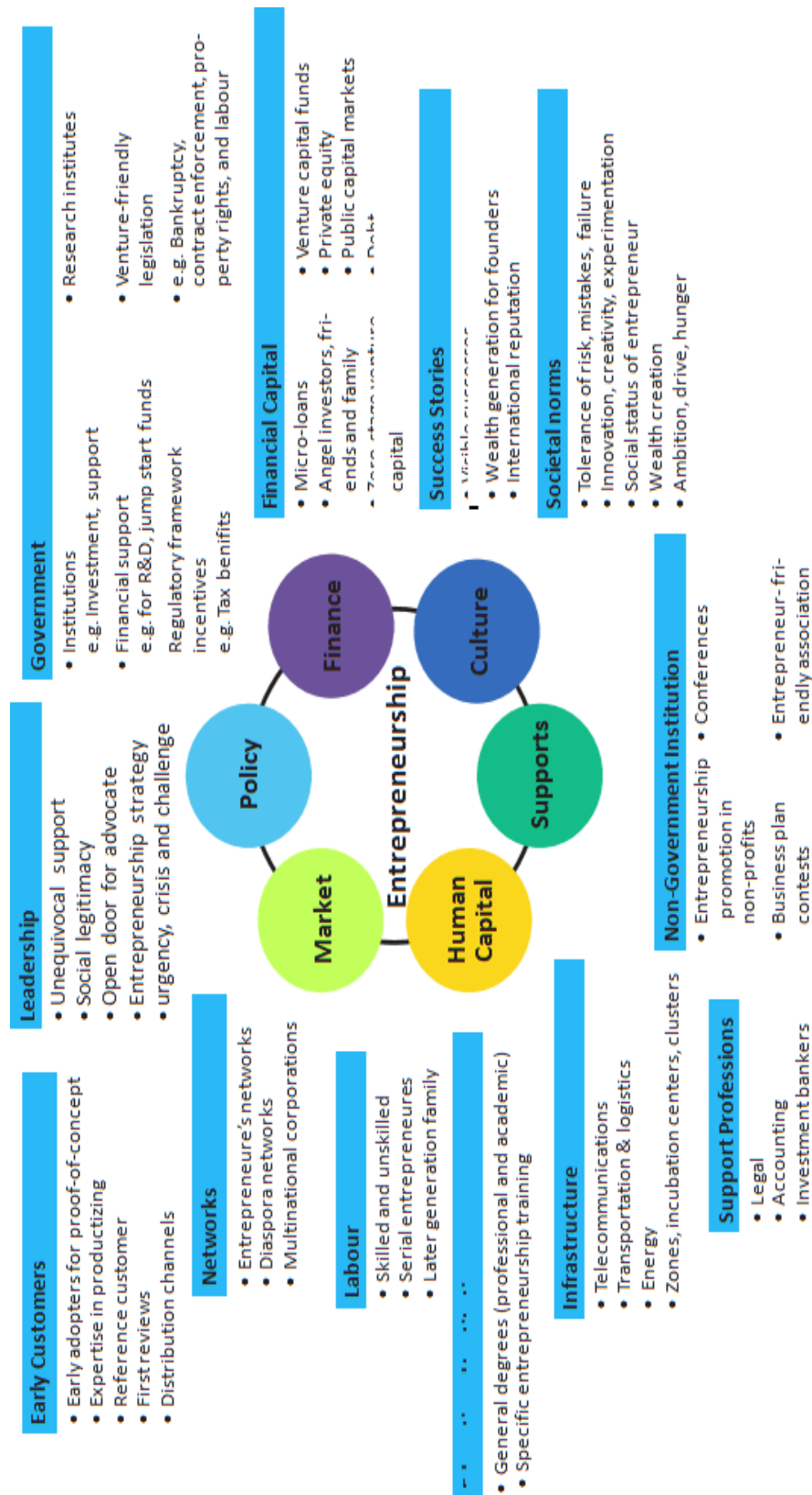
Early Customers
- Early adopters for proof-of-concept
- Expertise in productizing
- Reference customer
- First reviews
- Distribution channels

Leadership
- Unequivocal support
- Social legitimacy
- Open door for advocate
- Entrepreneurship strategy
- urgency, crisis and challenge

Government
- Institutions
  e.g. Investment, support
- Financial support
  e.g. for R&D, jump start funds
  Regulatory framework
  incentives
  e.g. Tax benifits
- Research institutes
- Venture-friendly
  legislation
- e.g. Bankruptcy,
  contract enforcement, pro-
  perty rights, and labour

Financial Capital
- Micro-loans
- Angel investors, fri-
  ends and family
- Venture capital funds
- Private equity
- Public capital markets

Success Stories
- Wealth generation for founders
- International reputation

Societal norms
- Tolerance of risk, mistakes, failure
- Innovation, creativity, experimentation
- Social status of entrepreneur
- Wealth creation
- Ambition, drive, hunger

Networks
- Entrepreneure's networks
- Diaspora networks
- Multinational corporations

Labour
- Skilled and unskilled
- Serial entrepreneures
- Later generation family

Infrastructure
- Telecommunications
- Transportation & logistics
- Energy
- Zones, incubation centers, clusters

Support Professions
- Legal
- Accounting
- Investment bankers

Non-Government Institution
- Entrepreneurship
  promotion in
  non-profits
- Business plan
  contests
- Conferences
- Entrepreneur-fri-
  endly association

- General degrees (professional and academic)
- Specific entrepreneurship training

Entrepreneurship
- Finance
- Culture
- Policy
- Supports
- Market
- Human Capital

Fig 5.5.6

Fig. 6.5.2 Entrepreneurship at a Glance

Every entrepreneurship support ecosystem is unique and all the elements of the ecosystem are interdependent. Although every region's entrepreneurship ecosystem can be broadly described by the above features, each ecosystem is the result of the hundred elements interacting in highly complex and particular ways.

Entrepreneurship ecosystems eventually become (largely) self-sustaining. When the six domains are resilient enough, they are mutually beneficial. At this point, government involvement can and should be significantly minimized. Public leaders do not need to invest a lot to sustain the ecosystem. It is imperative that the entrepreneurship ecosystem incentives are formulated to be self-liquidating, hence focusing on sustainability of the environment.

