



BASIC COMPUTER COURSE(BCC)

E-BOOK

| S.No | Index | Page No |
|-------------|--|----------------|
| 1 | Knowing Computer | 3 |
| 2 | Operating computer using GUI based operating system | 25 |
| 3 | Understanding Word Processing | 44 |
| 4 | Using Spreadsheet | 68 |
| 5 | Communication Using the Internet | 83 |
| 6 | WWW and Web browser | 100 |
| 7 | Communication and Collaboration | 112 |
| 8 | Making Small Presentation | 125 |

UNIT - 1

Knowing Computer

What is Computer System?

- A computer system is an electronic data processing device which can read and write, compute and compare, store and process large volume of data with high speed, accuracy and reliability.
- A computer system has several components like Keyboard, Mouse, Processor, Memory, Monitor etc.
- The basic Organization of a computer system includes the following:
 - Input Unit: The data is entered using an input device such as a Keyboard or a Mouse.
 - Processing Unit: The computer system processes the data according to a set of instructions called Program.
 - Output: The computer system returns the processed information in the form of output that can either be printed or displayed on the output devices like Printer or Monitor.
 - Memory: The computer system saves the data and the instructions in the memory for further retrieval.

Basic Applications of Computer System

- Computers systems have a wide range of use in almost every field of our life.
- They are specially used in the following fields:
 - Office Use
 - ❖ The work done in offices is mostly the preparation of letters, reports, memoranda, copy of advertisement, publicity, minutes, contracts, forms, notes etc.
 - ❖ This can be done through computer system in most efficient manner.
 - Data analysis
 - ❖ You can analyze the data through special software called spreadsheet programs.
 - ❖ You can also prepare the product sales, profits and investment reports.
 - ❖ You can also sort, merge and manipulate data (as needed) by accepting the data from other files.
 - Accounting and Investment Analysis
 - ❖ Accounting Programs are used for data entry, billing, inventory control, Sales Analysis.
 - ❖ Software packages for such analysis are available at a nominal price. Example: MS-Office Suite supported by Microsoft Corporation.
 - Graphics and Animation
 - ❖ Computers system can be used to make drawings, graphics and movies.
 - ❖ CorelDraw, Illustrator, Visio 2000 and Free Lance plus for Windows are some such software packages, which can help you in increasing your drawing capability.
 - Education
 - ❖ In educational institutions computers system are used as teaching aid, research tool and analyzing system.
 - ❖ When computer system is used as a teaching and learning aid it is referred to as computer-assisted instruction (CAI) or Computer Assisted Learning (CAL).
 - Banks
 - ❖ Banks use computer systems to provide online service to customers and to answer customer queries regarding their bank balance etc.
 - ❖ To handle cash, banks use cash dispensing machines (Asynchronous Transfer Mode (ATM)).
 - ❖ With the use of computer systems, electronic transfer of funds from one account to

another has become possible.

➤ Airlines and Railway Ticket Reservation

- ❖ Indian Railways have computerized ticket reservation in almost all important railway stations.
- ❖ The computer system stores all necessary information required for ticket processing such as
 - ❖ Train number,
 - ❖ Stations,
 - ❖ Distance between stations,
 - ❖ Number of seats available in each train for each class,
 - ❖ Train fare etc.
- ❖ The computer system can also give information regarding train timings, fares etc. On telephone enquiry.

➤ E-mailing

- ❖ Electronic mail (E-mail) is a system whereby through computer system users can exchange messages, greetings etc. with each other via Internet, at a very cheap rate.
- ❖ E-mail allows you to create, send, receive and store messages.
- ❖ You can send mail to individuals or groups with a single click.

Components of Computer System

- The main components of a computer system are:
 - Central Processing Unit.
 - Input Devices/media.
 - Output Devices/media.
- Some special purpose devices and media are also available.

Central Processing Unit

- The CPU is also called the brain of the computer system.
- Its basic function is to perform calculations and various logical operations.
- It consists of three parts:-
 - Control Unit
 - Arithmetic and Logic Unit (ALU)
 - Memory or Storage

Control Unit

- Consists of electronic circuits.
- Selects, interprets and executes instructions.
- Governs input/output (I/O) operations,
- Data transfer to and from storage and
- Guides the routing of data between storage location and the arithmetic logic unit.

Arithmetic and Logic Unit (ALU)

- Comprises of electronic circuits.
- Performs calculations and comparisons.
- Works at tremendous speed and executes millions of instructions per second (MIPS).

Memory or Storage

- Also called internal storage or main memory or random access memory (RAM).
- Consists of very fast memories like magnetic core memory or semiconductor memory.
- Stores program instructions or part of data for immediate need.

- Data is stored in a computer system memory in the form of words, bytes and bits.

Keyboard

- Keyboard is an input device.
- Computer system keyboard is an electromechanical component designed to create special standardized electronic codes when a key is pressed.
- Keyboards come in a variety of sizes and shapes.
- Most keyboards having a number of features in common:
 - Standard Typewriter keys.
 - Function keys.
 - Special purpose keys.
 - Cursor Movement keys 5. Numeric keys.

Mouse

- The mouse is also an input device that is much in use in graphics as well as when working with a GUI (Graphic User Interface).
- When a mouse is slid across a flat surface, the screen cursor also moves in the direction of the movement of the mouse.
- With a click of the button, the system can be notified of the selected position.

VDU

- Visual Display Unit is the most popular I/O device used nowadays for interactive processing.
- A keyboard is used to enter data into a processor and a Video Display Unit, called Monitor.
- It is used to display the keyed in data.
- It also receives received processed information and messages from the computer system.

Other Input/Output devices

Other Input devices: MICR

- Magnetic ink character recognition devices were developed to assist the banking industry.
- It is used in the processing of cheques.
- The most commonly used character set by MICR devices is known as E13B font that consists of numerals 0-9, and 4 special characters.

Scanners

- These are basically input devices that are capable of recognizing marks or characters.
- They are used for direct entry of data into the computer system.
- Different types of scanners are:
 - OCR,
 - OMR,
 - Bar Code Reader,
 - Desk scanning.

Optical Character Reader (OCR)

- These are scanner devices that are capable of detecting alphabetic and numeric characters by comparing the shapes with internally stored patterns.
- These are expensive and are used only for large-volume processing applications e.g. by credit-card companies.

OMR

- These scanners are capable of recognizing a pre-specified type of mark made by a pencil.
- These are normally used for validation of input documents, evaluating answer-sheets in objective-type tests e.g. GRE, GMAT.

Bar Code Reader

- Data coded in the form of light and dark lines or bars are known as bar codes.
- Bar codes are used particularly by the retail trade for labeling goods.
- Bar code reader is a device used for reading bar code data which is performed by laser beam scanner which is linked to a computer system.

Desk Scanning

- The scanning process involves application of the light source to the image.
- The light is reflected back from the image into the scanner optics where the varying levels of light are interpreted.
- The image is then reconstructed digitally and displayed on the screen.

Touch Screen

- It is a computer system screen designed or modified to recognize the location of a touch on its surface.
- By touching the screen, the user can make a selection or move a cursor.
- The simplest type of touch screen is made up of a grid of sensing lines, which determine the location of a touch by matching vertical and horizontal contacts.

Light Pen

- A light pen is a pointing device.
- It is used to select a displayed menu option on the monitor.
- It is a photosensitive pen like device.
- It is capable of sensing a position on the CRT screen when its tip touches the screen.

Other Output devices: Printers

- Printers are primary output devices used to prepare permanent documents for human use.
- Printers are classified as:
 - Impact printers.
 - ❖ Letter Quality Printer.
 - ❖ Line Printer.
 - Non-Impact printers.

Impact Printers

- These operate like a typewriter, pressing a typeface against paper and inked ribbon.
- E.g. daisy-wheel printer, dot-matrix printer.
- Letter Quality Printer:
 - These are also called character printers or serial printers because they print one character at a time.
 - They produce a very high quality print image (one that is very clear and precise) because the

entire character is formed with a single impact such as a Daisy Wheel Printer or a Dot Matrix Printer.

- Line printers
 - These are high speed printers, which cater to huge volumes of output requirements of large computer system organizations.
 - These are known as Line printers because they use impact methods to produce one line at-a-time printed output. E.g. chain printer, band printer, drum printer.

Non-Impact Printers

- These printers use thermal, electrostatic, chemical and inkjet technologies.
- Thermal Printers
 - These printers use heat to produce an image on special paper.
 - No ribbon or ink is involved. For users who want the highest-quality desktop color printing, thermal printers are the answer.
 - The print mechanism, is designed to heat the surface of chemically treated paper so that a dot is produced based on the reaction of the chemical to the heat.
- Ink Jet printer.
 - The ink jet printer ejects a steady stream of ink drop towards the printed page.
 - The drops are selectively discarded by electrostatic attraction to leave only those that are needed to form the desired symbol.
 - Those that are not needed are captured in a tiny gutter & filtered to remove impurities.
 - They are then re-circulated through the drop-generating mechanism.
- Laser Printer
 - This printer is much less mechanical than impact printer (that is, no print heads move, no print hammers hit). resulting in much higher speeds and quieter operation.
 - The process resembles the operation of a photocopy machine.
 - The major advantages of laser printers are:
 - ❖ Very high speed.
 - ❖ Low noise level.
 - ❖ Low maintenance requirements.
 - ❖ Very high image quality.
 - Excellent graphics capabilities.

❖ Display Devices

- This is one of the most important Peripheral devices in the computer system.
- The following different kinds of display devices are available:
 - Liquid crystal Display(LCD):
 - ❖ Earlier LCDs were used commonly in watches and clocks.
 - ❖ But nowadays LCD technology is used to manufacture LCD display devices for computer systems.
 - ❖ The major advantage of LCD is the low energy consumption.
 - ❖ They also have color capability but the image quality is relatively poor.
 - Projection Displays
 - ❖ A large screen upon which images are projected replaces a personal size of the previous displays.
 - ❖ These systems can be connected to computer system and whatever appears on the computer system terminal gets enlarged and projected on a large screen.
 - ❖ Another method is to connect a computer system to an LCD Flat screen and to project the LCD Image using Overhead projector.
 - ❖ These are popularly used for seminars, classroom lectures and presentations etc.

Memory Location

- Memory of the computer system is divided into small parts called locations.
- Each location has a unique address.
- Location is further subdivided into bits.
- Different computer systems have a different location size varying from 8 to 64 bits.

Computer Memory

- Bit
 - Bit stands for one binary digit, which is either 0 or 1.
- Byte
 - Number of consecutive bits combines to make a byte.
 - Most commonly used combination is of 8 bits.
 - Size of main memory is given in Kilobytes (KB), Megabytes (MB) and Gigabytes (GB).
 - Primary Storage / Internal Memory / Main Memory.
 - The main memory, also called random access memory (RAM) is the work area of the computer system.
 - It stores program instructions or part of data for immediate needs.
 - The storage capacity of RAM is limited.
 - A typical modern computer system can have a RAM size of 32MB or 64MB or greater up to 8GB or more.
 - It is volatile memory of the computer system and when the power goes, the contents stored in RAM are lost.
 - RAM can be classified as DRAM (Dynamic RAM) or SRAM (Static RAM).
 - SRAM (Static RAM):
 - ❖ SRAM (static RAM) is random access memory (RAM) that retains data bits in its memory as long as power is being supplied.
 - ❖ Unlike dynamic RAM (DRAM), which stores bits in cells consisting of a capacitor and a transistor, SRAM does not have to be periodically refreshed.
 - ❖ Static RAM provides faster access to data and is more expensive than DRAM. SRAM is used for a computer's cache memory and as part of the random access memory digital-to-analog converter on a video card.

➤ DRAM:

- ❖ Dynamic random access memory (DRAM) is the most common kind of random access memory (RAM) for personal computers and workstations.
- ❖ The network of electrically-charged points in which a computer stores quickly accessible data in the form of 0s and 1s is called memory.
- ❖ Random access means that the PC processor can access any part of the memory directly rather than having to proceed sequentially from some starting place.
- ❖ DRAM is dynamic in that, unlike static RAM (SRAM), it needs to have its storage cells refreshed or given a new electronic charge every few milliseconds.
- ❖ Static RAM does not need refreshing because it operates on the principle of moving current that is switched in one of two directions rather than a storage cell that holds a charge in place. Static RAM is generally used for cache memory, which can be accessed more quickly than DRAM.

Secondary Storage

- The secondary storage devices are used to store programs and data on a permanent basis.
- Their storage capacity is much higher compared to main memory of the computer system.
- Secondary Storage devices accept data or program instructions from the processor retain them and then write them back to the processor as and when needed.
- The examples of secondary storage devices are Hard Disk, Magnetic tapes, and Pen drives etc.
- Hard Disk
 - These are specific kind of storage devices that cannot be removed and are fixed inside the computer system.
 - That is why these are also called as fixed disks and store programs permanently.
 - The storage capacities of the disks that are used these days are having Gigabytes of storage and these are faster in comparison to Floppy disks.
- Magnetic Tape
 - This is also a magnetic media which stores data sequentially in them.
 - Though they provide unlimited storage capacity they suffer from a very serious problem.
 - Since the data stored in them is sequential in nature, retrieval of data takes a very long time.
 - These are used for archival backup storage.
- CD-ROM
 - Compact disk, read-only memory optical disks have a very large storage density and the

access time is relatively low.

- Digital Versatile Disc
 - Digital Versatile Disc is in genre of optical discs with same overall dimension of CDs but much higher capacity.
 - These can store at least 7 times more data than CD ROM.
 - Static Memory and Memory Sticks.
 - Also commonly known as pen drive or jump drive or flash drive.
 - Static memory devices use memory chips to store information.
 - This information is retained even after power is turned off.
 - They connect to a USB port on the computer system and offer capacities of 128 MB or more.
 - Due to their size and shape, these devices are known as USB memory keys or flash drives and have widely replaced floppy disks for transportation of files between systems.
 - Many portable and hand-held devices rely entirely on static memory for storage.

Semiconductor Memory

- These days, internal memory consists of extremely small bit storage circuits (flip-flops) etched on a silicon chip.
- All the electronic elements to store a bit are placed in such a small area of the chip that a single chip can store millions of bits.
- The individual chips are arranged in groups to form a memory module.

Types of Semiconductor Memory - Random Access Memory (RAM)

- Any information can be read from and written into a RAM.
- It is a read/write memory.
- It is a volatile memory i.e. its contents are lost if the power supply is interrupted or turned off.
- The main memory of the computer system is RAM.

Read Only Memory (ROM)

- It is thus completely non-volatile.
- ROM is permanently programmed with information during manufacture, by implementing the appropriate pattern of two state values.
- It cannot be changed subsequently by a normal write operation.

It is mainly used to hold those programs, which are required permanently.

- **Cache Memory**

- It is a small capacity high-speed memory used to make processing faster.
- The main memory can process information very fast, but it takes much longer to transfer data to and from the input/output devices.
- The cache memory compensates for this mismatch in operating speeds.
- It holds those parts of data and the active program, which are most frequently used.
- Thus, the performance rate of the CPU improves.