Made in India Campaign

Every entrepreneur has certain needs. Some of their important needs are:

- To easily get loans

- To easily find investors

- To get tax exemptions

- To easily access resources and good infrastructure

- To enjoy a procedure that is free of hassles and is quick

- To be able to easily partner with other firms

The Make in India campaign, launched by Prime Minister Modi aims to satisfy all these needs of young, aspiring entrepreneurs. Its objective is to:

- Make investment easy

- Support new ideas

- Enhance skill development

- Safeguard the ideas of entrepreneurs

- Create state-of-the-art facilities for manufacturing goods

Key Schemes to Promote Entrepreneurship

The government offers many schemes to support entrepreneurs. These schemes are run by various Ministries/Departments of Government of India to support First Generation Entrepreneurs. Take a look at a few key schemes to promote entrepreneurship:

Sl. Name of the Scheme

1. Pradhan Mantri MUDRA Yojana - Micro Units Development and Refinance Agency (MUDRA),

2. STAND UP INDIA

3. Prime Minister Employment Generation Programme (PMEGP)

4. International Cooperation

5. Performance and Credit Rating

6. Marketing Assistance Scheme

7. Reimbursement of Registration Fee for Bar Coding

8. Enable Participation of MSMEs in State/District level Trade Fairs and Provide Funding Support

9. Capital Subsidy Support on Credit for Technology up gradation

10. Credit Guarantee Fund for Micro and Small Enterprise (CGFMSE)

11. Reimbursement of Certification Fees for Acquiring ISO Standards

12. Agricultural Marketing

13. Small Agricultural Marketing

14. Mega Food Park

15. Adivasi Mahila Sashaktikaran Yojana

1. Pradhan Mantri MUDRA Yojana, - Micro Units Development and Refinance Agency (MUDRA),

Description

Under the aegis support of Pradhan Mantri MUDRA Yojana, MUDRA has already created its initial products/schemes. The interventions have been named 'Shishu', 'Kishor' and 'Tarun' to signify the stage of growth/development and funding needs of the beneficiary micro unit/entrepreneur and also provide a reference point for the next phase of graduation/ growth to look forward to:

a. Shishu: Covering loans upto Rs.50,000/-

b. Kishor: Covering loans above Rs. 50,000/- and upto Rs.5 lakh

c. Tarun: Covering loans above Rs. 5 lakh to Rs.10 lakh

Who can apply?

Any Indian citizen who has a business plan for a non-farm sector income generating activity such as manufacturing, processing, trading or service sector and whose credit need is less than Rs.10 lakh can approach either a Bank, MFI, or NBFC for availing of MUDRA loans under Pradhan Mantri Mudra Yojana (PMMY).

2. Stand Up India

Description

The objective of the Standup India scheme is to facilitate bank loans between Rs.10 lakh and

Rs.1 crore to at least one Schedule Caste (SC) or Scheduled Tribe (ST) borrower and at least one woman borrower per bank branch for setting up a Greenfield enterprise. This enterprise may be in manufacturing, services or the trading sector. In case of non- Individual enterprises at least 51% of the shareholding and controlling stake should be held be either an SC/ST or Woman Entrepreneur.

Who can apply?

ST, SC &Women

3. **Prime Minister Employment Generation Programme (PMEGP) Description**

   The Scheme is implemented by Khadi and Village Industries Commission (KVIC), as the nodal agency at the National level. At the State level, the Scheme is implemented through State KVIC Directorates, State Khadi and Village Industries Boards (KVIBs) and District Industries Centres (DICs) and banks. The Government subsidy under the Scheme is routed by KVIC through identified banks for eventual distribution to the beneficiaries/entrepreneurs in their bank accounts.

   Nature of assistance

   The maximum cost of the project/unit admissible under manufacturing sector is Rs.25 lakh and under business/service sector is Rs.10 lakh. Levels of funding under PMEGP

Categories of beneficiaries under PMEGP	Beneficiary's contribution	Rate of Subsidy
Area (location of project/unit)		Urban Rural
General Category	10%	15% 25%
Special (including SC / ST / OBC / Minorities / Women, Ex-servicemen, Physically handicapped, NER, Hill and Border areas	05%	25% 35%

   The balance amount of the total project cost will be provided by Banks as term loan as well as working capital.

   Who can apply?

   Any individual, above 18 years of age. At least VIII standard pass for projects costing above Rs.10 lakh in the manufacturing sector and above Rs.5 lakh in the business/ service sector. Only new projects are considered for sanction under PMEGP. Self Help Groups (including those belonging to BPL provided that they have not availed benefits under any other Scheme), Institutions registered under Societies Registration Act,1860;

Production Co-operative Societies, and Charitable Trusts are also eligible. Existing Units (under PMRY, REGP or any other scheme of Government of India or State Government) and the units that have already availed Government Subsidy under any other scheme of Government of India or State Government are NOT eligible.

4. International Cooperation
Description

The Scheme would cover the following activities:

a. Deputation of MSME business delegations to other countries for exploring new areas of technology infusion/upgradation, facilitating joint ventures, improving market of MSMEs products, foreign collaborations, etc.

b. Participation by Indian MSMEs in international exhibitions, trade fairs and buyer- seller meets in foreign countries as well as in India, in which there is international participation.

c. Holding international conferences and seminars on topics and themes of interest to the MSME.

Nature of assistance

IC Scheme provides financial assistance towards the airfare and space rent of entrepreneurs. Assistance is provided on the basis of size and the type of the enterprise.

Who can apply?

a.   State/Central Government Organisations;

b.   Industry/Enterprise Associations; and

c.   Registered Societies/Trusts and Organisations associated with the promotion and development of MSMEs

5. Performance and Credit Rating for Micro and Small Enterprises

Description

The objective of the Scheme is to create awareness amongst micro & small enterprises about the strengths and weaknesses of their operations and also their credit worthiness.

Nature of assistance

Turn Over	Fee to be reimbursed by Ministry of MSME
Up to Rs.50 lacs	75% of the fee charged by the rating agency subject to a ceiling
Above Rs.50 lacs to Rs.200 lacs	75% of the fee charged by the rating agency subject to a ceiling of Rs.30,0001-
Above Rs.200 lacs	75% of the fee charged by the rating agency subject to a ceiling of Rs.40,000/-

Who can apply?

Any enterprise registered in India as a micro or small enterprise is eligible to apply.

6. Marketing Assistance Scheme

Description

The assistance is provided for the following activities:

a. Organizing exhibitions abroad and participation in international exhibitions/trade fairs

 b. Co-sponsoring of exhibitions organized by other organisations/industry associations/ agencies

c. Organizing buyer-seller meets, intensive campaigns and marketing promotion events

Nature of assistance

Financial assistance of up to 95% of the airfare and space rent of entrepreneurs. Assistance is provided on the basis of size and the type of the enterprise. Financial assistance for co-sponsoring would be limited to 40% of the net expenditure, subject to maximum amount of Rs.5 lakh.

Who can apply?

MSMEs, Industry Associations and other organizations related to MSME sector.

7. Reimbursement of Registration Fee for Bar Coding

Description

The financial assistance is provided towards 75% reimbursement of only one-time registration fee and 75% of annual recurring fee for first three years paid by MSEs to GS1 India for using bar coding.

Nature of assistance

Funding support for reimbursement of 75% of one time and recurring bar code registration fees.

Who can apply?

All MSMEs with EM registration.

8. Enabling Participation of MSMEs in State/District Level Trade Fairs and Provide Funding Support

Description

Provide marketing platform to manufacturing MSMEs by enabling their participation in state/district level exhibitions being organized by state/district authorities/associations.

Nature of assistance

1. Free registration for participating in trade fairs

Note: *The selection of participants would be done by the MSME-DIs post the submission of application.*

2. Reimbursement of 50% of to and fro actual fare by shortest distance/direct train (limited to AC II tier class) from the nearest railway station/bus fare to the place of exhibition and 50% space rental charges for MSMEs (General category entrepreneurs).

3. For Women/SC/ST entrepreneurs & entrepreneurs from North Eastern Region Govt. of India will reimburse 80% of items listed above in Point (2).

Note: The total reimbursement will be max. Rs.30,000/- per unit for the SC/ST/Women/ Physically Handicapped entrepreneurs, while for the other units the max. limit will be Rs.20,000/- per person per MSME unit.

Note: *The participant is required to submit follow-up proofs post attending the event to claim reimbursement. The proofs can be submitted after logging in online under the section "My Applications" or directly contacting a DI office.*

Who can apply?

All MSMEs with EM registration.

9. Capital Subsidy Support on Credit for Technology Upgradation

Description

MSMEs can get a capital subsidy (~15%) on credit availed for technology upgradation.

Nature of assistance

Financial assistance for availing credit and loan.

Who can apply?

1. Banks and financial institutions can apply to DC-MSME for availing support.
2. MSMEs need to directly contact the respective banks for getting credit and capital subsidy.

How to apply?

If you are a financial institution, click on the "Apply Now" button or else you can also directly contact the Office of DC-MSME. You can view the contact details of Office of DC- MSME. If you are an MSME, directly contact the respective banks/financial institutions as listed in the scheme guidelines.

10. Provision of Collateral Free Credit for MSMEs

Description

Banks and financial institutions are provided funding assistance under this scheme so that they can in turn lend collateral free credit to MSMEs.

Nature of assistance

Funding support to banks and financial institutions for lending collateral-free credit to MSMEs.

Who can apply?

Banks and financial institutions can apply to office of DC-MSME/MSME-DIs for availing support. MSMEs need to directly contact the respective banks for getting credit.

11. Reimbursement of certification fees for acquiring ISO standards

ISO 9000/ISO 14001 Certification Reimbursement.

Description

The GoI assistance will be provided for one-time reimbursement of expenditure to such MSME manufacturing units which acquire ISO 18000/ISO 22000/ISO 27000 certification.

Nature of assistance

Reimbursement of expenditure incurred on acquiring ISO standards.

Who can apply?

MSMEs with EM registration.

12. Agricultural Marketing
Description

A capital investment subsidy for construction/renovation of rural godowns. Creation of scientific storage capacity and prevention of distress sale. **Nature of assistance**
Subsidy @ 25% to farmers, 15% of project cost to companies.

Who can apply

NGOs, SHGs, companies, co-operatives.

13. Small Agricultural Marketing
Description

Business development description provides venture capital assistance in the form of equity, and arranges training and visits of agri-preneurs

Farmers' Agriculture Business Consortium

Business development description provides venture capital assistance in the form of equity, and arranges training and visits of agri-preneurs.

Nature of assistance

Financial assistance with a ceiling of Rs.5 lakh.

Who can apply

Individuals, farmers, producer groups, partnership/propriety firms, SGHs, agri-preneurs, etc.

14. Mega Food Park
Description

Mechanism to link agricultural production and market to maximize value addition, enhance farmers income, create rural employment.

Nature of assistance

One-time capital grant of 50% of project cost with a limit of Rs.50 crore.

Who can apply

Farmers, farmer groups, SHGs.

15. Adivasi Mahila Sashaktikaran Yojana
Description

Concessional scheme for the economic development of ST women.

Nature of assistance

Term loan at concessional rates upto 90% of cost of scheme.

Who can apply

Scheduled Tribes Wome

Tips

- Research the existing market, network with other entrepreneurs, venture capitalists, angel investors, and thoroughly review the policies in place to enable your entrepreneurship.

- Failure is a stepping stone and not the end of the road. Review yours and your peers' errors and correct them in your future venture.

- Be proactive in your ecosystem. Identify the key features of your ecosystem and enrich them to ensure self-sustainability of your entrepreneurship support ecosystem.

5.5.7 Risk Appetite & Resilience: Entrepreneurship and Risk

Entrepreneurs are inherently risk takers. They are path-makers not path-takers. Unlike a normal, cautious person, an entrepreneur would not think twice about quitting his job (his sole income) and taking a risk on himself and his idea.

An entrepreneur is aware that while pursuing his dreams, assumptions can be proven wrong and unforeseen events may arise. He knows that after dealing with numerous problems, success is still not guaranteed. Entrepreneurship is synonymous with the ability to take risks. This ability, called risk-appetite, is an entrepreneurial trait that is partly genetic and partly acquired.

What is Risk Appetite

Risk appetite is defined as the extent to which a company is equipped to take risk, in order to achieve its objectives. Essentially, it refers to the balance, struck by the company, between possible profits and the hazards caused by changes in the environment (economic ecosystem, policies, etc.). Taking on more risk may lead to higher rewards but have a high probability of losses as well. However, being too conservative may go against the company as it can miss out on good opportunities to grow and reach their objectives.

The levels of risk appetite can be broadly categorized as "low", "medium" and "high." The company's entrepreneur(s) have to evaluate all potential alternatives and select the option most likely to succeed. Companies have varying levels of risk appetites for different objectives. The levels depend on:

- The type of industry

- Market pressures

- Company objectives

For example, a startup with a revolutionary concept will have a very high risk appetite. The startup can afford short term failures before it achieves longer term success. This type of

appetite will not remain constant and will be adjusted to account for the present circumstances of the company.

Risk Appetite Statement

Companies have to define and articulate their risk appetite in sync with decisions made about their objectives and opportunities. The point of having a risk appetite statement is to have a framework that clearly states the acceptance and management of risk in business. It sets risk taking limits within the company. The risk appetite statement should convey the following:

- The nature of risks the business faces.

- Which risks the company is comfortable taking on and which risks are unacceptable.

- How much risk to accept in all the risk categories.

- The desired tradeoff between risk and reward.

- Measures of risk and methods of examining and regulating risk exposures.

Entrepreneurship & Resilience

Entrepreneurs are characterized by a set of qualities known as resilience. These qualities play an especially large role in the early stages of developing an enterprise. Risk resilience is an extremely valuable characteristic as it is believed to protect entrepreneurs against the threat of challenges and changes in the business environment.

What is Entrepreneurship Resilience

Resilience is used to describe individuals who have the ability to overcome setbacks related to their life and career aspirations. A resilient person is someone who is capable of easily and quickly recovering from setbacks. For the entrepreneur, resilience is a critical trait. Entrepreneurial resilience can be enhanced in the following ways:

- By developing a professional network of coaches and mentors

- By accepting that change is a part of life

- By viewing obstacles as something that can be overcome

Characteristics of a Resilience Entrepreneur

The characteristics required to make an entrepreneur resilient enough to go the whole way in their business enterprise are:

- A strong internal sense of control
- Strong social connections
- Skill to learn from setbacks
- Ability to look at the bigger picture

- Ability to diversify and expand
- Survivor attitude
- Cash-flow conscious habits
- Attention to detail

Tips

- Cultivate a great network of clients, suppliers, peers, friends and family. This will not only help you promote your business, but will also help you learn, identify new opportunities and stay tuned to changes in the market.