Concept of Hardware and Software

Hardware

- Hardware refers to the physical components of a data processing system.
- Input, storage, processing and control devices are hardware such as Hard disk, Printer, Keyboard etc.
- Without any hardware your computer system would not exist and software would have nothing to run on.
- Computer system software is something that executes within the hardware.
- The hardware of a computer system is infrequently changed, in comparison with software and data.
- Hardware professionals deal with the manufacturing and maintenance of computers system.
- Many manufacturers mass produce computer systems and sell them either through direct marketing or retail chains.
- There are also a number of vendors that can custom assemble computer systems to the end-user's specifications.
- It is also possible to purchase the individual parts and component of a computer system and build it.
- Some of the items to consider when purchasing a computer system include:
 - The motherboard.
 - Processor.
 - RAM.
 - Storage.
 - Adapter cards.
 - Power options.

Software

- A computer system can only do what a programmer asks it to do.
- To perform a particular task the programmer writes a sequence of instructions, called the program.
- An instruction is a command given to the computer system to perform a certain specified operation on the given data.

A set of programs written for a computer system is called software.

- Without software, hardware is of no use.
- It cannot produce any results on its own.
- It is a general term used to describe a collection of computer system programs, procedures and documentation that perform some task on a computer system.
- Usually written in high-level programming languages software are easier and more efficient for humans to use (closer to natural language) than machine language.
- High-level languages are compiled or interpreted into machine language object code.
- Software engineers (programmers, systems analysts) develop and maintain software.
- With technological changes, software changes take place faster than hardware changes.
- Practical computer systems divide software systems into two major classes:
 - Application Software.
 - System software.

Application Software

- Software that allows you to do things like create text documents, play games, listen to music, or surf the web is called application software.
- In general, application programs are software that enable the end-user to perform specific, productive tasks, such as word processing or image manipulation.

Systems Software

- Systems software comprises of an Operating System and all utility programs (like Compiler, Loader, Linker, and Debugger) that manage computer system resources at a low level.
- Operating systems, such as GNU, Microsoft Windows, Mac OS X or Linux, are prominent examples of system software.
- System software is software that basically allows the parts of a computer system to work together.
- Without the system software the computer system cannot operate as a single unit.
- System software performs tasks like transferring data from memory to disk, or rendering text onto a display device.

Data and information

- In general, raw data that has been verified to be accurate and timely, is specific and organized for a purpose, is presented within a context that gives it meaning and relevance.
- And which leads to increase in understanding and decrease in uncertainty.

Data

- Collection of facts.
- Raw Information.
 - Processing.
 - Sequence of actions required to be performed on data to convert it into results.
 - For example, a merit list is generated after processing the raw information available about the marks of each student.
 - Results.
 - Useful Information.
 - Facts in organized manner.
- The computer system is an electronic data processing device.
- It is capable of taking input, processing it to generate useful information (output) and store both input as well as the output.
- The data processing cycle comprises of following 4 distinct stages viz. :-
 - Input: Data is collected and entered into the computer system. This is called input process.
 - Storage: What is entered into the computer system is stored in its main memory.
 - This storage is temporary i.e. the contents of the memory are lost when the power is switched off.
 - Another memory, called secondary memory, is used to store the information of the main memory permanently.

Processing & Output

- Processing :
 - The sequence of actions that are performed on the data stored in the main memory, to get results is called processing.
 - Results are stored in the main memory till they are transferred to an output device.
- Output:

- ▶ Stored results are taken out of the main memory.
- ▶ This process is known as output process.

Applications of IECT

- IECT or Information, Electronics and Communication Technology are used in various sectors.
- IECT can be used to generate quality manpower.
- Example of some of the sectors are
 - e-Governance,
 - Entertainment Multimedia and
 - Education etc.,

e-Governance

- e-Governance is a key to make information technology (IT) relevant to ordinary citizens.
- It allows citizens to communicate with Government and participate in the Governments' policy-making.
- It is a network of organizations to include Government, nonprofit and private-sector entities.
- In e-Governance, there are no distinct boundaries.
- The model for e-Governance is a one-stop portal, such as firstgov.gov, where citizens have access to a variety of information and services.
- An ideal portal would be one for employment where a citizen creates a profile and is presented with employment opportunities at the federal, state, local, non-profit and private-sectors.
- The primary delivery models of e-Governance can be divided into:
 - Government-to-Citizen or Government-to-Customer (G2C).
 - Government-to-Business (G2B).
 - Government-to-Government (G2G).
 - Government-to-Employees (G2E).
- Within each of these interaction domains, four kinds of activities take place:
 - Pushing information over the Internet e.g.: regulatory services, general holidays, public hearing schedules, issue briefs, notifications etc.
 - Two-way communications between the agency and the citizen, a business, or another Government agency.
 - In this model, users can engage in dialogue with agencies and post problems, comments or requests to the agency.
 - Conducting transactions e.g.: lodging tax returns, applying for services and grants.

- Governance e.g.: online polling, voting and campaigning.
- The primary delivery models of E-Government are classified depending on who benefits.
- In the development of public sector or private sector portals and platforms, a system is created that benefits all constituents.
- Citizens needing to renew their vehicle registration have a convenient way to accomplish it while already engaged in meeting the regulatory inspection requirement.
- To develop these public sector portals or platforms, Governments have the choice to internally develop and manage, outsource or sign a self-funding contract.
- The self-funding model creates portals that pay for themselves through convenience fees for certain e-Government transactions, known as self-funding portals.

Entertainment Multimedia

- Multimedia is a combination of sound and images with text and graphics.
- This would include movies, animations, music, people talking, sound effects like the roar of a crowd and smashing glass.
- The field of entertainment uses multimedia extensively.
- One of the earliest applications of multimedia was for games.
- Multimedia made possible innovative and interactive games that greatly enhanced the learning experience.
- Games could come alive with sounds and animated graphics.

Sound Input

- Recording sounds for your computer system requires special equipment.
- Microphones can capture sounds from the air, which is good for sound effects or voices.

Voice Input

- Talking data into the computer system when your hands and eyes are busy should certainly be more efficient.
- You can tell the computer system what to do instead of typing commands, like saying "Save file".
- One has to be careful enough while giving the sound input with regard to pronunciation of words.
- Also there could be a problem that dictionary of understood words does not include some of the more "forceful" words.

Video Input

- A Digital Camera takes still photos but records the pictures on computer system disks or

memory chips.

- The information contained can be uploaded to a computer system for viewing.
- A Video Camera or Recorder (VCR) can record data that can be uploaded to the computer system with the right hardware.
- Though it is not digital data, you can still get good results with the right software.
- Both of these take huge amounts of storage.
- Photos make for very large files.
- A Web Cam is a tiny video camera designed especially to sit on your computer system.
- It feeds pictures directly to the computer system as there would be no tape or film to develop.
- Of course the length of the cable that connects the camera to the computer system would be a limiting factor.
- But like any camera, it will take a picture of what you point it at.

Multimedia Business

- Even basic office applications like a word processing package or a spreadsheet tool becomes a powerful tool with the aid of multimedia business.
- Pictures, animation and sound can be added to these applications, emphasizing important points in the documents.

Virtual Reality

- Virtual reality is a truly absorbing multimedia application.
- It is an artificial environment created with computer system hardware and software.
- It is presented to the user in such a way that it appears and feels real.
- In virtual reality, the computer system controls three of the five senses.
- Virtual reality systems require extremely expensive hardware and software and are confined mostly to research laboratories.

Videoconferencing

- Another multimedia application is Videoconferencing.
- Videoconferencing is conducting a conference between two or more participants at different sites by using computer system networks to transmit audio and video data.

Connecting Keyboard, Mouse, Monitor and Printer to CPU and Checking Power Supply

- Connecting keyboard:
 - Keyboard has two models of connectors.
 - They are PS/2 keyboard and USB keyboard.
 - One can connect the keyboard to any one of the two ports depends on the model.
- Connecting Mouse
 - Mouse has three models of connectors.
 - They are PS/2, serial mouse, USB mouse.
 - One can connect the mouse to any one of the three ports depending on its model.
- Connecting monitor:
 - Monitors are connected to the video port of the CPU.
 - This port is also called VGA port.
 - The VDU's connector wire is connected to the VGA port. (blue in color)
- Connecting Printers:
 - Printer has two models of connectors.
 - They are parallel port printer and USB printer.
 - One can connect the printer to any one of the two ports depending on its model.

Checking Power Supply

- The computer system gets its power from the external power supply to system through SMPS (Switch Mode Power Supply), which is the power supply unit of the computer system.
- The external power chord is to be connected to the power supply plug in the computer system.
- Switch on the mains.
- Switch on the 'Power On' switch of the computer system usually located in the bottom side of the front panel.
- The computer system should be switched on and the power supply fan must be running.
- Thus, one can be assured that the computer system is getting proper power supply.

UNIT - 2

Operating computer using GUI based operating system

Introduction

- User has learnt about System Software and Application Software.
- In the current chapter, user will learn about a very important System Software viz. Operating System.
- We will use Windows to explain various aspects of an operating system.
- Microsoft has produced a number of operating systems.
- Windows XP, Windows Vista, Windows 7, Windows 8.1 are some of them.
- We have selected Windows 7 Ultimate for reference.

Objectives

- In this chapter, the user would learn about Operating System, some of the popular Operating system and their User Interface, how to run an application, how to change the system settings in Windows etc.
- The user would further learn how to create and rename the files and directories also.

Basics of Operating System

- An Operating System:
 - A program that acts as an intermediary between the user of computer system and computer system hardware.
 - Provide an environment in which user can execute programs in a convenient and efficient manner.
- It is the first program loaded into the computer systems memory after the computer system is switched on.
- Examples: Windows, Linux, Unix and Mac OS, etc.,

What is Operating System?

- The operating system is an important component of the computer system, because it sets the standards for the application programs that run on it.
- All programs must be written to talk to the operating system.
- Various functions of Operating System:
 - Memory Management.
 - Processor Management.
 - Device Management.

- File Management.

Types of Operating Systems

- Single user Operating Systems
 - These Operating Systems allow only one user to work on a computer system at a time.
 - Example : MS-DOS, CP/M.
- Multi User Operating System
 - These Operating Systems allow more than one user to work on the computer system at the same time.
 - These operating systems allocate memory in such a way that different users can work simultaneously without disturbing each other.
 - They also allocate the processing time in such a way that every user gets a very quick response from the machine.
 - These are also known as Time Sharing Operating System.
 - Example: Unix , VMS (Virtual Memory System) and mainframe operating systems
- The Examples of Operating Systems are:
 - Operating System 2 (OS/2) it was developed by IBM.
 - Windows VISTA, Windows 7, Windows 8.1, Windows Phone 8.1, Windows Server 2012 R2. It was developed by Microsoft.
 - FreeBSD, Linux, Minix are popular open source Operating Systems.

Basics of Popular Operating System (LINUX, WINDOWS)

- Windows and Linux both have a user friendly Graphical User Interface(GUI).
- GUI includes such things as: windows pull-down menus, buttons, scroll bars, iconic images, and wizards.
- They allow users to interact with the programs without having to type the commands from the keyboard.
- Users can use pointing devices like mouse to perform specific tasks on computer system.

LINUX

- Linux is a multitasking, multiuser operating system.
- It means that many people can run many different applications on one computer system at the same time.
- Linux is a generic term referring to Unix-like computer operating systems based on the Linux kernel.
- Their development is one of the most prominent examples of free and open source software collaboration.
- Typically all the underlying source code can be used, freely modified, and redistributed both commercially and non-commercially.
- Linux is predominantly known for its use in servers, although it can be installed on a wide variety of computer system hardware.
- Linux distributions, installed on both desktop and laptop computer systems, have become increasingly commonplace in recent years.
- The name "Linux" comes from the Linux kernel, originally written in 1991 by Linus Torvalds.

Microsoft Windows

- Windows operating system is GUI based and can be used on desktop computer systems.
- Its interface has following properties :-
 - Title Bar: Located at the top of the window. The title bar contains the name of the program you are working with and in some cases the name of the opened document also appears.
 - Window-management buttons: Located at the right end of the title bar.
 - ❖ Minimize button: The users click the Minimize button to collapse the window into a button on the Windows Taskbar (called minimizing the window).
 - ❖ Restore Down button: When the window fills the entire screen, user click the Restore Down button so that the window occupies only part of the screen (called reducing the

window).

- ❖ Maximize button: When the window occupies only part of the screen, you click the Maximize button so that the window fills the screen (called maximizing the window). The Maximize and Restore Down buttons share a position on the title bar; only one button appears at a time.
- ❖ Close button: The users click the Close button to close the window. If the window contains a program or file, closing the window might also exit the program or close the file.
- Menu bar and/or toolbar: Located below the title bar. A menu bar provides drop- down lists, called menus, of the commands the users click to give instructions regarding the contents of the window. A toolbar displays visual representations of the commands as buttons click.
- Scroll Bars: The scroll bars allow us to move throughout the page in a quick and simple manner.
- Simply drag the bar with the mouse or click on the arrows. There are bars to move along the width of the page and bars to move along the height of the page. The little square with dots on the right is used to change the size of the window. Simply click and drag.
- Vertical and horizontal scroll bars: Located on the right side and at the bottom of a window when it is not big enough to show all its contents. The user use the vertical scroll bar to move the contents up and down within the window, and the horizontal scroll bar to move the contents from side to side.
- Status bar: Located at the bottom of the window. This bar provides information about the contents of the window, and sometimes about on-screen elements youuser point to or click.
- Desktop: The Desktop is the on-screen work area on which windows appear. In our case it will be the Windows 7 desktop. It is the first screen that appears when the operating system has initialized.

User Interface

- User interface means how the user interacts with the computer system to perform various tasks.
- User runs the application programs, opens the document, enters the data, prints the output reports etc.
- All these are examples of user interfacing.
- The Operating System plays the main role for interfacing between user and computer system.
- The hardware devices like keyboard, mouse and monitor etc. are used for interfacing.
- There are two main types of user interfaces.
- These are:
 - Command-line user interface.
 - Graphical user interface.

Command-line User Interface

- In command-line user interface, the Operating System provides a prompt line on the computer system screen.
- The command is typed manually from keyboard to perform a specific task.
- The commands are given to the computer system according to the rules and syntax of the commands.
- This type of interfacing is difficult.
- The Operating System DOS is an example of command-line interface.
- The input device keyboard is used for interfacing in DOS.

Graphical User Interface (GUI)

- In Graphical User Interface, the Operating System provides graphical images on the computer system screen, which are known as icons or command buttons and represent objects.
- Microsoft Windows Operating System is an example of GUI.
- The input device mouse is most commonly used in Windows to select and to execute the commands (or to open any computer system resources).

Taskbar

- The taskbar is the long horizontal bar at the bottom of your screen. Unlike the desktop, which can get obscured by open windows, the taskbar is almost always visible.

It has three main sections:

- ➤ The Start button, which opens the Start menu.
- The middle section, which shows you which programs and files you have open and allows you to quickly switch between them. Provide access to pinned and running programs.
- The notification area, which includes a clock and icons (small pictures) that communicate the status of certain programs and computer settings.

Icons: Using Mouse and Moving Icons on the screen

- Different actions can be performed with mouse in Windows environment.
- The most common mouse actions are:
 - Point: It means to position the mouse pointer on the desired icon or object by moving the mouse over flat surface.
 - Click: It means to quickly press and release the mouse button (left button) without moving the mouse. This action is usually used to select icons, to select menu commands or to choose options in a dialog box.
 - Right Click: It means to quickly press and release the right-button of mouse without moving the mouse. This action is usually used to display a shortcut menu.
 - Double Click: It means to quickly press and release the mouse button twice without moving the mouse. This action is usually used to select and open an object.

Moving Icons on the Screen

- Drag:
 - It means to place the mouse pointer on an object then press and hold down the left mouse button and move the mouse.
 - The mouse pointer along with the object will move across the screen.
 - When the mouse pointer reaches at desired location then release the button.
 - This action is used to move objects such as application window, icons or text from one location to another on the screen.

Computer Icon

- Double-clicking the Computer icon opens a window from which you can access hard disk drives and devices with removable storage.
- Right-clicking the Computer icon and selecting Manage opens the Computer Management console. Right-clicking the Computer icon and selecting Map Network Drive allows you to connect to shared network folders.
- Right-clicking the Computer icon and selecting Properties displays the System page in Control Panel.
- It displays the computer system resources such as floppy drive A, hard drives like C, D, CD/DVD-ROM drive, Removable drives, etc.
- Computer icon is very easy tool used to manage files and folders on the disk.
- Usually, files & folders are copied or moved from one location to another through “Computer

icon”.

The Recycle Bin

- The Recycle Bin is a special folder of Windows on the hard disk and has an icon on desktop.
- It contains files and folders that are deleted from the hard disk.
- Any files and folders you delete from the hard disk are transferred to the Recycle Bin.
- These files or folders can be restored from the Recycle Bin to their original location if required for use.
- The Recycle Bin is very useful for recovering the files or folders that are accidentally deleted.

Menu

- A list from which you can give an instruction by clicking a command.
- Start Menu:
 - The Start menu is the main gateway to your computer's programs, folders, and settings. It's called a menu because it provides a list of choices.
 - Start Menu is located at the lower-left corner of the Taskbar.
 - Clicking the Start button displays the Start menu.
 - Use the Start menu to do these common activities:
 - ❖ Start programs
 - ❖ Open commonly used folders
 - ❖ Search for files, folders, and programs
 - ❖ Adjust computer settings
 - ❖ Get help with the Windows operating system
 - ❖ Shutdown the computer
 - ❖ Log off from Windows or switch to a different user account

Running an Application

- To run any program/application, follow the given steps :-
 - Click 'Start'.
 - In "Search programs and files", Enter the first few characters of the application / program one wishes to open.
 - Click on 'More Results'.
 - The applications / programs installed in the computer which contains the characters Entered in 'Search programs and files' will be displayed in the search results dialog box.
 - Click the desired application/Programs in the search results dialog box.
 - The Specific application/programs will appear in a separate window.
 - The user can begin to work with the application now.

Operating System Simple Setting: Control Panel

- The Control Panel is a part of the Microsoft Windows graphical user interface which allows users to view and manipulate basic system settings and controls via applets, such as adding hardware, adding and removing software, controlling user accounts, and changing accessibility options.
- Control Panel is full of specialized tools that are used to change the way Windows look and behave.
- Some of these tools help you adjust system settings that make your computer system more fun to use.
- To open the Control Panel, click the Start button on the taskbar and then click Control Panel on the Start menu.

Changing System Date and Time

- To change the date and time, Date and Time icon/option of control panel can be used.
 - Open Date and Time by clicking the Start button, clicking Control Panel, clicking Clock, Language, and Region, and then clicking Date and Time.
 - Click the Date and Time tab, and then click Change date and time. If you're prompted for an administrator password or confirmation, type the password or provide confirmation.
 - Click the new date.
 - In the Date and Time Settings dialog box, do one or more of the following:
 - To change the hour, double-click the hour, and then click the arrows to increase or decrease the value.
 - To change the minutes, double-click the minutes, and then click the arrows to increase or decrease the value.
 - To change the seconds, double-click the seconds, and then click the arrows to increase or decrease the value.
 - When you have finished changing the time settings, click OK.

Change the Size of the Desktop and Colors

- To change the display settings, follow the procedure below: Notice the steps are almost identical, and the visual appearance of the displays is almost identical.
 - Click Start, and then click Control Panel. The Control Panel window will open.
 - From the Control Panel window, Click Appearance and Personalization.
 - Under Personalization, click Display.
 - Alternatively Right-click an empty space on the desktop, select Personalize and then click

Display.

- To make the text on your screen larger or smaller, Choose one of the following:
 - Smaller - 100% (default). This keeps text and other items at normal size.
 - Medium - 125%. This sets text and other items to 125% of normal size.
 - Larger - 150%. This sets text and other items to 150% of normal size. This option appears only if your monitor supports a resolution of at least 1200 x 900 pixels.
- Click Apply.
 - To see the change, close all of your programs and then log off of Windows. This change will take effect the next time you log on.

Change the Desktop Background

- Change the background of the screen by adding a patterned design or wallpaper (a picture or image that can display on the screen).
- There are several display options for the image used on the desktop.
- Change wallpaper to a full screen graphic or a small graphic that appears only in the center of the screen.
- Stretch a graphic until it fills the entire screen or tiles a graphic across the screen.
- Tiling a graphic is like tiling a floor.
- The small image is placed in the upper-left corner of the screen, and then the image is repeated until the entire screen is filled with the now tiled image.
- To change the wallpaper on the screen, follow these steps:
 - Click Start, and then click Control Panel. The Control Panel window will open.
 - From the Control Panel window, Click Appearance and Personalization.
 - From the Personalization menu, click Change desktop background.
 - Click the picture or color that you want to use for your desktop background.
 - If the picture you want to use isn't in the list of desktop background pictures, click an item in the Picture location list to see other categories, or click Browse to search for the picture on your computer.
 - When you find the picture that you want, double-click it. It will become your desktop background.
 - Look for pictures in other locations on your computer.
 - Under Picture position, click the arrow and choose whether to crop the picture to fill the

screen, fit the picture to the screen, stretch the picture to fit the screen, tile the picture, or center the picture on the screen, and then click Save changes.

- Alternatively To make any picture stored on your computer (or a picture you are currently viewing) your desktop background, right-click the picture, and then click Set as Desktop Background.

Change the Screen Saver

- Windows has a number of screen savers.
- Screen savers help to prevent an image from permanently "burning" into the display.
- To change the screen saver, follow these steps.
 - Click Start, and then click Control Panel.
 - In the Appearance and Personalization window of Control Panel, under Personalization, click Change screen saver.
 - The Screen Saver Settings dialog box opens.
 - In the Screen Saver pull-down menu, select the screen saver to be used.
 - Click Settings to modify the settings particular to the selected screen saver.
 - Click Preview to see how the screen saver will appear on the computer system screen.
 - The preview will end and return to the Display Properties panel in a few seconds.
 - To specify when to activate the screen saver, enter a number of minutes in the Wait box.
 - Either enter a specific number or use the arrows to increase or decrease the wait time.
 - To clear the screen saver after it has been activated and resume operation, move the mouse or press any key.
 - To automatically lock the computer system when the screen saver is activated, select the Password protection box.
 - Click Apply and then OK to confirm the settings.
 - Different monitors have different features, including Energy Saving options.

Change the Appearance of the Windows

- Changing the appearance refers to the colors that are used by Windows for the default color scheme of the background, windows, and text fonts.
 - Click Start, and then click Control Panel.
 - In the Appearance and Personalization window of Control Panel, Click Personalization.

- From the Personalization menu, scroll down to view the existing Windows themes.
- Click a desired theme.
- The desktop background changes in accordance with the theme.
- The window color and other settings might also change.
- Close the window to retain the changes.

To Add a Windows Component(Windows features)

- Click the Start menu and then choose Control Panel.
- In the Programs category, click Uninstall. The Programs and Features window opens.
- In the left pane of the Programs And Features window of Control Panel, click Turn Windows Features On Or Off .(if prompted).
- Windows brings up a window listing all its features. The features with check marks by their names are already installed. If you see a box that's filled — neither empty nor checked — double-click to see what's installed and what's left out.
- To add a component, click in its empty check box. To remove an installed component like Windows' Games, deselect its check box.
- Click the OK button.

Changing the Shape of Mouse Pointer

- Click Start button and then click Control Panel.
- In the Hardware and Sound section, click View devices and printers and then click Mouse.
- Right-click on a Mouse and choose Mouse settings.
- Open the Mouse Properties dialog box, and then click the Pointers tab.
- To change the entire set of pointers to one of the built-in pointer schemes, in the Scheme list, click the scheme you want.
- To change an individual pointer icon:
 - In the Customize list, click any pointer icon, and then click Browse.
 - The Browse dialog box opens with the contents of the Cursors folder displayed. (The cursor is another name for the pointer.)
 - In the Browse dialog box, double-click any pointer icon to replace the one you selected in the Customize list.
- Click Apply or OK.

Adding and removing Printers

- In most cases, installing and using a printer in Windows 7 is nearly effortless. Just plugging the printer into your computer is usually enough. Installation and setup is automatic and silent.
- Installing a printer
 - Connect the printer to a USB port on your computer.
 - Turn on the printer.
 - Let Windows 7 automatically detect and install the device. Your computer will search its driver cache and may search the Windows Update site.
 - If Windows 7 displays an alert notifying you that it is installing the device driver software, click the alert
 - Clicking the alert opens the Driver Software Installation window displaying information about the drivers Windows is installing.
 - After Windows announces that the printer is ready to use, close the Driver Software Installation window.
 - The printer is detected.
 - After the driver is installed, the printer is ready to use.
- Installing a Local printer
 - Click the Start button on the taskbar and then click Devices and Printers.
 - Click the Add a Printer button on the Devices and Printers window toolbar to start the Add Printer Wizard, make sure that the Add Local Printer option is selected, and then click Next.
 - Select the port for the printer to use in the Use an Existing Port drop- down list in the Select a Printer Port dialog box and then click Next.
 - Click the manufacturer and the model of the printer in the Manufacturers and Printers list boxes, respectively, of the Install Printer Driver dialog box. If you have a disk with the software for the printer, put it into your CD-ROM/DVD drive and then click the Have Disk button. Select the drive that contains this disk in the Copy Manufacturer's Files From drop-down list and then click OK. If you don't have the disk, click the Windows Update button.
 - Click the Next button to advance to the Type a Printer Name dialog box. By default, the printer will be named using its full model name. You can change or shorten this if you wish. Then, click Next.
 - By default, the printer will be shared on your network. If you do not want to share the printer, click Do Not Share This Printer. Then, click Next.
 - If you want this printer to be your default (primary) printer, click Set As the Default Printer.

- To print a test page from your newly installed printer, click the Print a Test Page button in the Add a Printer dialog box before you click the Finish button to finish installing the new printer.
- Installing a Network printer
 - To use the Add Printer Wizard to install a printer that's available through your local area network, follow these (slightly different) steps:
 - ❖ Click the Start button on the taskbar and then click Devices and Printers.
 - ❖ Click Add a Printer.
 - ❖ Click Add a Network, Wireless, or Bluetooth printer.
 - ❖ After Windows is finished Searching for Network Printers list, select a printer and then click Next.
 - ❖ In the Ready to Install Printer dialog box, edit the name for the printer in the Printer Name text box if you want before you click Next.
 - ❖ To print a test page from the newly installed printer, click the Print a Test Page button in the Add a Printer dialog box before you click the Finish button to finish installing the new printer.
- To remove a printer in Windows
 - Click "Start button" then " Click Devices and Printers. ".
 - When the " Devices and Printers" window appears, right-click on a printer and choose " Remove Device. "
 - Confirm when prompted.

Create Folder On the Desktop

- Right-click the desktop (i.e., any part of the screen not occupied by a window).
- Select New, then Folder.
- A new folder will appear on the desktop.
- Replace the temporary folder name (New Folder) by first typing a name of your choosing and then pressing Enter.

Create a file

- Open the Windows Explorer window where the new file is required.
- Right-click a blank area in the window's display area and then choose New from the shortcut menu that appears.
- Choose the type of file you want to create (such as Microsoft Office Word Document, Microsoft Office Excel Worksheet, Text Document, Briefcase, and so on) from the New submenu.
- Replace the temporary filename (such as New Microsoft Word Document) by typing a name of your choosing and pressing Enter.

Creating a Folder

- Open the Windows Explorer window (such as Documents or Computer) in which the new folder is to appear.
- Click the New Folder button on the window's toolbar.
- Replace the temporary folder name (New Folder) by first typing a name of your choosing and then pressing Enter.

To Rename a file or folder

- Navigate and select the file or folder you want to rename. Click Organize.
- Click Rename.
- Type the new name that you want to give the folder (up to 255 characters) or edit the existing name. You can use the Delete key to remove characters and the → or ← key to move the cursor without deleting characters.
- The folder is renamed.

Common Utilities

| | |
|------|---|
| .doc | Microsoft Word File. |
| .xls | Microsoft Excel File. |
| .exe | Executable File. |
| .txt | A plain text file, can be read by Word, Notepad, WordPad and many others. |
| .bmp | A picture file created with paint. |
| .jpg | A compressed picture file. |
| .wav | A sound file. |
| .mp3 | A compressed sound file. |

- This was quite restrictive, with only 8 characters available to describe the file contents, and in windows 98 onwards you can use 255 characters to name your file.

UNIT - 3

Understanding Word Processing

Word Processing Basic

- Word Processing Software is used to create letters, memos, faxes and various other types of documents.
- The Word Processing Software has the following important features:
 - Creating new documents with different formatting.
 - Save the document on disk for future use.
 - Preview the document on the monitor before getting its hardcopy on paper.
 - Open the existing documents for editing.
 - Set the margins of document and line spacing.
 - Copying, moving, selecting, deleting, inserting etc. operations on text in the document.
 - Underline text, bold face text, setting size of text etc.
 - Images can be inserted into the document.
 - Cut or copy the selected text from the document and paste it anywhere in the same or another document.

Some Common Word Processing Packages

- Some examples of word processing software's are
 - Microsoft Word.
 - Libreoffice Suite.
 - Open office.suite.
 - AbiWord.
 - PolyEdit etc.
- MS-Word is one of the most popular word processors which is very widely used today.
- In this unit, the learner will be given an insight about the basics of MS-Word.
- Microsoft Word 2010 includes the Ribbon, Quick Access toolbar and Backstage view.
- Start the Microsoft Word 2010:
 - Click Start button on the taskbar.
 - Click All Programs, scroll down if necessary in the All Programs menu.
 - Click Microsoft Office, and click Microsoft Word 2010.

- Microsoft Word 2010 is displayed on the screen.

The Ribbon

- “The Ribbon” is the professional term for the Microsoft Word toolbar.
- The Ribbon contains all of the commands you’ll need in order to perform common tasks.
- It contains multiple tabs, each with several groups of commands, and you can add your own tabs that contain your favorite commands.
- Some groups have an arrow in the bottom-right corner that you can click to see even more commands.
- They are
 - File tab,
 - Home tab,
 - Insert tab,
 - Page Layout tab,
 - References tab,
 - Mailings tab,
 - Review tab,
 - View tab.