- Don't dwell on setbacks. Focus on what the you need to do next to get moving again.

- While you should try and curtail expenses, ensure that it is not at the cost of your growth.

5.5.8 Success & Failures: Understanding Successes & Failures in Entrepreneurship

Shyam is a famous entrepreneur, known for his success story. But what most people don't know, is that Shyam failed numerous times before his enterprise became a success. Read his interview to get an idea of what entrepreneurship is really about, straight from an entrepreneur who has both, failed and succeeded.

Interviewer: Shyam, I have heard that entrepreneurs are great risk-takers who are never afraid of failing. Is this true?

Shyam: Ha ha, no of course it's not true! Most people believe that entrepreneurs need to be fearlessly enthusiastic. But the truth is, fear is a very normal and valid human reaction, especially when you are planning to start your own business! In fact, my biggest fear was the fear of failing. The reality is, entrepreneurs fail as much as they succeed. The trick is to not allow the fear of failing to stop you from going ahead with your plans. Remember, failures are lessons for future success!

Interviewer: What, according to you, is the reason that entrepreneurs fail?

Shyam: Well, there is no one single reason why entrepreneurs fail. An entrepreneur can fail due to numerous reasons. You could fail because you have allowed your fear of failure to defeat

you. You could fail because you are unwilling to delegate (distribute) work. As the saying goes, "You can do anything, but not everything!" You could fail because you gave up too easily – maybe you were not persistent enough. You could fail because you were focusing your energy on small, insignificant tasks and ignoring the tasks that were most important. Other reasons for failing are partnering with the wrong people, not being able to sell your product to the right customers at the right time at the right price… and many more reasons!

Interviewer: As an entrepreneur, how do you feel failure should be looked at?

Shyam: I believe we should all look at failure as an asset, rather than as something negative. The way I see it, if you have an idea, you should try to make it work, even if there is a chance that you will fail. That's because not trying is failure right there, anyway! And failure is not the worst thing that can happen. I think having regrets because of not trying, and wondering 'what if' is far worse than trying and actually failing.

Interviewer: How did you feel when you failed for the first time?

Shyam: I was completely heartbroken! It was a very painful experience. But the good news is, you do recover from the failure. And with every subsequent failure, the recovery process gets a lot easier. That's because you start to see each failure more as a lesson that will eventually help you succeed, rather than as an obstacle that you cannot overcome. You will start to realize that failure has many benefits.

Interviewer: Can you tell us about some of the benefits of failing?

Shyam: One of the benefits that I have experienced personally from failing is that the failure made me see things in a new light. It gave me answers that I didn't have before. Failure can make you a lot stronger. It also helps keep your ego in control.

Interviewer: What advice would you give entrepreneurs who are about to start their own enterprises?

Shyam: I would tell them to do their research and ensure that their product is something that is actually wanted by customers. I'd tell them to pick their partners and employees very wisely and cautiously. I'd tell them that it's very important to be aggressive – push and market your product as aggressively as possible. I would warn them that starting an enterprise is very

expensive and that they should be prepared for a situation where they run out of money.

I would tell them to create long term goals and put a plan in action to achieve that goal. I would tell them to build a product that is truly unique. Be very careful and ensure that you are not copying another startup. Lastly, I'd tell them that it's very important that they find the right investors.

Interviewer: That's some really helpful advice, Shyam! I'm sure this will help all entrepreneurs to be more prepared before they begin their journey! Thank you for all your insight!

Tips

- Remember that nothing is impossible.

- Identify your mission and your purpose before you start.

- Plan your next steps – don't make decisions hastily.

Unit 5.6: Preparing to be an Entrepreneur

Unit Objectives

At the end of this unit, you will be able to:

1. Discuss how market research is carried out
2. Describe the 4 Ps of marketing
3. Discuss the importance of idea generation
4. Recall basic business terminology
5. Discuss the need for CRM
6. Discuss the benefits of CRM
7. Discuss the need for networking
8. Discuss the benefits of networking
9. Discuss the importance of setting goals
10. Differentiate between short-term, medium-term and long-term goals
11. Discuss how to write a business plan
12. Explain the financial planning process
13. Discuss ways to manage your risk
14. Describe the procedure and formalities for applying for bank finance
15. Discuss how to manage your own enterprise
16. List important questions that every entrepreneur should ask before starting an enterprise

5.6.1 Market Study / The 4Ps of Marketing / Importance of an Idea: Understanding Market Research

Market research is the process of gathering, analyzing and interpreting market information on a product or service that is being sold in that market. It also includes information on:

• Past, present and prospective customers

• Customer characteristics and spending habits

• The location and needs of the target market

- The overall industry

- Relevant competitors

Market research involves two types of data:

- Primary information. This is research collected by yourself or by someone hired by you.

- Secondary information. This is research that already exists and is out there for you to find and use.

Primary research

Primary research can be of two types:

- Exploratory: This is open-ended and usually involves detailed, unstructured interviews.

- Specific: This is precise and involves structured, formal interviews.
  Conducting specific research is the more expensive than conducting
  exploratory research.

Secondary research

Secondary research uses outside information. Some common secondary sources are:

- Public sources: These are usually free and have a lot of good
  information. Examples are government departments, business
  departments of public libraries etc.

- Commercial sources: These offer valuable information but usually require a fee to be paid.
Examples are research and trade associations, banks and other financial institutions etc.

- Educational institutions: These offer a wealth of information.
  Examples are colleges, universities, technical institutes etc.

The 4Ps of Marketing

The 4 Ps of marketing are Product, Price, Promotion and Place. Let's look at each of these 4 Ps in detail.

Product

A product can be:

- A tangible good

- An intangible service

Whatever your product is, it is critical that you have a clear understanding of what you are offering, and what its unique characteristics are, before you begin with the marketing process.

Some questions to ask yourself are:

- What does the customer want from the product/service?

- What needs does it satisfy?

- Are there any more features that can be added?

- Does it have any expensive and unnecessary features?

- How will customers use it?

- What should it be called?

- How is it different from similar products?

- How much will it cost to produce?

- Can it be sold at a profit?

Price

Once all the elements of Product have been established, the Price factor needs to be considered. The Price of a Product will depend on several factors such as profit margins, supply, demand and the marketing strategy.

Some questions to ask yourself are:

- What is the value of the product/service to customers?

- Do local products/services have established price points?

- Is the customer price sensitive?

- Should discounts be offered?

- How is your price compared to that of your competitors?

Promotion

Once you are certain about your Product and your Price, the next step is to look at ways to promote it. Some key elements of promotion are advertising, public relations, social media marketing, email marketing, search engine marketing, video marketing and more.

Some questions to ask yourself are:

- Where should you promote your product or service?

- What is the best medium to use to reach your target audience?

- When would be the best time to promote your product?

- How are your competitors promoting their products?

Place

According to most marketers, the basis of marketing is about offering the right product, at the right price, at the right place, at the right time. For this reason, selecting the best possible location is critical for converting prospective clients into actual clients.

Some questions to ask yourself are:

- Will your product or service be looked for in a physical store, online or both?

- What should you do to access the most appropriate distribution channels?

- Will you require a sales force?

- Where are your competitors offering their products or services?

- Should you follow in your competitors' footsteps?

- Should you do something different from your competitors?

Importance of Ideas

Ideas are the foundation of progress. An idea can be small or ground-breaking, easy to accomplish or extremely complicated to implement. Whatever the case, the fact that it is an idea gives it merit. Without ideas, nothing is possible. Most people are afraid to speak out their ideas, out for fear of being ridiculed. However, if are an entrepreneur and want to remain competitive and innovative, you need to bring your ideas out into the light.

Some ways to do this are by:
- Establishing a culture of brainstorming where you invite all interested parties to contribute

- Discussing ideas out loud so that people can add their ideas, views, opinions to them

- Being open minded and not limiting your ideas, even if the idea who have seems ridiculous

- Not discarding ideas that you don't work on immediately, but instead making a note of them and shelving them so they can be revisited at a later date

Tips

- Keep in mind that good ideas do not always have to be unique.

- Remember that timing plays a huge role in determining the success of your idea.

- Situations and circumstances will always change, so be flexible and adapt your idea accordingly.

5.6.2 Business Entity Concepts: Basic Business Terminology

If your aim is to start and run a business, it is crucial that you have a good understanding of basic business terms. Every entrepreneur should be well versed in the following terms:

• Accounting: A systematic method of recording and reporting financial transactions.

• Accounts payable: Money owed by a company to its creditors.

• Accounts Receivable: The amount a company is owed by its clients.

• Assets: The value of everything a company owns and uses to conduct its business.

• Balance Sheet: A snapshot of a company's assets, liabilities and owner's equity at a given moment.

• Bottom Line: The total amount a business has earned or lost at the end of a month.

• Business: An organization that operates with the aim of making a profit.

• Business to Business (B2B): A business that sells goods or services to another business.

• Business to Consumer (B2C): A business that sells goods or services directly to the end user.

• Capital: The money a business has in its accounts, assets and investments. The two main types of capital are debt and equity.

• Cash Flow: The overall movement of funds through a business each month, including income and expenses.

• Cash Flow Statement: A statement showing the money that entered and exited a business during a specific period of time.

• Contract: A formal agreement to do work for pay.

• Depreciation: The degrading value of an asset over time.

• Expense: The costs that a business incurs through its operations.

• Finance: The management and allocation of money and other assets.

• Financial Report: A comprehensive account of a business' transactions and expenses.

• Fixed Cost: A one-time expense.

• Income Statement (Profit and Loss Statement): Shows the profitability of a business during a period of time.

• Liabilities: The value of what a business owes to someone else.

• Marketing: The process of promoting, selling and distributing a product or service.

• Net Income/Profit: Revenues minus expenses.

• Net Worth: The total value of a business.

- Payback Period: The amount of time it takes to recover the initial investment of a business.

- Profit Margin: The ratio of profit, divided by revenue, displayed as a percentage.

- Return on Investment (ROI): The amount of money a business gets as return from an investment.

- Revenue: The total amount of income before expenses are subtracted.

- Sales Prospect: A potential customer.

- Supplier: A provider of supplies to a business.

- Target Market: A specific group of customers at which a company's products and services are aimed.

- Valuation: An estimate of the overall worth of the business.

- Variable Cost: Expenses that change in proportion to the activity of a business.

- Working Capital: Calculated as current assets minus current liabilities.

- Business Transactions: There are three types of business transactions. These are:

  Simple Transactions – Usually a single transaction between a vendor and a customer. For example: Buying a cup of coffee.

  Complex Transactions – These transactions go through a number of events before they can be completed. For example: Buying a house.

  Ongoing transactions – These transactions usually require a contract. For example: Contract with a vendor.

Basic Accounting Formulas

Take a look some important accounting formulas that every entrepreneur needs to know.

1. **The Accounting Equation:** This is value of everything a company owns and uses to conduct its business.

Formula:

Assets = Liability + Owner's Equity

2. **Net Income**: This is the profit of the company.

Formula:
Net Income = Revenues – Expenses

3. **Break-Even Point:** This is the point at which the company will not make a profit or a loss. The total cost and total revenues are equal.

Formula:
Break-Even = Fixed Costs/Sales Price – Variable Cost per Unit

4. **Cash Ratio**: This tells us about the liquidity of a company.

Formula:
Cash Ratio = Cash/Current Liabilities

5. **Profit Margin:** This is shown as a percentage. It shows what percentage of sales are left over after all the expenses are paid by the business.

Formula:
Profit Margin = Net Income/Sales

6. **Debt-to-Equity Ratio:** This ratio shows how much equity and debt a company is using to finance its assets, and whether the shareholder equity can fulfill obligations to creditors if the business starts making a loss.

Formula:
Debt-to-Equity Ratio = Total Liabilities/Total Equity

7. **Cost of Goods Sold**: This is the total of all costs used to create a product or service, which has been sold.

Formula:
Cost of Goods Sold = Cost of Materials/Inventory – Cost of Outputs

8. **Return on Investment (ROI):** This is usually shown as a percentage. It calculates the profits of an investment as a percentage of the original cost.

Formula:

ROI = Net Profit/Total Investment * 100

9. **Simple Interest:** This is money you can earn by initially investing some money (the principal).

Formula:

A = P(1 + rt); R = r * 100

Where:

A = Total Accrued Amount (principal + interest) P = Principal Amount
I = Interest Amount

r = Rate of Interest per year in decimal; r = R/100 t = Time Period involved in months or years
10. **Annual Compound Interest:** The calculates the addition of interest to the principal sum of a loan or deposit.

Formula:

A = P (1 + r/n) ^ nt: Where:
A = the future value of the investment/loan, including interest

P = the principal investment amount (the initial deposit or loan amount)

r = the annual interest rate (decimal)

n = the number of times that interest is compounded per year

t = the number of years the money is invested or borrowed

for

5.6.3 CRM & Networking: What is CRM

CRM stands for Customer Relationship Management. Originally the expression Customer Relationship Management meant managing one's relationship with customers. However, today it refers to IT systems and software designed to help companies manage their relationships.

The Need for CRM

The better a company can manage its relationships with its customers, the higher the chances of the company's success. For any entrepreneur, the ability to successfully retain existing customers and expand the enterprise is paramount. This is why IT systems that focus on addressing the problems of dealing with customers on a daily basis are becoming more and more in demand.