The Quick Access toolbar

- The Quick Access toolbar, located above the Ribbon, lets you access common commands no matter which tab you’re on.
- By default, it shows the Save, Undo, and Repeat commands.
- You can add other commands to make it more convenient for you.

Backstage view

- The Office Backstage view is where you manage your files and the data about them
 - Creating,
 - Saving,
 - Printing,
 - Sharing files,
 - Inspecting for hidden metadata or personal information, and

▶ Setting options.

Opening and Closing Documents

Create a New Blank Document

- Follow these steps to create a new blank document:
 - Click the 'File tab'.
 - Click 'New'.
 - Select Blank document under Available Templates.
 - It will be highlighted by default.
 - Click Create.
 - A new blank document appears in the Word window.
- Alternatively, one can use (Ctrl+N) combination of keys to create a blank document.

Opening Documents

- Documents like letters, memo and reports that have already been created can be opened, previewed, and printed with the defined margins.
- These documents can be saved with modification at different locations.
- MS Word can automatically save the contents of documents at defined intervals (Auto Save).

To Open an Existing Document, Follow these Steps

- Select the 'Open' option from the File tab.
- The 'Open' dialog box will be displayed.
- Locate the file to be opened on the hard disk.
- Select the appropriate drive and folder.
- Double-click on the desired filename to load the document.(or)
- Alternatively, press Ctrl+O on the Keyboard to open a document.

Save a Document

- In order to preserve the document for future use, you must save it on the disk.
- The user can use the following method to save a file:
 - Click the File tab.
 - Click Save.

Type a name for the document, and then click Save.

- ➤ Word saves the document in a default location.
- To save the document in a different location, select another folder in the list of folders.
- Alternatively, On the Quick Access Toolbar, click Save , or press CTRL+S. to open the Save As dialog box.

Save an Existing Document as a New Document (Save As)

- To prevent overwriting the original document, use the Save As command to create a new file as soon as you open the original document.
- Open the document that you want to save as a new file.
 - Click the File tab.
 - Click Save As.
 - Type a name for the document, and then click Save.
 - Word saves the document in a default location.
 - To save the document in a different location, click another folder in the Save in list in the Save As dialog box.
 - If you want to change the default location where Word saves documents, adjust the settings for saving documents.

Closing Documents

- There are different easy ways for exiting the MS-Word Application.
- To close an active MS-word window
 - Using the File Tab and click on 'Close' button to close the close the active MS-word window.
 - One can also use the Ctrl+F4 key combination to close the active MS-word window.
- To close an active MS-word application
 - Click on the File tab and then click 'Exit' to quit the Application.(Or)
 - Click on the close button which is the 'X' button found on the top right corner of the window. (Or)
 - One can also use the (Alt+F4) key combination to close the MS-word application.

Text Creation and Manipulation

Introduction

- There are several types of Word documents the user can start from like blank document, web page and template.
- Blank document should be used when the user wants to create a traditional printed document.
- The user can use a template when the user wants to reuse text custom toolbars, macros, shortcut keys, styles, and AutoText entries.
- The text can be copied, moved to a different location.
- Basic cut, copy and Paste features of windows can be used here.
- Text can be aligned in different ways.
- The table shown below lists the combination keys which can be used to navigate around the document easily.

| Arrow Key(Short Cut Keys) | Functions |
|---|---------------------------------------|
| Up arrow, Down arrow, Left arrow, Right arrow | One character up, down left and right |
| Ctr+Right arrow | Next word |
| Ctr+Left arrow | Previous word |
| Home | Beginning of the line |
| End | End of the line |
| Ctr+Home | Beginning of the Document |
| Ctr+End | End of the Document |
| Ctr+Page up | Previous page |
| Ctr+Page Down | Next page |

Inserting Text

- To insert a text in the document, the user has to click at the location where he would want to insert the text.
- The insertion point would be displayed at that location.
- Enter the text now and save the file.

- Word is normally in the 'insert on' mode.
- The insertion point always stays within the text area.
- As the user types in the text, it is pushed to the right and at the end of the line it is pushed down to the next line.
- Press insert button on the keyboard to go to the 'insert off' mode.
- Any text Entered now will replace the text already Entered in the document.

Delete a text

- To delete a text in the document, the user has to click at the location where he would want to delete the Entered text.
- The insertion point would be displayed at that location.
- Use the delete or backspace keys to delete the Entered text. Save the file.

Editing text

- This includes how to insert, delete, modify and copy texts.
- The user can undo or redo the edits in a Word document by using the Undo or Redo options.
- Before the user can start editing, the cursor must be moved to the location where the changes have to be made.

Word-Wrap Feature

- When the end of the line is reached, while typing a text word automatically wraps the text, eliminating the need to press the "Enter" key until the user wants to start a new paragraph.

Using the Undo or Redo options

- The user can undo or redo the edits performed in a Word document by using the Undo or Redo options.
- Before the user can start editing, the cursor has to be moved to the location where the changes have to be made.

Undo Edits

- The Undo command is used to reverse the recent editing that was done on the document.
- Select the 'Undo' option from the Quick access toolbar.
- Alternatively, press Ctrl + Z or press Alt + Backspace on the keyboard to 'Undo the changes' made.

Redo Edits

- The Redo option is used to reverse the last Undo operation performed.
- To redo a change, select the redo option from the Quick access toolbar.
- Alternatively, press 'Ctrl + Y', or 'Alt + Shift + Backspace'.

Text Selection

- Select the text in document
 - Text can be selected by using the mouse, the keyboard, or both.
 - To select one word, place the insertion point on the word and double-click on it.
 - To select a sentence, Hold down the Ctrl key while clicking anywhere on the sentence.
 - To select a paragraph, Place the mouse pointer on the selection bar and double-click on it.
 - To select specific text, Click and drag the I-beam pointer over one character, one word or the entire screen as desired.

Cut, copy and paste

- These tools of word are most extensively used to copy, move or remove text from one place to other.
- To use them, text must first be selected.

Moving Text

- To move the text from one point to another, the steps are as follows:
 - Select the text to be moved.
 - Select the 'Cut' button (Cut Icon) in 'Clipboard' on the Home tab. or select the text and press Ctrl+X.
 - Now the text has been copied to clipboard and is ready to be moved.
 - Position the insertion point where the user wants the text to be displayed.
 - To paste the text at the required position, Click the 'Paste' button in 'Clipboard' on the Home tab.
 - Alternatively, users can use CTRL + V to paste the text at the required position.
- Once the pasting is over, the cut text will be displayed in the new location.

Copying Text

- It is possible to copy text to another part of the same document or in a different document.
 - Select the text to be copied.

- Right-click on the highlighted text.
- A shortcut menu appears near the highlighted text.
- Select the 'Copy' option from shortcut menu.
- Alternatively, after selecting the text to be copied, users can use CTRL + C to copy the text at the required position.
- Move the insertion point to the location where the user wants to paste the text.
- Select the 'Paste' button in 'Clipboard' on the Home tab to paste the selected text in the desired location.
- Alternatively, users can use CTRL + V to paste the text at the required location.
- Once the pasting is over, the copied text will be displayed in the new location.
- However, the text at the original location will remain as it is.

Formatting of Text

Change fonts and font styles

- Font refers to the manner or style in which text is displayed in the document.
- Word offers many ways to change fonts and font styles.
- Follow these steps to change fonts and font styles:
 - Use the drop-down font list in 'Font' on the Home tab as displayed in the figure below or type the name of the desired font directly into the font name box on the toolbar and press the Enter key.
 - ❖ To enhance the aesthetic look of a document, a user can use the buttons in 'Font' on the Home tab.
 - Bold (B), Italics (I), and Underline (U) buttons.
- To enhance the aesthetic look of a document, a user can use the buttons in 'Font' on the Home tab.
 - Bold (B) – makes the selected text appear bold,
 - Italics (I)- (italicizes the selected text) and
 - Underline (U) (underlines the selected text).

Bold Text

- To make text bold:
 - Select the text the user wishes to change.
 - Click on the 'Bold' button in Font group on the Home tab.
 - The text will appear bold.
 - Bold text looks like this.

Italic Text

- To make the text Italic:
 - Select the text the user wishes to change.
 - Click on the 'Italic' button in Font group on the Home tab.
 - The text will be italicized.
 - Italicized text looks like this.

Underlined Text

- To underline text:
 - Select the text the user wishes to change.
 - Click on 'Underline' in Font group on the Home tab.
 - The text will be underlined.
 - Underlined text looks like this.

Changing Font Size

- Font size is measured in points.
- Word offers many ways to choose font sizes.
- To change the font size, follow these steps:
- Use the drop-down Font size in 'Font' on the Home tab.
- Choose a value from the font size list box or type the font size.

Use the font dialog box.

- Font dialog box contains most comprehensive collection of formatting options.
- To open the Font dialog box, follow these steps:
 - Select the 'Font' option in Home tab.
 - Select any option from the Font Style scroll list.
 - The user can apply one or more of these styles to the selected characters and to the subsequently typed text.
 - Click on 'Regular' option to remove the effects. More than one style can be combined.
 - In the Effect area, a black check mark on an option indicates that all the selected text, exhibits that particular attribute.
 - A completely clear box for an option indicates that the selected text does not have the specific attribute and a gray check mark indicates that some of the text does not exhibit the character formatting option.

Alignment of Text

- Alignment is a way of organizing the text.
- It refers to the position of the text relative to the margins.
- Word enables the user to left-align, right-align, center-align and justify the text in the document.
- The user can do this by using the four buttons as display; Words default alignment is left alignment.

Right-Aligned Text

- Text is said to be right aligned if it is aligned with the right margin of the page.
- To right-align a paragraph, position the cursor on any line within the paragraph to be right aligned and click on the 'Align Right' button in the Paragraph group of Home tab.

Left-Aligned Text

- Text is said to be left aligned if it is aligned with the left margin of the page.
- This is the default mode of alignment in MS-Word.
- To left-align a paragraph, position the cursor on any line within the paragraph to be left aligned, and click on the 'Align Left' button in the Paragraph group of Home tab.

Centered Text

- The Center option is normally used to center the heading and text.
- To center a line of text or selected text, position the cursor on the line of text or selected text, and click on the 'Align Center' button 'Paragraph' group on the Home tab.

Justified Text

- This feature aligns a paragraph with both the left and the right margins.
- Inter-word spacing is adjusted such that each line of text begins at the left margin and ends at the right margin.
- To justify a line of text or to justify a paragraph of text, position the cursor on the line or in any line in the paragraph and click on the 'justify' button in Paragraph group on the Home tab.

Indentation

- Indentation determines the amount of horizontal space of the paragraph.
- Determines where the paragraph.
- To indent a paragraph:
 - Select the paragraph or place the insertion point in the paragraph.
 - From the 'paragraph' on the Home tab, select the Indents (Decrease or increase indents).
 - In the Indentation section, the user can choose any options.

Bullets and Numbering

- Two Types of Formatting using bullets
 - Bullets and numbering provide an excellent way to list and organize information in documents.

- The user should use a bulleted list when he has several related items, but the order in which the reader sees them does not matter.
- A numbered list should be used when a user has several related items, but the order does matter.
- The user can determine which method is appropriate depending on the type of document he is trying to create.
- Bulleted or numbered lists make the documents more readable and visually interesting.
- Bullets and numbering allows one to organize text in lists.
- Bullets are useful for unordered lists in which each item is not significantly more important than the other.
- Bullets are also useful when a user is trying to explain a concept or an idea point by point.
- For example, the current paragraph is a bulleted text and symbols have been used as bullets.

Two types of Formatting

- There are two different types of formatting that a user can apply:
 - Direct Formatting,
 - Style Formatting.

Direct Formatting

- Select the text to for which Direct formatting is to be applied.
- Click on 'bullets' icon located in the Paragraph group in Home tab.
- The selected would appear as bulleted text.
- The bullets dialog box handles any Character Formatting that is necessary.

Style Formatting

- Select the text for which style formatting is to be applied.
- Select a style for the text from the style drop-down menu or from the Styles and formatting task pane.
- The selected style is now applied to the selected text.

Changing case

- Word provides an option to change capital letters to small letters or small letters to capital letters or combination of both by using the Change Case Command.

- The steps to convert the text case are:
 - Select the text to be changed.
 - Select the 'Change Case' button in Font group on the Home tab.
 - A 'Change Case' dialog box is now displayed.
 - Select the desired option.
- The desired effect would now have been applied to the text.

Using the sentence case

- Capitalizes the first letter of the first word of the selected text and changes the rest to lowercase.

Example

- Original Text: THE QUICK BROWN FOX JUMPED OVER THE LAZY DOG.
- After Sentence Case: The quick brown fox jumped over the lazy dog.

Using the Lower case

- Selecting lowercase will change all the letters of the text selected to lowercase letters.

Example

- Original Text: THE QUICK BROWN FOX JUMPED OVER THE LAZY DOG.
- After lowercase option: the quick brown fox jumped over the lazy dog.

Using the UPPERCASE

- Selecting UPPERCASE will change all the letters of the text selected to uppercase letters.

Example

- Original Text: The quick brown fox jumped over the lazy dog.
- After UPPERCASE option: THE QUICK BROWN FOX JUMPED OVER THE LAZY DOG.

Using the Title case

- Selecting Title Case will capitalize the first letter of every word in the selected text.

Example

- Original Text: THE QUICK BROWN FOX JUMPED OVER THE LAZY DOG.
- After Title Case option: The Quick Brown Fox Jumped Over The Lazy Dog.

Using the Toggle case

- Selecting Toggle Case will change the capitalization of the selected letters to be the opposite of what they currently are, meaning that any letter that is capitalized in the selected text will be changed to lowercase, and any lowercase letter in the selected text will be capitalized.

Example

- Original Text: The Quick Brown Fox Jumped Over The Lazy Dog.
- After Toggle Case option: tHEqUICKbROWNfOXjUMPEDoVERTHEIAZYdOG.

Table Handling

Introduction to tables

- A table is made of rows and columns of cells.
- Text, numbers and graphics including pictures can be stored in these cells.
- Cell - A cell is the intersection of a row and a column.
- Rows - A row is a horizontal block of cells.
- Column - A column is a vertical block of cells.

Table Manipulation

- The user can create documents such as
 - Forms,
 - Financial reports,
 - Catalogs,
 - Bio-data.
- The user can insert and delete rows and columns in a table.

Draw Table

- The quickest way to add a table in MS Word is for a user to select the size of the table (number of rows and columns) that is needed from the Table grid.
- Click the Insert tab.
- Click 'Table'.
- Click 'Draw Table'.
- The mouse pointer now appears like a pencil.
- Click, in the document, where the user wants the upper left corner of the table to begin.
- Drag the mouse drag to the opposite corner where the table should end and then release the mouse button.
- Use the pencil to draw row and column gridlines in the table.
- The lines need not span the table height or width.

Changing cell width and height

Change Row Height

- Resize row heights by placing the cursor on the line that separates two rows.
- This will cause the height indicator to appear.
- Left click and drag the mouse up or down, to adjust the row height.

Change Column Width

- Resize column width by placing the cursor on the line that separates two columns.
- This will cause the width indicator to appear.
- Left click and drag the mouse to the left or to the right to adjust the column width.