Customer needs change over time, and technology can make it easier to understand what customers really want. This insight helps companies to be more responsive to the needs of their customers. It enables them to modify their business operations when required, so that their customers are always served in the best manner possible. Simply put, CRM helps companies recognize the value of their clients and enables them to capitalize on improved customer relations.

Benefits of CRM

CRM has a number of important benefits:

• It helps improve relations with existing customers which can lead to:

‒ Increased sales

‒ Identification of customer needs

‒ Cross-selling of products

• It results in better marketing of one's products or services

- It enhances customer satisfaction and retention

- It improves profitability by identifying and focusing on the most profitable customers

What is Networking

In business, networking means leveraging your business and personal connections in order to bring in a regular supply of new business. This marketing method is effective as well as low cost. It is a great way to develop sales opportunities and contacts. Networking can be based on referrals and introductions, or can take place via phone, email, and social and business networking websites.

The Need for Networking

Networking is an essential personal skill for business people, but it is even more important for entrepreneurs. The process of networking has its roots in relationship building. Networking results in greater communication and a stronger presence in the entrepreneurial ecosystem. This helps build strong relationships with other entrepreneurs.

Business networking events held across the globe play a huge role in connecting like-minded entrepreneurs who share the same fundamental beliefs in communication, exchanging ideas and converting ideas into realities. Such networking events also play a crucial role in connecting entrepreneurs with potential investors. Entrepreneurs may have vastly different experiences and backgrounds but they all have a common goal in mind – they all seek connection, inspiration, advice, opportunities and mentors. Networking offers them a platform to do just that.

Benefits of Networking

Networking offers numerous benefits for entrepreneurs. Some of the major benefits are:

- Getting high quality leads

- Increased business opportunities

- Good source of relevant connections

- Advice from like-minded entrepreneurs

- Gaining visibility and raising your profile

- Meeting positive and enthusiastic people

- Increased self-confidence

- Satisfaction from helping others

- Building strong and lasting friendships

Tips

- Use social media interactions to identify needs and gather feedback.

- When networking, ask open-ended questions rather than yes/no type questions.

5.6.4 Business Plan: Why Set Goals

Setting goals is important because it gives you long-term vision and short-term motivation. Goals can be short term, medium term and long term.

Short-Term Goals

- These are specific goals for the immediate future.

Example: Repairing a machine that has failed.

Medium-Term Goals

- These goals are built on your short term goals.

- They do not need to be as specific as your short term goals.

Example: Arranging for a service contract to ensure that your machines don't fail again.

Long-Term Goals

These goals require time and planning.

They usually take a year or more to achieve.

Example: Planning your expenses so you can buy new machinery

Why Create a Business Plan

A business plan is a tool for understanding how your business is put together. It can be used to monitor progress, foster accountable and control the fate of the business. It usually offers a 3-5 year projection and outlines the plan that the company intends to follow to grow its revenues. A business plan is also a very important tool for getting the interest of key employees or future investors.

A business plan typically comprises of eight elements.

Elements of a Business Plan

Executive Summary

The executive summary follows the title page. The summary should clearly state your desires as the business owner in a short and businesslike way. It is an overview of your business and your plans. Ideally this should not be more than 1-2 pages.

Your Executive Summary should include:

•   The Mission Statement: Explain what your business is all about.

Example: Nike's Mission Statement

Nike's mission statement is "To bring inspiration and innovation to every athlete in the world."

• Company Information: Provide information like when your business was formed, the names and roles of the founders, the number of employees, your business location(s) etc.

• Growth Highlights: Mention examples of company growth. Use graphs and charts where possible.

• Your Products/Services: Describe the products or services provided.

• Financial Information: Provide details on current bank and investors.

• Summarize future plans: Describe where you see your business in the future.

Business Description

The second section of your business plan needs to provide a detailed review of the different elements of your business. This will help potential investors to correctly understand your business goal and the uniqueness of your offering.

Your Business Description should include:

•   A description of the nature of your business

•   The market needs that you are aiming to satisfy

•   The ways in which your products and services meet these needs

•   The specific consumers and organizations that you intend to serve

•   Your specific competitive advantages

Market Analysis

The market analysis section usually follows the business description. The aim of this section is to showcase your industry and market knowledge. This is also the section where you should lay down your research findings and conclusions.

Your Market Analysis should include:

•   Your industry description and outlook

•   Information on your target market

•   The needs and demographics of your target audience

- The size of your target market

- The amount of market share you want to capture

- Your pricing structure

- Your competitive analysis

- Any regulatory requirements

Organization & Management

This section should come immediately after the Market Analysis. Your Organization & Management section should include:

- Your company's organizational structure

- Details of your company's ownership

- Details of your management team

- Qualifications of your board of directors

- Detailed descriptions of each division/department and its function

- The salary and benefits package that you offer your people

- The incentives that you offer

Service or Product Line

The next section is the service or product line section. This is where you describe your service or product, and stress on their benefits to potential and current customers. Explain in detail why your product of choice will fulfill the needs of your target audience.

Your Service or Product Line section should include:

- A description of your product/service

- A description of your product or service's life cycle

- A list of any copyright or patent filings

- A description of any R&D activities that you are involved in or planning

Marketing & Sales

Once the Service or Product Line section of your plan has been completed, you should start on the description of the marketing and sales management strategy for your business.

Your Marketing section should include the following strategies:

- **Market penetration strategy**: This strategy focuses on selling your existing products or services in existing markets, in order to increase your market share.

- **Growth strategy**: This strategy focuses on increasing the amount of market share, even if it reduces earnings in the short-term.

- **Channels of distribution strategy**: These can be wholesalers, retailers, distributers and even the internet.

- **Communication strategy:** These can be written strategies (e-mail, text, chat), oral strategies (phone calls, video chats, face-to-face conversations), non-verbal strategies (body language, facial expressions, tone of voice) and visual strategies (signs, webpages, illustrations).

Your Sales section should include the following information:

- **A salesforce strategy**: This strategy focuses on increasing the revenue of the enterprise.

- **A breakdown of your sales activities**: This means detailing out how you intend to sell your products or services – will you sell it offline or online, how many units do you intend to sell, what price do you plan to sell each unit at, etc.

Funding Request

This section is specifically for those who require funding for their venture. The Funding Request section should include the following information:

- How much funding you currently require.

- How much funding you will require over the next five years. This will depend on your long-term goals.

- The type of funding you want and how you plan to use it. Do you want funding that can be used only for a specific purpose, or funding that can be used for any kind of requirement?

- Strategic plans for the future. This will involve detailing out your long-term plans – what these plans are and how much money you will require to put these plans in motions.

- Historical and prospective financial information. This can be done by creating and maintaining all your financial records, right from the moment your enterprise started, to the present day. Documents required for this are your balance sheet which contains details of your company's assets and liabilities, your income statement which lists your company's revenues, expenses and net income for the year, your tax returns (usually for the last three years) and your cash flow budget which lists the cash that came in, the cash that went out and states whether you had a cash deficit (negative balance) or surplus (positive balance) at the end of each month.