Alignment of Text in cell

- The user can align the text or data in the table as deemed necessary.
 - Step 1: Click on the cell, for which the alignment needs to be changed.
 - Step 2: Select the Layout tab.
 - Step 3: In the Alignment group, user has the options of aligning the text to the left, center or right of the top, center or bottom of the cell.

Insert Rows

- Click a table cell in the row above or below where one wants the new row to appear.
- Under Table Tools, on the Layout tab, in the Table group, click 'Select', and then click 'Select Row'.
- Use Table Tools, on the Layout tab, in the 'Rows and Columns' group, to add rows in the table.
- To add a row above the selected row, click 'Insert Above'.
- To add a row below the selected row, click 'Insert Below'.

Insert Columns

- Click a table cell in the column to the left or the right of where one wants the new column to appear.
- Under Table Tools, on the Layout tab, in the Table group, click Select, and then click Select Column.
- Under Table Tools, on the Layout tab, in the Rows and Columns group, do one of the following:
 - To add a column to the left of the selected column, click Insert Left.
 - To add a column to the right of the selected column, click Insert Right.

Delete Rows

- Under Table Tools, on the Layout tab, in the Table group, click Select, and then click Select Row.
- Under Table Tools, on the Layout tab, in the Rows & Columns group, click the arrow under Delete.
- To delete a row, click Delete Rows or press BACKSPACE.

Delete Columns

- Under Table Tools, on the Layout tab, in the Table group, click Select, and then click Select Column.
- Under Table Tools, on the Layout tab, in the Rows & Columns group, click the arrow under Delete.
- To delete a column, click Delete Columns or press BACKSPACE key.

Spell Check, Language Setting and Thesaurus

Spell check

- Most word processors have a dictionary and a thesaurus built in.
- On opening an existing document, the user can use the spell check function to check for typographical errors in the document.
- The words with spelling errors would usually be underlined with a red wavy line.
- The user can place the cursor on the particular word and using the left click of the mouse, the alternate words would be displayed now.
- Choose the correct word, if it is displayed.
- The user can also ignore the corrections suggested by the software.
- You can do a spell check manually by pressing the F7 key or if you do it the long way, click "Review tab" and then click Spelling & Grammar in the proofing group".

Thesaurus

- A thesaurus is a dictionary of synonyms, words and phrases that mean the same thing as a particular word or phrase.
- Microsoft Word is equipped with a thesaurus feature that enables a user to look up both synonyms and antonyms (words and phrases that mean the opposite of a particular word or phrase).
- Using Word's thesaurus feature can help a user add more variety to his writing and suggest words and phrases that the readers can understand better.

Using the Thesaurus from the File Menu

- Select "Thesaurus" from the "Proofing" group on the "Review" menu ribbon.
- Select the word, one wants to find a synonym for.
- Press the 'Alt' key and click on the word.
- A list of synonyms will appear in the "Research" task pane.
- Replace the selected word with the synonym of one's choice.
- Choose the replacement word or phrase.
- Click "Insert" or "Copy" from the popup menu.
- If a user does not see the word or phrase he wants, he can find additional synonyms by clicking any word in the results list.

- To return to a previous list of words, click the "Back" button above the results list.

Changing the default language setting

- A user can also look up words in the thesaurus of another language.
- If, for example, if the document is in French and one wants synonyms, click 'Research options' in the Research task pane, and then under Reference Books, select the thesaurus options that are needed.
- The default setting is English.

Printing of Word Document

- Before printing a document, the page has to setup as deemed necessary.
- Page's settings can be modified using 'Page Setup' option in Page Layout tab.
- If a user does not modify the page settings, the default values will be taken as it is and printed.
- To customize your page for printing - The following options are available in the page layout tab.
 - Margin,
 - Paper size,
 - Paper source,
 - Layout.

Margins

- Change the margins by altering the Top and Bottom values.
- The user can apply this to the whole document or just parts by selecting the appropriate value.
- Page's margins are the blank space around the edges of the page.
- In general, the user inserts text and graphics in the printable area inside the margins.

Gutter margins

- Gutter margins add extra space to the side or top margin of a document the user plans to bind.
- A gutter margin ensures that the binding doesn't obscure text.

Mirror margin

- Mirror margins help set up facing pages for double-sided documents, such as books or magazines.
- In this case, the margins of the left page are a mirror image of those of the right page.

Header and footer

- Header and footer are used to define the distance of the header and footer from the edge of the paper and is a separate setting from the page margins.
- When the user has finished setting up the document, click on the OK button.

Paper Size

- The Paper size by default is set to A4 for laser printing or Letter for line printing.
- However, if necessary, the paper size can be changed from one of the available options in the

'paper size' list box.

Change Orientation

- The user can also change the orientation of the paper from Portrait to Landscape by clicking in one of the Orientation boxes.
- The default orientation is 'Portrait'.

Paper Source

- The paper source tab will allow the user to select different paper trays on the printer for different pages of the document.
- This is a nice feature if the user wants the first page to be of a different color.
- The user can use the first page option to select which printer tray to print the first page from.
- The user can use the other pages option to select which printer tray to print the other pages from.
- When the user has finished setting up the document, click 'OK' button.

Layout

- The layout tab allows the user to configure the headers and footers and the vertical alignment of the document.
- Section start: Section start tells Word where the current section begins.
- Headers and footers: Headers and footers are identical within a section, but the user can choose different odd and even headers and footers, which would be useful with mirror margins (under Margins), when printing facing pages.

Print Preview

- Print Preview displays one or more entire pages at one time.
- You can adjust the left and right margins, and move text up or down on the page.
- Use print preview to make minor changes to the overall page layout.

To Print Preview

- Click the File tab, and then click Print.
- A preview of your document automatically appears.
- To view each page, click the arrows below the preview.

To print a document, follow the steps listed below

Now that the page has been setup, a user needs to print the documents.

- ● On the Print tab, the properties for your default printer automatically appear in the first section, and the preview of your document automatically appears in the second section.
 - Click the File tab, and then click Print.
 - When the properties for the printer and document appear the way that it needs to be, then click Print.
- Alternatively, press Ctrl+P on the keyboard to print a document.

UNIT - 4

Using Spreadsheet

Basics of Spreadsheet

Introduction

- Electronic spreadsheet is the most commonly used data analysis tool.
- Spreadsheet tools are used to structure and rearrange data for their study and manipulation to achieve desired results.
- These are traditionally used to develop plans, budgets and other analysis.
- It accepts data values and relationships in the columns and rows of its worksheet and then allows users to perform calculations and other operations on this data to answer analysis Questions.
- In this chapter, the user would learn the following in detail - elements of Electronic Spread Sheet, how to open, address, save and printing of workbooks.
- Using various formulas and functions are also covered in this chapter.

Elements of Electronic Spread Sheets

- MS Excel is an example of an electronic spreadsheet.
- A variety of applications for which MS-Excel can be used include, automating financial statements.
- Data stored in database formats can be accessed through MS-Excel.
- Excel comes across as a powerful and flexible graphical presentation tool.

Start the Microsoft Excel 2010

- Click Start button on the taskbar.
- Click All Programs, scroll down if necessary in the All Programs menu.
- Click Microsoft Office, and click Microsoft Excel 2010.
- Microsoft Excel 2010 is displayed on the screen.
- Microsoft Excel 2010 includes the Ribbon, Quick Access toolbar and Backstage view.

The Ribbon

- “The Ribbon” is the professional term for the Microsoft Word toolbar.
- The Ribbon contains all of the commands you’ll need in order to perform common tasks.
- It contains multiple tabs, each with several groups of commands, and you can add your own tabs that contain your favorite commands.

Some groups have an arrow in the bottom-right corner that you can click to see even more

- commands.
- They are
 - File tab,
 - Home tab,
 - Insert tab,
 - Page Layout tab,
 - Formulas tab,
 - Data tab,
 - Review tab,
 - View tab.

Quick Access toolbar

- The Quick Access toolbar, located above the Ribbon, lets you access common commands no matter which tab you're on.
- By default, it shows the Save, Undo, and Repeat commands.
- You can add other commands to make it more convenient for you.

Backstage view

- The Office Backstage view is where you manage your files and the data about them
 - Creating,
 - Saving,
 - Printing,
 - Sharing files,
 - Inspecting for hidden metadata or personal information, and
 - Setting options.

To create a new blank workbook

- Click the File tab.
- This takes you to Backstage view.
- Select New.
- Select Blank workbook under Available Templates. It will be highlighted by default.

- Click Create.
- A new blank workbook appears in the Excel window.
- When Excel is opened, it opens a blank worksheet.
- An Excel worksheet file is called a workbook.
- A workbook is the Excel worksheet file in which related data and information for a specific project are stored.
- A workbook consists of many worksheets, or multiple layers, which can be used for listing and analyzing data.

To open an existing workbook

- Click the File tab.
- This takes you to Backstage view.
- Select Open.
- The Open dialog box appears.
- Select your desired workbook, then click Open.
- If you have opened the existing workbook recently, it may be easier to choose Recent from the File tab instead of Open to search for your workbook.

Save a New Workbook

- In order to preserve the Workbook for future use, you must save it on the disk.
- The user can use the following method to save a file:
 - Click the File tab.
 - Click Save.
 - Select the location where you want to save the file.
 - Type a name for the workbook, and then click Save.
 - Alternatively, On the Quick Access Toolbar, click Save, or press CTRL+S. to open the Save As dialog box.

Save an existing Workbook as a new Workbook (Save As)

- To prevent overwriting the original Workbook, use the Save As command to create a new file as soon as you open the original Workbook.
- Open the Workbook that you want to save as a new file.

Click the File tab.

- ➤ Click Save As.
- Select the location where you want to save the file.
- Type a name for the Workbook, and then click Save.

Addressing of Cells

- A cell address in a worksheet, such as Excel, identifies the location of the cell in the worksheet.
- A cell address is a combination of column letter and row number of a cell, such as C4 or D8.
- Note: When identifying a cell by its address, the column letter is always listed first followed by the row number.
- In Microsoft Excel, the cell address is mainly used within a formula to get the values of those addresses.
- You can do the cell addressing in three different ways: Relative Referencing, Absolute Referencing and Mixed Referencing.

Manipulation of Cells

- Active cell is indicated by a rectangle boundary over that cell.
- Data entry is accomplished by feeding the data in the active cell.
- A1 is always the active cell in a new worksheet by default, but if you want to move on to another cell for data entry, then you can make that cell active by moving the mouse pointer on it and clicking on it.
- As you type, the data is displayed in the active cell as well as in the formula bar.
- There are three boxes that exist between the Formula Bar and the Name Box.
- The first box with a cross (x) symbol cancels your entry made in the cell.
- The second box with a right mark allows acceptance of data in the cell.
- The third box contains an equal to (=) sign.
- This is the Edit Formula feature that simplifies the calculation tasks.

Entering Text, Numbers and Dates

Entering Text

- Select the cell where the text is to be Entered.
- Enter the alpha-numeric text.
- To accept the information, press 'Enter' or an [Arrow] key.
- To force text to wrap at a specific point in a cell, press [Alt] + [Enter].
- A cell containing text and numbers or only text cannot be used in formulas, even if numbers exist with the alphabetic characters.

Windows

- To accept the information, press [Enter] or an [Arrow] key.
- To force text to wrap at a specific point in a cell, press [Alt] + [Enter].

Entering Numbers

- Numeric cells can be used for calculations and functions.
- A numeric cell may contain numbers, plus (+), minus (-), currency symbol (Rs.).
- Select the cell where the numbers are to be Entered.
- Type the numeric information that should be in the cell.

- HINT: To Enter a fraction, type 0 and press [Space] before Entering the fraction, otherwise, Excel will interpret fraction as a date.
- To accept the information, press 'Enter' or an [Arrow] key.

Entering Numbers as Text

- Text formatted cells are treated as text even when a number is in the cell.
- To Enter number as text, follow the steps given below:
 - From the Home tab, select 'Format' in the Cells category.
 - Click 'Format Cells'.
 - The Format Cells dialog box is now displayed.
 - Select the Number tab.
 - From the Category scroll list, select 'Text'.
 - Click 'OK'.
 - Enter the desired numbers and/or alphanumeric text that should be in the cell.

Entering a Date or Time Manually

- Select the cell where the user wants to Enter the date or time.
- To Enter a date, type the date in one of the following formats: 7/23/2009, 7-23-2009, or JULY 23, 2009.
- To Enter a time, type the time.
- NOTE: To indicate AM or PM, leave a space and press [Shift] + [A] or [P], respectively.
- To accept the information, press 'Enter'.

Entering the Current Date or Time Automatically

- To Enter today's date: Press [Ctrl] + [;].
- To Enter the current time: Press [Ctrl] + [Shift] + [;].
- To accept the information, press 'Enter'.

Editing Worksheet Data

- There are two ways to edit a worksheet:
 - Edit the data itself, such as the labels, numbers and formulas that make up a worksheet.
 - Edit the physical layout of the worksheet, such as adding or deleting rows and columns, widening or shrinking the width or heights of rows and columns.

Editing data in a cell

- To edit data in a single cell, follow these steps:
 - Double-click the cell that contains the data you want to edit.
 - Excel displays a cursor in your selected cell.
 - Edit your data by using the Backspace or Delete key or by typing new data.
 - If you click a cell, Excel displays the contents of that cell in the Formula bar.
 - You can click and edit data directly in the Formula bar, which can be more convenient for editing large amounts of data.

Cut, copy and paste

- You can copy and move cells in two ways:
 - By using cut, copy and paste.
 - By dragging with the mouse.

Copy and Paste

- When a user copies a cell, he is duplicating the cell's contents, when he pastes them to a new location.
- Select the cells one wants to copy and Click the Copy Button from the Home tab or use Shortcut Keys: Ctrl+C.
- The cells marked for copying is marked with an animated border.
- Choose the cell location where the copied content is to be pasted.
- Click the Paste Button from the Home tab or use Shortcut Keys: Ctrl+V;
- The cells are copied to the destination cell/cells.

Cut and Paste

- Select the cells to be moved and Click the Cut Button from the Home tab or use Shortcut Keys: Ctrl+X.
- The cells marked for cutting is marked with an animated border.
- Choose the cell location where one wants to move the cur data.
- Click the Paste Button from the Home tab or use Shortcut Keys: Ctrl+V;
- The cells are moved to the destination cell/cells.

Copying and Moving Cells by Dragging

To Drag and Drop Cells

- Select the cells you want to move.
- Position your mouse on one of the outside edges of the selected cells.
- The mouse changes from a white cross Cursor to a black cross with 4 arrows Cursor.
- Positioning the mouse to drag and drop cells.
- Click and drag the cells to the new location.
- Release your mouse, and the cells will be dropped there.

To use the Fill Handle to Fill Cells

- Select the cell or cells containing the content you want to use.
- You can fill cell content either vertically or horizontally.
- Position your mouse over the fill handle so the white cross Cursor becomes a black cross Cursor.
- Positioning the mouse to use the fill handle.
- Click and drag the fill handle until all of the cells you want to fill are highlighted.
- Release the mouse, and your cells will be filled.

Inserting and Deleting Rows, Column

Inserting Rows and Columns

- After data has been Entered, a user might need to add or delete extra rows or columns, to Enter additional data.
- To add a row or column, follow these steps:
 - Click the Home tab.
 - Click the row or column heading where one wants to add another row or column.
 - Click the 'Insert from Cells' category.
 - Select the 'Insert Sheet Rows/Insert Sheet Columns' option.
 - Inserting a row adds a new row above the selected row.
 - Inserting a column adds a new column to the left of the selected column.

Deleting Rows and Columns

- To delete a row or column, follow the steps given below:

- Click the Home tab.
- Click the row or column heading that is to be deleted.
- Click the 'Delete' option from the Cells category.
- Select the 'Delete Sheet Rows/Delete Sheet Columns'.
- Deleting a row or column deletes any data stored in that row or column.

Changing Cell Height and Width

- The data that you enter in the cells is sometimes too long for the column width to accommodate.
- You can increase the column width and row height to display the entire cell entry.

Changing Column Width

- A user can change any column width or row height in the worksheet to improve the readability as and when deemed necessary.
- To manually change the width of columns, position the mouse pointer on the right boundary of a column heading until it turns into a double-sided arrow.
- Drag left or right until the desired column width is achieved.
- To set a column width to a specific setting, Click 'Format'.
- Select 'Column Width' on the Home tab.
- Type the exact width needed in the Column Width dialog box.
- Click 'OK'.
- To automatically change the column width depending on the data Entered, use AutoFit.
- Double-click the boundary on the right side of the column heading. (Or)
- Click 'Format'.
- Choose 'AutoFit Column Width' on the Home tab.

Changing Row Height

- To manually change the row height, position the mouse pointer on the bottom boundary of the row heading until it turns into a double-sided arrow.
- Drag up or down desired column width is achieved.
- To set a row height to a specific setting, Click Format.
- Select 'Row Height' on the Home tab.
- Type the exact height needed in the Row Height dialog box.

- Click 'OK'.
- To automatically change the height of a row so it fits the tallest entry in the row, use AutoFit.
- Double-click the boundary at the bottom of the row heading. (Or)
- Click Format.
- Select 'AutoFit Row Height' on the Home tab.

Formulas and Function

What is a Formula?

- Formulae calculate a list of numbers (or values) in a specific order.
- A formula in Microsoft Excel always begins with an equal sign (=).
- The equal sign tells Excel that the following numbers or cells make up a formula.
- There are seven basic mathematical operators which can be used for calculations.

| Operator | Operation |
|----------|------------------|
| * | Multiplication |
| + | Addition |
| - | Subtraction |
| / | Division |
| \ | Integer Division |
| ^ | Exponentiation |
| Mod | Modulus |

Using Formulas

- The user clicks the cell that he wants to enter the formula.
- Types = (an equal sign).
- Clicks the Function Button.
- Select the formula you want and step through the on-screen instructions.

Basic formula with an example

- ADDITION cell A1 to A10 = sum (A1: A10).
- AVERAGE cell A1 to A10 = average (A1: A10).
- MAXIMUM cell A1 to A10 = max (A1: A10).
- MINIMUM cell A1 to A10 = min (A1: A10).

Function

Using basic functions

- Worksheets generally have a large number of integrated functions for processing data.
- To enter formula that contains a function, follow the steps:
 - Click on the cell in which you want to enter the formula.
 - To type the formula with the help of function, click on Auto Sum button on the Home tab in editing group.
 - Click on the down arrow, head right next to the Functions box to invoke a drop-down list of available functions, which includes SUM, COUNT, AVERAGE, MAX and so on.
 - Click on the function you want you want to add to the formula.
 - If the function does not appear in the list, click on more Functions.
 - Enter the arguments for the function.
 - When you complete the formula, press the Enter key.
 - The other convenient way of choosing functions is by using the Insert function that appears on the Formulas Tab.
- Functions are small programs that return a value based on some calculation, comparison or evaluation.
- All function names are followed by a pair of parentheses, which are used to enclose the argument or arguments required by the function.
- A comma is used to separate each argument.
- Excel contains about 250 readymade functions.
- The functions are categorized as follows:
 - Arithmetic functions that offer basic tools to process numerical data.
 - Statistical functions that have analysis tools, averaging tools.
 - Date functions that process and convert dates.
 - Logic functions that process logic data (AND, OR, etc.).
 - Financial functions that process monetary data.
 - Readymade functions, some of which are being introduced in the coming up section.

Printing of Spreadsheet

Printing of Work Sheet

- There are several ways to print your work.
 - Click the Print button on the Quick Access toolbar.
 - Choose the Print button in the Print Preview window.
 - Choose the Print button in the File tab.
 - Print the workbook using keyboard shortcut key “Ctrl+P”.
 - A typical Excel Workbook can contain many sheets, each sheet can further have huge amount of data.
 - So, the first thing before using any of the above three methods, you must select an area of the worksheet which you want to print.
- Print Preview combined with the Print window to create the Print pane, which is located in Backstage view.

Printing a workbook

- Click the File tab.
- This takes you to Backstage view.
- Select Print.
- The Print pane appears, with the print settings on the left and Print Preview on the right.
- Click the Print button.

Quick Printing

- Printing an Excel 2010 worksheet is a very simple task.
- The quick print option can be used to print a single copy of the entire worksheet.
- User can use the default print settings to print a single copy of all the cells in the current worksheet.
- Simply add the Quick Print button to the Quick Access toolbar (by clicking the Customize Quick Access Toolbar button and then clicking Quick Print on its drop-down menu).
- When a user clicks the Quick Print button, Excel routes the print job to the Windows print queue, which sends the job to the printer.
- While Excel sends the print job to the print queue, Excel displays a Printing dialog box to inform of its progress (displaying such updates as Printing Page 2 of 3).

- Once the entire print job has been sent to the printer, the Excel dialog box disappears.
- When you print, the following options appear in the print menu :
 - Next/Previous: View the next or previous page.
 - Zoom to Page: Magnify or reduce the view of the page.
 - Print: Print the pages now.
 - Setup: Display the Page Setup dialog box.
 - Show Margins: Display or hide the margin and column width handles.

Print Preview

- By previewing your sheet, you can see each page exactly as it will print, with the correct margins and page breaks and the headers and footers in place by clicking the Print Preview toolbar button.
- Drag the handles to adjust the page margins, header and footer margins and column widths.
- Click to magnify a portion of the page.
- Click again to display the whole page.

UNIT - 5

Communication Using the Internet

Basic of Computer Networks

Introduction

- The advent of computer systems has revolutionized the workplace and redefined operational practices.
- The use and deployment of computer systems, computer systems and information technology applications in every aspect of business is now common.
- Computer systems connected over a Web-based environment or an intranet-based network can communicate with each other.
- Varied connectivity and access technologies with computing interfaces facilitate communication of employees with business partners, suppliers, customers, Government regulators and other stakeholders.
- This chapter introduces you to the basics of computer system communication and internet.
- Communication is the most popular use of the Internet, with email topping the list of all the technologies used.
- Some of the types of communication technologies used also include email Discussion Groups, Usenet News, Chat Groups etc.
- These are unique to networked computer system environments and have come into wide popularity because of the Internet.

What is Networking?

- Networking is the practice of linking two or more computing devices together for the purpose of sharing data.
- Networks are built with a mix of computer system hardware and computer system software.
- A computer system network is a group of computer systems that are connected to each other for the purpose of communication.

Types of Networks

- Networks may be classified according to a wide variety of characteristics.
- Several types of networks exist, from small two-station arrangements, to networks that interconnect offices in many cities:
 - Local Area Network,
 - Wide Areas Network,
 - The Internet,
 - Intranets,

- ➤ Extranets etc.

Computer system Network

- A computer system network is a group of interconnected “network capable devices”.
- Network Equipment's
 - Network Interface Card (NIC),
 - Hub (Repeaters),
 - Switch,
 - Router etc.

Network Interface Card (NIC)

- A network interface card (NIC) is a circuit board inside the computer system.
- This card is installed in a computer system so that the computer system can be connected to a network.
- Personal computer systems and workstations use NIC to connect to local area networks.
- A LAN typically contains a network interface card specifically designed for the LAN transmission technology, such as Ethernet or Token Ring.
- Network interface cards provide a dedicated, full-time connection to a network.
- Most home and portable computer systems connect to the Internet through a dial-up connection or a broadband connection.
- The modem provides the connection interface to the Internet Service Provider.

Hub

- A network hub or repeater hub is a device for connecting multiple twisted pair cables or fiber optic Ethernet devices.
- When a packet arrives at one port, it is copied to all the ports of the hub for transmission.

Switch

- A network switch is a small hardware device that joins multiple computer systems together within one local area network (LAN).
- A switch stores the MAC Address of every device which is connected to it.

Router

- A network router is a network device with interfaces in multiple networks whose task is to copy packets from one network to another.

- A network router connects at least two networks, commonly two LANs or WANs or a LAN and its ISP(Internet Service Provider) network.

Local Area Network (LAN)

- A Local Area Network (LAN) is a high-speed communication system, designed to link computer systems and other data processing devices together within a small geographic area, such as a workgroup, department or building.
- This allows users to electronically share vital computing resources such as expensive hardware (e.g. printers and CD-ROM drives), application programs and information.
- Local Area Networks implement shared access technology.
- This means that all the devices attached to the LAN share a single communications medium, usually a coaxial, twisted-pair, or fiber-optic cable.
- A physical connection to the network is made by putting a network interface card (NIC) inside the computer system and connecting it to the network cable.
- Once the physical connection is in place, the network software manages communications between stations on the network.
- To send messages to and from computer systems, the network software puts the message information in a packet. (If the message to be sent is too big to fit into one packet, it will be sent in a series of packets.).
- In addition to the message data, the packet contains a header and a trailer that carry special information to the destination.
- One piece of information in the header is the address of the destination.
- The NIC transmits the packet onto the LAN as a stream of data represented by changes in electrical signals.
- As it travels along the shared cable, each NIC checks its destination address to determine if the packet is addressed to it.
- When the packet arrives at the proper address, the NIC copies it and gives its data to the computer system.
- Since each individual packet is small, it takes very little time to travel to the ends of the cable.
- After a packet carrying one message passes along the cable, another station can send its packet.
- In this way, many devices can share the same LAN medium.

The following characteristics differentiate one LAN from another

- Topology:
 - The geometric arrangement of devices on the network.

For example, devices can be arranged in a star, a ring or in a straight line.

- ● Protocols:
 - The rules and encoding specifications for transferring data.
 - The protocols also determine whether the network uses a peer-to-peer or client/server architecture.
- Media:
 - Devices can be connected by twisted-pair wire, coaxial cables or fiber optic cables.
 - Some networks (wireless) do without connecting media altogether, instead communicating via radio waves.

LAN Transmission Methods

- LAN data transmissions fall into three classifications:
 - Unicast
 - ❖ A transmission to a single interface card.
 - Multicast
 - ❖ A transmission to a group of interface cards on the network.
 - Broadcast
 - ❖ A transmission to all interface cards on the network.
 - ❖ In each type of transmission, a single packet is sent to one or more nodes.

Transmission Technology

- It refers to the technology by which data from source is transmitted to the destination.
- LAN is basically a Broadcast Channel that is shared by all the computer systems on the network.
- Data transfer rate in LAN these days varies from 10 Mbps to 1000 Mbps (1Giga bits per second) or even more.

Topology

- One commonly used topology is a Bus topology.
- In a Bus (a Linear Cable) network only one computer system is allowed to transmit at any instant.
- Other computer systems just wait.
- When two or more computer systems want to send data at the same time, an arbitration method is required to resolve the conflict.

The second type to topology follows a star pattern and is known as Star topology.

- ● A hub is required to connect the computer systems.
- The Hub can be used to connect 4/8/12/24 Computer systems.
- In more than 90% of the LAN installations, this topology is used.
- Most commonly used standard, defined for LAN is IEEE 802.3, which is popularly known as Ethernet.
- It defines the types of cables and connectors that can be used.
- The data transmission rate is usually 10 Mbps.
- Ethernet which uses thick Coaxial cable is called Thick Ethernet and can be used to create a LAN segment of 500 meters. It is also called 10Base-5 network.
- Thin Ethernet or 10 Base-2 LAN is implemented through thin coaxial cable and its LAN segment is limited to 185 meters.
- BNC(Bayonet Neill-Concelman) connectors were used in this network.
- These days UTP (Unshielded Twisted Pair) cable is used in more than 90% of the LAN installations.
- The advantage of this implementation is that it is easy to maintain and cost effective.
- The segment size is limited to 100 meters and computer systems are connected to a central hub or switch using star topology.
- Base-T standard uses UTP category 3 cable and RJ 45 connectors.
- With the UTP CAT5 (category 5) cable and Switch, It is possible to achieve a data transfer rate of 100 Mbps in LANs.
- This implementation is called 100 Base-T LAN.

Wide Area Network (WAN)

- A Wide Area Network (WAN) is a geographically dispersed telecommunications network.
- The term, WAN, distinguishes a broader telecommunication structure from a local area network (LAN).
- A wide area network may be privately owned or rented, but the term usually connotes the inclusion of public (shared user) networks.
- An intermediate form of network in terms of geography is a metropolitan area network (MAN).
- Computer systems connected to a wide-area network are often connected through public networks, such as the telephone system.
- They can also be connected through leased lines or satellites.
- Wide area networks(WANs) combine the continuous error detection and correction techniques included in synchronous communications with robust network problem determination and data routing to form powerful backbones that ensure high-quality, reliable service for end users.
- The largest WAN in existence is the Internet.
- These networks allow multiple users to access a variety of host computer systems simultaneously through the same physical medium, while separating each user's session so that no user is aware of another on the network.
- Wide area networks also operate at speeds much higher than the 19,200-bps limit of normal voice-grade telephone lines.
- It is possible to enter data for sales and transactions at the point-of-sale terminals using WANs.
- It is also possible to centralize this data in a computer system for processing or reporting purposes.
- For example, Supermarkets in advanced countries connected through WANs can send all sales data from their remote sale centers and the central purchase and distribution center can monitor all the sale figures on a day-to-day basis.

Characteristics of WAN

- Computer systems connected to WAN are often connected through public networks, such as the telephone system (through network service provider).
- A WAN spans a long distance.
- Transmission across a WAN is usually slower than on a LAN.
- WANs rarely use broadcast, multi-access technologies.
- WANs are usually composed of leased lines and telecommunications circuits.

- WANs are not usually used to connect computer system workstations or servers.
- WANs are often used to interconnect data centers.

WAN - Point-to-Point Links

- A point-to-point link provides a single, pre-established WAN communications path from the customer premises through a carrier network, such as a telephone company, to a remote network.
- Point-to-point lines are usually leased from a carrier and these are called leased lines.
- For a point-to-point line, the carrier allocates pairs of wire and facilitates hardware to the user's line only.
- These circuits are generally priced, based on bandwidth required and distance between the two connected points.
- Point-to-point links are generally more expensive than shared services such as Frame Relay.

WAN - Circuit Switching

- Circuit switching is a data transfer method that involves establishing a dedicated circuit within a network.
- A circuit made of communication lines, between the sending nodes and receiving node, is reserved at the time of communication, so that data can be sent over it.
- The circuit is freed again when the transmission is complete.
- Integrated Services Digital Network (ISDN) is a good example of circuit switching.
- When a router has data for a remote site, the switched circuit is initiated with the circuit number of the remote network.
- In the case of ISDN circuits, the device actually places a call to the telephone number of the remote ISDN circuit.
- When the two networks are connected and authenticated, they can transfer data.
- When the data transmission is complete, the call can be terminated.