Financial Planning

Before you begin building your enterprise, you need to plan your finances. Take a look at the steps for financial planning:

Step 1: Create a financial plan. This should include your goals, strategies and timelines for accomplishing these goals.

Step 2: Organize all your important financial documents. Maintain a file to hold your investment details, bank statements, tax papers, credit card bills, insurance papers and any

other financial records.

Step 3: Calculate your net worth. This means figure out what you own (assets like your house, bank accounts, investments etc.), and then subtract what you owe (liabilities like loans, pending credit card amounts etc.) the amount you are left with is your net worth.

Step 4: Make a spending plan. This means write down in detail where your money will come from, and where it will go.

Step 5: Build an emergency fund. A good emergency fund contains enough money to cover at least 6 months' worth of expenses.

Step 6: Set up your insurance. Insurance provides long term financial security and protects you against risk.

Risk Management

As an entrepreneur, it is critical that you evaluate the risks involved with the type of enterprise that you want to start, before you begin setting up your company. Once you have identified potential risks, you can take steps to reduce them. Some ways to manage risks are:

- Research similar business and find out about their risks and how they were minimized.
- Evaluate current market trends and find out if similar products or services that launched a while ago are still being well received by the public.
- Think about whether you really have the required expertise to launch your product or service.
- Examine your finances and see if you have enough income to start your enterprise.
- Be aware of the current state of the economy, consider how the economy may change over time, and think about how your enterprise will be affected by any of those changes.
- Create a detailed business plan.

Tips

- Ensure all the important elements are covered in your plan.

- Scrutinize the numbers thoroughly.

- Be concise and realistic.

- Be conservative in your approach and your projections.

- Use visuals like charts, graphs and images wherever possible.

5.6.5 Procedure and Formalities for Bank Finance: The Need fo Bank Finance

For entrepreneurs, one of the most difficult challenges faced involves securing funds for startups. With numerous funding options available, entrepreneurs need to take a close look at which funding methodology works best for them. In India, banks are one of the largest funders of startups, offering funding to thousands of startups every year.

What Information Entrepreneurs Offer Banks for Funding

When approaching a bank, entrepreneurs must have a clear idea of the different criteria that banks use to screen, rate and process loan applications. Entrepreneurs must also be aware of the importance of providing banks with accurate and correct information. It is now easier than ever for financial institutions to track any default behaviour of loan applicants. Entrepreneurs looking for funding from banks must provide banks with information relating to their general credentials, financial situation and guarantees or collaterals that can be offered.

General Credentials

This is where you, as an entrepreneur, provide the bank with background information on yourself. Such information includes:

• Letter(s) of Introduction: This letter should be written by a respected business person who knows you well enough to introduce you. The aim of this letter is set across your achievements and vouch for your character and integrity.

• Your Profile: This is basically your resume. You need to give the bank a good idea of your educational achievements, professional training, qualifications, employment record and achievements.

• Business Brochure: A business brochure typically provides information on company products, clients, how long the business has been running for etc.

• Bank and Other References: If you have an account with another bank, providing those bank references is a good idea.

• Proof of Company Ownership or Registration: In some cases, you may need to provide the bank with proof of company ownership and registration. A list of assets and liabilities may also be required.

Financial Situation

Banks will expect current financial information on your enterprise. The standard financial reports you should be prepared with are:

• Balance Sheet	• Profit-and-Loss Account
• Cash-Flow Statement	• Projected Sales and Revenues

- Business Plan
- Feasibility Study

Guarantees or Collaterals

Usually banks will refuse to grant you a loan without security. You can offer assets which the bank can seize and sell off if you do not repay the loan. Fixed assets like machinery, equipment, vehicles etc. are also considered to be security for loans

The Lending Criteria of Banks

Your request for funding will have a higher chance of success if you can satisfy the following lending criteria:

- Good cash flow
- Adequate shareholders' funds
- Adequate security
- Experience in business
- Good reputation

The Procedure

To apply for funding the following procedure will need to be followed.

1. Submit your application form and all other required documents to the bank.

2. The bank will carefully assess your credit worthiness and assign ratings by analyzing your business information with respect to parameters like management, financial, operational and industry information as well as past loan performance.

3. The bank will make a decision as to whether or not you should be given funding.

Tips

- Get advice on funding options from experienced bankers.
- Be cautious and avoid borrowing more than you need, for longer than you need, at an interest rate that is higher than you are comfortable with.

5.6.6 Enterprise Management – An Overview of How to Manage an Enterprise

To manage your enterprise effectively you need to look at many different aspects, right from managing the day-to-day activities to figuring out how to handle a large scale event. Let's take a look at some simple steps to manage your company effectively.

Step 1: Use your leadership skills and ask for advice when required.

Let's take the example of Ramu, an entrepreneur who has recently started his own enterprise. Ramu has good leadership skills – he is honest, communicates well, knows how to delegate work etc. These leadership skills definitely help Ramu in the management of his enterprise. However, sometimes Ramu comes across situations that he is unsure how to handle. What should Ramu do in this case? One solution is for him to find a more experienced manager who is willing to mentor him. Another solution is for Ramu to use his networking skills so that he can connect with managers from other organizations, who can give him advice on how to handle such situations.

Step 2: Divide your work amongst others – realize that you cannot handle everything yourself.

Even the most skilled manager in the world will not be able to manage every single task that an enterprise will demand of him. A smart manager needs to realize that the key to managing his enterprise lies in his dividing all his work between those around him. This is known as delegation. However, delegating is not enough. A manager must delegate effectively if he wants to see results. This is important because delegating, when done incorrectly, can result in you creating even more work for yourself. To delegate effectively, you can start by making two lists. One list should contain the things that you know you need to handle yourself. The second list should contain the things that you are confident can be given to others to manage and handle. Besides incorrect delegation, another issue that may arise is over-delegation. This means giving away too many of your tasks to others. The problem with this is, the more tasks you delegate, the more time you will spend tracking and monitoring the work progress of those you have handed the tasks to. This will leave you with very little time to finish your own work.

Step 3: Hire the right people for the job.

Hiring the right people goes a long way towards effectively managing your enterprise. To hire the best people suited for the job, you need to be very careful with your interview process. You should ask potential candidates the right questions and evaluate their answers carefully. Carrying out background checks is always a good practice. Running a credit check is also a good idea, especially if the people you are planning to hire will be handling your money. Create a detailed job description for each role that you want filled and ensure that all candidates have a clear and correct understanding of the job description. You should also have an employee manual in place, where you

put down every expectation that you have from your employees. All these actions will help ensure that the right people are approached for running your enterprise.

Step 4: Motivate your employees and train them well.

Your enterprise can only be managed effectively if your employees are motivated to work hard for your enterprise. Part of being motivated involves your employees believing in the vision and mission of your enterprise and genuinely wanting to make efforts towards pursuing the same. You can motivate your employees with recognition, bonuses and rewards for achievements. You can also motivate them by telling them about how their efforts have led to the company's success. This will help them feel pride and give them a sense of responsibility that will increase their motivation.