WAN- Packet Switching

- Packet switching refers to protocols in which messages are broken up into small packets before they are sent.
- Each packet is transmitted individually across the net.
- The packets may even follow different routes to the destination, depending on the type of packet switching.

Each packet has header information, which enables to route the packet to its destination.

- • At the destination, the packets are reassembled to form the original message.

Concept of Internet

- An individual or organization controls the LAN or private WAN network.
- The Internet is a conglomerate of networks and is not owned by any individual or group.
- There are, however, several major International organizations that help to manage the Internet so that everyone follows the same rules.
- The services of an Internet Service Provider (ISP) is necessary for those who want to connect to the internet.
- An ISP is a company that provides the connections and support to access the Internet.
- It can also provide additional services such as Email and web hosting.
- There are, however, several major International organizations that help to manage the Internet so that everyone follows the same rules.
- Whoever wants to connect to Internet must contact Internet Service Provider (ISP).
- An ISP is a company that provides the connections and support to access the Internet.
- It can also provide additional services such as Email and web hosting.
- You connect to an ISP by using a PC modem to connect to your ISP's modems.
- Your modem connects to a single modem among a bank of modems at your ISP.
- This is called a dial-up connection.
- Users within corporations and large organizations typically connect to an ISP via a high-speed link.

Applications of Internet

Application of Internet in Everyday life

- People use the internet to make a living.
- It is essential to many businesses that want to increase brand exposure or sell a product/service.
- They also use the web to help them work better.
- There is a market of webmasters, entrepreneurs and small/big businesses out there that are willing to pay to boost their revenue.
- Consultancies, design firms, freelancers, enterprise software, business-specific tools/apps and services use the internet to market their products.

Collection of Information

- For this purpose, special websites, called search engines are available on the Internet to search information about every topic in the world.
- The most popular search engines are google, yahoo, bing etc.
- Usually, the information on the Internet is free of cost.
- The information on the Internet is available 24 hours a day.

News

- A user can get latest news of the world on the Internet.
- Most of the newspapers of the world are also available on the Internet.
- They have their websites from where one can get the latest news about the events happening in the world.
- These websites are periodically updated or they are immediately updated with latest news when any event happens around the world.

Searching Jobs

- A user can search different types of jobs all over the world, Most of the organizations/ departments around the world, advertise their job vacancies on the Internet.
- The search engines are also used to search the jobs on Internet.
- One can also apply for the required job through Internet.

Advertisement

- Today, most of the commercial organizations advertise their product through Internet.

- It is very cheap and efficient way for the advertising of products.
- The products can be presented in a very attractive and beautiful way to the people around the world.

Communication

- Internet users can communicate with each other through Internet around the world.
- Users can talk by watching one another; just as one was talking with his friend in his drawing room.
- For this purpose, different services are provided on the Internet such as; audio chats, video chats, Video, conferencing, E-mail, Internet telephony etc.

Entertainment

- Internet also provides different type of Entertainments to the people.
- Internet users can play games with other people in any part of the world.
- Similarly, one can see movies, listen to music etc.
- One can also make new friends on the Internet for enjoyment.

Online Education

- Internet provides the facility to get online education.
- Many websites of different universities provide lectures and tutorials on different subjects or topics.
- Students using internet also download these lectures or tutorials, if it is legally allowed by the publisher of these lectures or tutorials.
- One can listen to these lectures repeatedly and gain a lot of knowledge.
- It is very cheap and easy way to get educated.

Online Results

- Today, most of the universities and education boards provide results on the Internet.
- The students can view their results from any part of country or the world.

Online Airlines and Railway Schedules

- Many Airline companies and India Railway provide their schedules of flights and trains respectively on the Internet.
- They also provide reservation facilities over the internet.

Online Medical Advice

- Many websites are also available on the Internet to get information about different diseases.
- One can also consult a panel of online doctors to get advice about any medical problem.
- In addition, a lot of material is also available on the Internet for research in medical field.

E-Mail

- The concept of sending electronic text messages between parties in a way is analogous to mailing letters or a memo that predates the creation of the Internet.
- Internet e-mail may travel and be stored unencrypted on many other networks and machines out of both the sender's and the recipient's control.
- Today one can send pictures, video clippings and attach files on e-mail.
- The Internet has made possible entirely new forms of social interaction, activities and organizing, thanks to its basic features such as widespread usability and access.
- Social networking websites such as Facebook, MySpace and Orkut have created a new form of socialization and interaction.
- Users of these sites are able to add a wide variety of items to their personal pages, to indicate common interests, and to connect with others.
- It is also possible to find a large circle of existing acquaintances, especially if a site allows users to utilize their real names, and to allow communication among large existing groups of people.

Connect to the Internet

- Two main ways to connect to the Internet.
 - High Speed/DSL,
 - ADSL,
 - Wireless Connection (Wi-Fi).

High Speed (Cable/DSL) Internet Connection

- Digital subscriber line (DSL) is a technology that provides Internet access by transmitting digital data over the wires of a local telephone network.

ADSL

- Asymmetric digital subscriber line (ADSL) is a type of digital subscriber line (DSL) technology, It enables faster data transmission over copper telephone lines.

Wireless Internet Connection (Wi-Fi)

- DSL/ADSL modems can be connected to wireless transmission enabling devices such as Access points.

How To Troubleshoot Internet Connection Problems

- Basic checks to ensure connectivity.
- Hardware check.
- Ensure that the modem is switched on.
- Ensure that all physical connections are intact.
- Ensure that the telephone wires and the network cables should be fixed firmly in the appropriate sockets.

What is ISP?

- An Internet service provider (ISP) or an Internet access provider (IAP), primarily offers its customers access to the Internet.
- Services provided by an ISP.
- Provide Internet Access.
- Provide Internet e-mail services.
- Allows users to communicate with one another through Internet Telephony Services.
- Voice calls/video calls made over the internet are examples of Internet Telephony communication services and Remote storage of data files.
- Provides network infrastructure and other related facilities for hosting websites.

The major ISPs in India are

- BSNL, MTNL,
- Sify,
- Tata Indicom,
- Reliance and
- Airtel.

Knowing the Internet

- The Internet contains billions of web pages created by people and companies from around the world, making it a limitless location to locate information and Entertainment.
- The Internet also has thousands of services that help make life more convenient.
- For example, many financial institutions offer online banking that enables a user to manage and view their account online.

The Internet basics

- The Internet is accessed by a user using a computer with a modem which has a dialup/broadband connection.
- Internet can also be accessed through mobile devices/tablets using 2G/3G/4G connections.
- A user can explore the World Wide Web (WWW), using a computer browser.
- This is also referred to as surfing the internet.

UNIT - 6

WWW and Web browser

WWW and Web Browser

Introduction

- The World Wide Web is a way to share resources with many people at the same time, even if some of these resources are located geographically apart.
- The Web is the most popular Internet service next to e-mail, but it accesses a larger quantity and greater variety of data than any other service on the Internet.
- World Wide Web is a huge collection of hypertext pages on the Internet.
- A web browser is a software application for retrieving, presenting, and traversing information resources on the World Wide Web.
- An information resource is identified by a Uniform Resource Identifier (URI) and may be a web page, image, video, or any other piece of content.
- Hyperlinks present in resources enable users to easily navigate their browsers to related resources.

World Wide Web

- The World Wide Web (www) is simply referred to as Web.
- It is the latest addition to the Internet to exchange information.
- The Web is vast network of HTTP servers (Web servers) that store documents called Web pages and these are accessible on the Internet.
- It is the easiest way to search and to get information on the Internet.
- The World Wide Web (WWW) is a uniform method of accessing and retrieving information on the Internet.

What is the Web?

- The Internet is a collection of computer networks that connects millions of computers around the world.
- The World Wide Web is a collection of electronic documents linked together like a spider web and accessed through the internet.
- These documents are stored on computers called servers located around the world.
- The Web has evolved into a global electronic publishing medium and a medium for conducting electronic commerce.

Web Browsing Software's

- Web browser is software, which provides interface to WWW.
- This software runs on user's machine. Web browser is available in two formats: Graphical format and Text format.
- Once a client has connected to a service on a computer, it accesses the service using a specific protocol.
- Protocols are rules that describe how the client and server will have their conversation.
- Every Web server on the Internet conforms to the Hypertext Transfer Protocol (HTTP).
- Example: Internet Explorer, Google chrome, Mozilla Firefox etc.,

What is a Browser?

- Users type a Web address or URL into the browser's address bar to view a website.
- This action retrieves the web pages from a website.
- A web page is an electronic document written in a computer language called HTML (Hypertext Markup Language).
- Want to delete one line
- All Browsers basically work the same way.
- Familiarity with one would enable a user to easily work with other browsers.
- A web browser is a computer program, which resides on a home computer that provides a graphical interface to the web.
- A graphical interface means that all a user needs to do in most cases to navigate the web is to point and click on words or pictures on the screen.
- All major web browsers allow the user to open multiple information resources at the same time, either in different browser windows or in different tabs of the same window.

Website

- A website is a collection of one or more web pages that relate to a common theme.
- The first page of any website is called a home page.
- A home page will act as an index for the website.
- The hyperlinks in the home page will allow a user to read the other pages on the website.
- A hyperlink is a pointer pointing to the existence of another page which can be accessed on the website.

- While the primary purpose of browser software is to view website pages, different browsers offer different features and may operate differently.

Web Browsing software's - Internet Explorer

- Internet Explorer is a series of graphical web browsers developed by Microsoft and included as part of the Microsoft Windows line of operating systems, starting in 1995.
- The latest official release, Internet Explorer 11 (IE11) is made available for Windows 7 and 8.1.

The parts of Internet Explorer 11 are explained below

Back and Forward buttons

- The Back and Forward buttons allow you to move between sites you have recently visited.
- You can also move back and forward one page at a time by pressing key on your keyboard Alt+left arrow, Alt+right arrow respectively.

Address Bar

- Searching is integrated into Address Bar.
- The address bar is also a search bar.
- You can use it to navigate to different websites or perform a web search.
- Suggestions will appear below the address bar as you type, making navigation quick and easy.

Home Button

- Click here to navigate to your home page.
- You can also use keyboard shortcut Alt+Home.

Favorites

- Click here to access the Favorites, Feeds, and History tabs.
- From there, you can view and organize your favorites, RSS feeds, and browsing history.

Tools Button

- Click here to open the Tools menu.
- From there, you can view your downloads, customize your settings, and much more.

Toolbar Menu

- Right-click the title-bar, the top-most strip across Internet Explorer, to see the Tool bar menus.
- From here you can open the Menu Bar, Favorites Bar, Command Bar, and Status Bar.

Tabs

- Internet Explorer allows you to view multiple websites in the same window using tabs.
- Just click a tab to view that page.
- To create a new tab, click the New tab button.
- Alternatively, press Ctrl+T on your keyboard.

Document area

- It displays the Web page you are currently viewing
- You can change the look and layout of web browser.
- To configure web browser follow the steps listed below :-
 - Click the Tools button and click Internet Options.
 - The Internet Options Dialog Box will be displayed.
 - Homepage is the first webpage that will be displayed when you open your browser.
 - To set a home page, type the address of the page which you want to make homepage in the Homepage Address Text Box in the general tab of internet options.
 - Then click 'Apply'.
 - History folder contains links to recently viewed web pages.
 - You can specify the number of days to keep pages in history.
 - You can also delete history by clicking on "Delete.." button.
 - To change Text and background color, click on the "Colors" button.
 - The "Colors Dialog Box" appears where you can select the desired color for text.
 - To change the font of text on the webpages, click on the "Fonts" Button.
 - The "Font Dialog Box" appears where you can select the desired font for the text.

What is Search Engine?

- A search engine is software program or script available through the Internet that searches documents and files for keywords and returns the results of any files containing those keywords.
- The most popular and well known search engine being used by millions of users is Google search engine.
- Because large search engines contain millions and sometimes billions of pages, many search engines not only just search the pages but also display the results depending upon their importance.
- This importance is commonly determined by using various algorithms.

Popular Search Engines / Search for content

- The top five search engines are:
 - Google Search,
 - Yahoo! Search,
 - Bing Search,
 - AOL Search,
 - Ask.com Search.
- Internet search sites can search enormous databases of Web pages, using titles, keywords or text.
- You can maximize the potential of search engines by learning how they work, and how to use them quickly and effectively.
- Search engines are valuable tools.
- They allow you to find information on the Web when you don't know the addresses for specific websites.
- Use search engines to find things on the Web just like you would use a phone book to find things in your community.
- To look for a business, type its name into the search box, and get a list of descriptions and links to a variety of websites in response.
- Type in a subject (Taj hotel) or a product (lawnmower), and you get a different list.
- Search engines let you type in whatever term you wish to, but most of them also provide a directory with a list of subjects, so you can browse through the categories for ideas.
- Sites are ranked (using different formulas) so those most relevant appear closest to the top.

- Google also hosts “sponsored links” from companies who pay to have their sites included – these may or may not be of use to you.
- To help focus your search, try adding some more detailed terms.
- “Delhi national parks” or “Delhi family hostels” will bring you better results than “Delhi” alone. (Tip: you do not need to use capital letters, commas or dashes – Google ignores all of these).

Using Favorites Folder

- Favorites Menu, allows you to create a list of favorite pages and organize them into folders.
- Once you have done that, then, to go to a favorite page, you just need to select the page you want from the Favorites menu.
- To add the web page to your favorite list, follow the given steps :-
 - Click the Favorites menu and select Add to Favorites, or, click Add to Favorites on the Favorites tab.
 - The Add Favorite Dialog Box appears.
 - In the Name textbox, change the name of page, if you desire.
 - In create in box select the location of the favorite page, if you wish to organize favorite pages in folders.
 - Click the Add button.
- Your favorite page will be added to Favorite menu or under a submenu as you created.

Downloading Web Pages

- Downloading is the process of taking a file from a computer system on the Internet and saving that file on your own computer system.
- You can download any material which can be movie clips, songs; text files/selected text, software, freeware etc.
- To download a file, you need to click on an appropriate link given for this purpose, which automatically starts the download process.
- Sometimes, it is necessary to hold down the shift key while clicking on a link to begin the download.
- Your Downloads folder will be selected by default.
- After starting the download, a dialog box will prompt the user to choose a destination place to download the file.
- This download location can be on your computer systems hard-drive and pen-drive.
- After choosing the desired destination and clicking Save, the file will begin to download.

Printing Web Pages

- To print a Web page that has follows these steps:
 - Open Your Web Page - Have the Web page that you want to print open in your browser.
 - Click Tool button.
 - Click Print - After this menu drops down click on the word "Print".
 - In the printer dialog box, click the print button and your printer will start printing the page.
 - Some web pages are divided into multiple sections called frames.

Surfing the web

- While browsing/surfing the Internet, you will come across many web pages that you really like.
- Maybe it's a recipe you want to make, a picture you like or a tutorial from this Web site.
- The currently open web page can be saved and/or be printed for later use.
- For example, if you have accessed a long and useful text file on the net, you may want to save it to read it off-line later on you can also print it out later as well.