Besides motivating your people, your employees should be constantly trained in new practices and technologies. Remember, training is not a one-time effort. It is a consistent effort that needs to be carried out regularly.

Step 5: Train your people to handle your customers well.

Your employees need to be well-versed in the art of customer management. This means they should be able to understand what their customers want, and also know how to satisfy their needs. For them to truly understand this, they need to see how you deal effectively with customers. This is called leading by example. Show them how you sincerely listen to your clients and the efforts that you put into understand their requirements. Let them listen to the type of questions that you ask your clients so they understand which questions are appropriate.

Step 6: Market your enterprise effectively.

Use all your skills and the skills of your employees to market your enterprise in an effective manner. You can also hire a marketing agency if you feel you need help in this area.

Now that you know what is required to run your enterprise effectively, put these steps into play, and see how much easier managing your enterprise becomes!

Tips

- Get advice on funding options from experienced bankers.

- Be cautious and avoid borrowing more than you need, for longer than you need, at an interest rate that is higher than you are comfortable with.

5.6.7: 20 Questions to Ask Yourself Before Considering Entrepreneurship

1. Why am I starting a business?
2. What problem am I solving?
3. Have others attempted to solve this problem before? Did they succeed or fail?
4. Do I have a mentor[1] or industry expert that I can call on?

5. Who is my ideal customer[2]?

6. Who are my competitors[3]?

7. What makes my business idea different from other business ideas?

8. What are the key features of my product or service?

9. Have I done a SWOT[4] analysis?

10. What is the size of the market that will buy my product or service?

11. What would it take to build a minimum viable product[5] to test the market?

12. How much money do I need to get started?

13. Will I need to get a loan?

14. How soon will my products or services be available?

15. When will I break even[6] or make a profit?

16. How will those who invest in my idea make a profit?

17. How should I set up the legal structure[7] of my business?

18. What taxes[8] will I need to pay?

19. What kind of insurance[9] will I need?

20. Have I reached out to potential customers for feedback?

Tips

- It is very important to validate your business ideas before you invest significant time, money and resources into it.

- The more questions you ask yourself, the more prepared you will be to handle to highs and lows of starting an enterprise.

Footnotes:

1. A mentor is a trusted and experienced person who is willing to coach and guide you.

2. A customer is someone who buys goods and/or services.

3. A competitor is a person or company that sells products and/or services similar to your products and/or services.

4. SWOT stands for Strengths, Weaknesses, Opportunities and Threats. To conduct a SWOT analysis of your company, you need to list down all the strengths and weaknesses of your company, the opportunities that are present for your company and the threats faced by your company.

5. A minimum viable product is a product that has the fewest possible

features, that can be sold to customers, for the purpose of getting feedback from customers on the product.

6.   A company is said to break even when the profits of the company are equal to the costs.

7.   The legal structure could be a sole proprietorship, partnership or limited liability partnership.

8.   There are two types of taxes – direct taxes payable by a person or a company, or indirect taxes charged on goods and/or services.

9.   There are two types of insurance – life insurance and general insurance. Life insurance covers human life while general insurance covers assets like animals, goods, cars etc
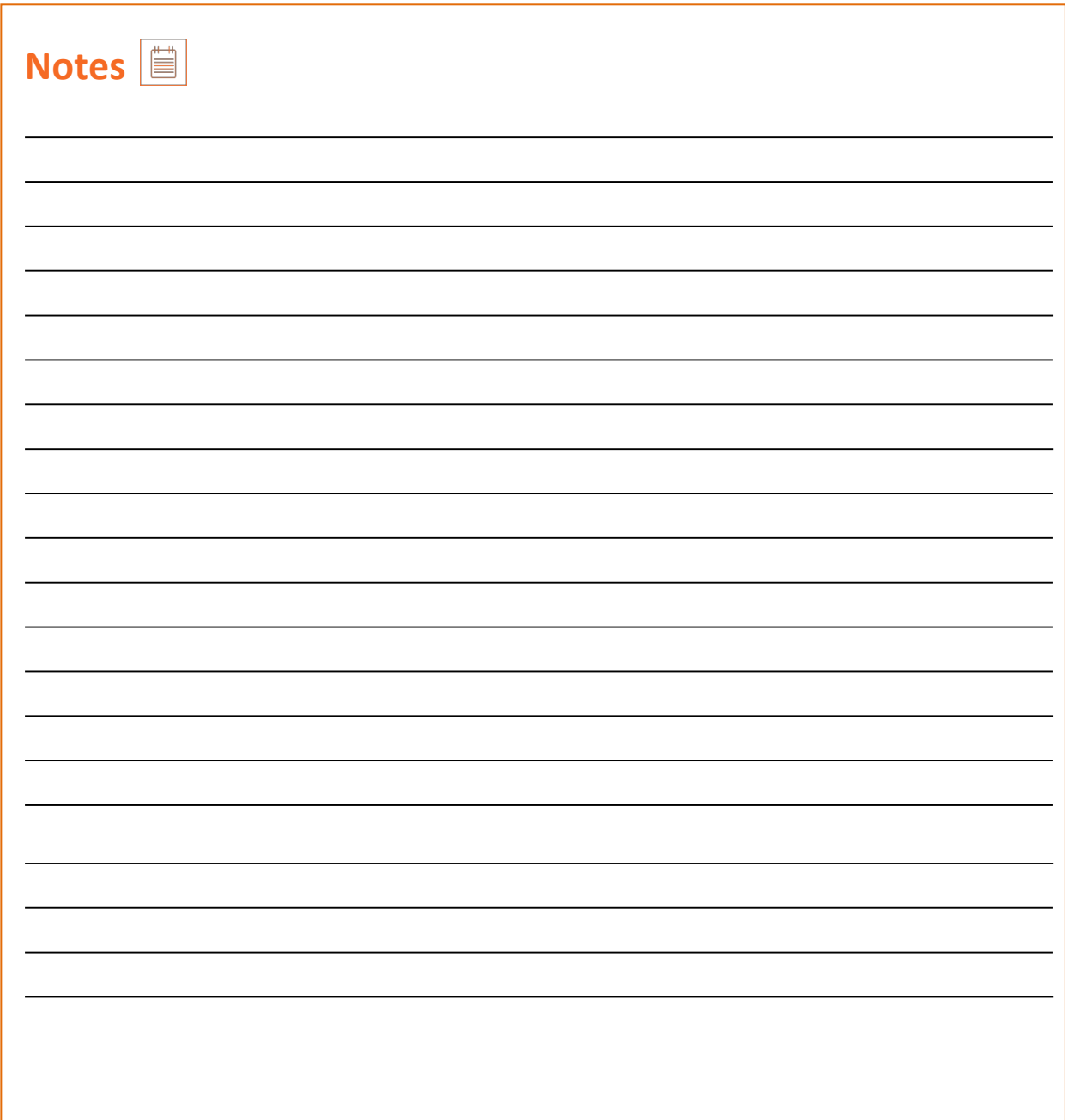
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