To save a Web Page

- Check to make sure that the whole file is loaded.
- Watch the indicator at the bottom of your browser, or press Ctrl+End keys simultaneously to take you to the bottom of the document to see if it is all there.
- Click Tool button and then click File ->Save As.

Understanding URL

- For locating any document on the WWW, a unique address known as a Uniform Resource Locator (URL) is required.
- It consists of three parts: protocol name, server address and document location within the server's space.
- When you connect to <http://www.nielit.in> to read a page, you are a user sitting at a client's machine.
- You are accessing the NIELIT Web server.
- The server machine finds the page you requested and sends it to you.
- Clients that come to a server machine do so with a specific intent, so clients direct their requests to a specific software server running on the server machine.

Domain Name

Definition

- A domain name is a unique name that identifies a website.
- For example, the domain name of NIELIT is "nielit.in."
- Each website has a domain name that serves as an address, which is used to access the website.
- Whenever a user visits a website, the domain name appears in the address bar of the web browser.
- Some domain names are preceded by "www" (which is not part of the domain name), while others omit the "www" prefix.
- All domain names have a domain suffix, such as .com,.edu, .net, or .org etc.
- The domain suffix helps identify the type of website the domain name represents.
- For example, ".com" domain names are typically used by commercial website, '.edu' domain names are used by educational institutions, '.biz' domain names are used by business entities, while ".org" websites are often used by non-profit organizations.
- Some domain names end with a country code, such as '.in' (India), '.co.in'(india), '.lk' (Sri Lanka),".uk" (United Kingdom), ".us" (United States of America) etc., which helps identify the location and audience of the website.
- There are domain names such as '.gov.in', '.nic.in' etc. which gives the user an idea of the ownership of the sites as well as location of the websites.
- NOTE: When a user access a website, the domain name is actually translated to an IP address, which defines the server where the website located.
- This translation is performed dynamically by a service called DNS.

Domain Name vs URL

- New computer users often confuse domain names with universal resource locators, or URLs, and Internet Protocol, or IP, addresses.
- This naming convention is analogous to a physical address system.
- People find web pages in a manner similar to the way that they use maps to find physical locations.
- If the Internet is like a phone book, and a web page is like a physical building, the URL would be the precise street address of that building.
- The IP address would be like the car that travels to its destination.

IP Addresses

- An Internet Protocol, or IP, address is different from a domain name.
- The IP address is an actual set of numerical instructions.
- It communicates exact information about the address in a way that is useful to the computer but makes no sense to humans.
- The domain name functions as a link to the IP address.
- Links do not contain actual information, but they do point to the place where the IP address information resides.
- It is convenient to think of IP addresses as the actual code and the domain name as a nickname for that code.
- A typical IP address looks like a string of numbers.
 - Example: 232.17.43.22.
- However, humans cannot understand or use that code.
- To summarize, the domain name is a part of the URL, which points to the IP address.

How do Domains Work?

- Domain names work because they provide computer users with a short name that is easy to remember.
- Users Enter web addresses into the URL field at the top of their browser's page from left to right.
- The domain name itself is read from right to left according to the naming hierarchy.
- This link provides directions to the network, which ultimately results in a successful page load at the client end of the transaction.
- The domain name 'www.nielit.in', has three essential parts:
 - .in - This is the top-level domain.
 - .nielit. - This is a sub-domain.
 - www. - This is a sub-domain prefix for the World Wide Web.
 - .com.

Using e-Governance Website

- e-Governance is a digital interaction between a Government and citizens (G2C), Government and businesses/commerce/e-Commerce (G2B), and between Government agencies (G2G), Government-to-Religious Movements / Church (G2R), Government-to-Households (G2H).
- This digital interaction consists of Governance, information and communication technology (ICT), business process re-engineering (BPR), and e-citizen at all levels of Government (city, state/province, national, and international).
- The National e-Governance Plan of Indian Government seeks to provide the impetus for long-term growth of e-Governance within the country.
- The plan seeks to create the right Governance and institutional mechanisms, set up core infrastructure, formulate policies and implement a number of Mission Mode Projects at the center, state and integrated service levels.
- This will help to create a citizen-centric and business-centric environment for Governance.

UNIT - 7

Communication and Collaboration

Basics of Electronic Mail

Introduction

- The Internet is often referred as an excellent tool for facilitating collaboration between geographically distant people.
- Such collaboration occurs in a wide variety of areas including scientific research, software development, conference planning, political activism, and creative writing.
- The Internet offers one of the most exciting and effective ways to teach students how to both communicate and collaborate by connecting teams of students with other classrooms around the world.
- The creation of “Tele-communities” can unite students and teach them to work cooperatively.
- Collaborative learning becomes even more significant when the students who are working together are from different nations with varied cultures, histories and socio-political beliefs.

What is an electronic mail?

- E-mail is a method of exchanging digital messages, designed primarily for human use.
- Email much the same as a letter, only that it is exchanged in a different way.
- Email, is the transmission of text-based messages between networked computer systems.

Concept of E-mail model

- E-mail systems are based on a store-and-forward model in which e-mail computer server systems accept, forward, deliver and store messages on behalf of users, who only need to connect to the e-mail infrastructure, typically an e-mail server, with a network-enabled device (e.g. a personal computer system) for the duration of message submission or retrieval.

Email Addressing

- Like a postal address, an e-mail address specifies the destination of an electronic message.
- An Internet e-mail address looks like this: user name@domain name.
- The user name is a unique name that identifies the recipient.
- The domain name is the address. Many people can share the same domain name.
- E-mail is sent and received through electronic "post offices" known as mail servers.
- To read the e-mail, the user must retrieve it from the mail server.
- Once the user enters the address of the recipient, compose the message, and click Send, the e-mail software handles the delivery.
- If the message does not reach its destination the first time, the mail server sends it again.

- If the message is not delivered, the user usually receives a message explaining the problem, along with the full text of the original message.
- The user can correct the problem-usually an incorrect e-mail address and resend it.
- Email address of a user on the Internet is similar to internet addresses except the protocol name is replaced by the user name.
- Username@Organisationname.OrganisationType. Geography
<mailto:Username@Organisationname.OrganisationType.Geography >
- For example abc@nielit.gov.in <mailto:abc@nielit.gov.in > is an email address, where abc is the name of a user.
- A mail server maintains all the email addresses of an organization.

Getting an Email Account

Opening Email account

- To send someone mail you need to know his MAIL ADDRESS and you yourself should also have one MAIL ADDRESS too.
- There are various websites like GOOGLE, YAHOO and Rediff mail that are providing free email facility.
- Mail Addresses are obtained when we click at Sign up option in the home page of these websites.
- Similarly if someone knows your mail address he can send you mail.
- An e-mail address identifies a location to which e-mail messages can be delivered.
- Mail Addresses are not case sensitive.
- The main rule everyone has to follow is that no two people can have the exact same address.

Some invalid e-mail addresses

- Abc.example.com (character @ is missing).
- Abc.@example.com (A dot cannot be the last character in the name portion of a mail address).
- Abc..123@example.com (Two dots in succession should not be there in a mail address).
- A@b@c@example.com (only one @ is allowed to be present in a mail address).
- () [] ; : @example.com (Special characters should not be there in a mail address).

Creating a Gmail account

- Gmail is a free, search-based web mail service that combines the best features of traditional email with Google's search technology.
- How to Create a Gmail Account?
 - Go to the Gmail homepage.
 - Click "Create an account" link.
 - The sign-up form will appear.
 - Fill in the required information, such as Name, Choose your username, Password, Gender and Birthday.
 - Enter your mobile phone number if you wish.
 - After fill out the Type the text, select your location.

- Review Google's Terms of Service and Privacy Policy, click the check box.
- Finally, Click Next step.
- After clicked the Next step, the Create your profile page will appear.
- Click Add a photo if you wish to add a photo to your Google+ profile.
- If you don't want to set a profile photo at this time, click Next step.
- Your account will be created, and the Google welcome page will appear.

Inbox

- Gmail messages are grouped into 'conversations' so that all follow-ups and responses appear as a single line in the user inbox.
- Inbox found on the left side of your Gmail screen.
- User's inbox can be interpreted and sorted using Gmail's inbox features very easily.
 - Names of message senders are listed on the left.
 - Unread messages are bolded in your message list.
 - Control how elements in your Gmail page (such as your message list) are displayed with density settings.
 - Gmail displays snippets, which are lines of text next to each message that reveal a bit of the content of the most recent message.
 - In Gmail, messages are grouped into 'conversations' so that all follow-ups and responses appear as a single line in your inbox.
 - The time or date of the most recent message in a conversation is displayed on the far right of a conversation line.
 - Dates appear when messages are older than 24 hours.
 - Use the check boxes next to the sender's name, then perform actions on those selected conversations using the buttons at the top ("Archive", "Report spam", "Delete", etc.)
 - Add stars to mark special messages or conversations.
 - If you want to see the messages you've starred, deleted, sent, etc., click on the labels on the left hand side of your Gmail page.

Draft

- As you write a message, Gmail automatically saves a draft of it.
- This way, you can always step away from your inbox and finish a message later.

- Drafts represent unsent messages with the Draft system label applied.
- The message contained within the draft cannot be edited once created, but it can be replaced.
- If you want to find a draft of a message you were in the middle of writing, click Drafts along the left side of any Gmail page.
- If you no longer need your draft, just click the Discard draft icon at the bottom of your compose window icon.

Sending and Receiving Emails

Sending an Email in Gmail

- The user should login to his mail account.
- Once he logged in, the list of incoming e-mails would be displayed on the screen.
- The user would also find a compose link in the pane on the left screen.
- The following steps detail the 'send e-mail' process:
 - Click the Compose button.
 - A new message opens near the lower-right of your Gmail window.
 - Type the email address of the message recipient in the To: field in the New Message window. More than one recipient can be added.
 - Use Cc: (carbon copy: additional recipients, usually added for awareness rather than action) and Bcc: (blind carbon copy: these recipients will be concealed from others) to add additional recipients.
 - Add a Subject to explain the purpose for your message.
 - In the Body field, type your message.
 - When you are ready to share your message, click Send.
 - The user will see a confirmation at the top of the window that the message was sent.

How to Reply in Gmail

- To reply to e-mails that has been received by a user, one has to follow the steps given below:
 - At the bottom of the message, click the 'Reply' link.
 - If the message was sent to multiple recipients, you will also have the option to Reply to all.
 - Here, the sender mail address would be automatically reflected in the 'Recipients' field.
 - Enter the reply message in the content box.
 - When the user finishes composing, click the Send button to send the e-mail.
 - The user will see a confirmation at the top of the window that the message was sent.

Forward an Email in Gmail

- To forward an individual message:
 - To forward e-mails that has been received by a user, one has to follow the steps given below:

- ❖ At the bottom of the message, click the 'Forward' link.
- ❖ Enter the recipient's email address.
- ❖ Enter a message if necessary in the content box.
- ❖ When the user finishes composing, click the Send button to send the e-mail.
- ❖ The user will see a confirmation at the top of the window that the message was sent.
- ❖ The original mail received by the user would now be forwarded as it is to the new recipient.

Using Emails

Advantages of using Email

- Managing Email is Easy - You can manage all your correspondence on screen and so can your customers.
- Your proposal can be answered, revised, stored and sent to others, all without reams of paper involved.
- Email is Fast - Mail is delivered instantly from your office to anywhere in the world.
- No other method of delivery can provide this service.
- Timely buying and selling decisions can be made in a heartbeat.
- Email is Inexpensive- Compared to telephone calls, faxes or overnight courier service, Email is less expensive.
- Email is Easy to Filter- The subject line on an Email makes it easy to prioritize messages.
- The reader can identify critical correspondence quickly and deal with it immediately.
- Unlike regular mail which needs to be opened and reviewed or voice mail which requires you to either listen to or scan all your messages for those that require immediate attention.
- Transmission is Secure and Reliable - The level of security in transmitting Email messages is very high and the industry continues to strive to develop even tighter security levels.
- Email is private.
- Often telephone and fax messages are not.
- If the address information is correct, rarely does an Email go astray.
- Fax machines can be out of order or out of paper and this prevents an important message from being delivered in a timely manner.

Searching emails

- The search box is at the top of your Gmail screen. Simply type the word you're looking for in the search box and click the magnifying icon.
- It searches every part of the message.
- Type some search terms in the Gmail search box, and click search Mail.

To search for a message

- Your inbox will display your search results. You can click on an email to read it, or you can try a different search.

- If you're still not finding what you're looking for, you can click Show search options to perform an advanced search.

Document Collaboration

- Collaboration is defined as working jointly on an activity or project.
- Document collaboration is how you share data in a consistent manner, so it can be retrieved, reviewed, approved, and audited by authorized individuals.
- This means that your success in using document collaboration depends on selecting tools that provide a secure way to upload, find, and review documents – and then involving others in the review process.
- Document and file collaboration are the tools set up to help multiple people work together on a single document to achieve a single final version.

Commonly used Document Collaboration Software

- Google Docs,
- Filecamp,
- Bitrix24,
- Box,
- Dropbox,
- eXo Platform,
- Sharepoint,
- Teamlab,
- Xaitporter,
- Workshare.

Instant Messaging; Netiquettes

Using Instant messaging

- Instant messaging (IM) is a type of online chat which offers real-time text transmission over the Internet.
- In web forums, instant messengers and online games, text emoticons are often automatically replaced with small corresponding images, which came to be called emotions as well.
- An emoticon or smiley is a textual expression representing the face of a writer's mood or facial expression.
- For example (pictures of smileys will be displayed here).
- They are often used to alert a responder to the tenor or temper of a statement and can change and improve interpretation of plain text.

Basic Smiley's

- (picture of a smiley) Your basic smiley
 - This smiley is used to inflect a sarcastic or joking statement since we can't hear voice inflection over e-mail.
- (picture of a smiley) Winky smiley
 - User just made a flirtatious and/or sarcastic remark.
 - More of a "don't hit me for what I just said" smiley.
- (picture of a smiley) smiley
 - User did not like that last statement or is upset or depressed about something.

Instant messaging providers

- Some of the popular and widely used instant messenger programs available today.
 - Windows Live Messenger,
 - AOL AIM (ICQ),
 - Yahoo! Messenger,
 - Google Hangouts,
 - Skype.

Netiquettes

Using Instant messaging

- Netiquette is a term derived from the words "Internet Etiquette" or "Network Etiquette" which describes the use of proper manners and behavior online.
- Internet Etiquette should be used in all areas of electronic means including email, chatting, blogging, forums, and message boards and so on.
- It is important to treat others with dignity and respect both on and offline.

Email netiquette

- There are netiquette rules for emailing, which are easy to follow once you know about them.
- These include little things like not typing in all UPPER CASE or 'CAPS LOCK' as some people might think you're angry or yelling at them.
- And although most of us use 'emoticons' when we're emailing friends and family—like smiley faces, sad faces and surprised faces—emoticons might not be acceptable for more formal emails.
- Also, it can be easy to forget that emails can be forwarded to other people, including people we don't know.
- If you are forwarding an email you received from one person to other people, you should remove all the personal information about the sender, including their email address.
- That way you're helping keep their personal information private.

Participating in online discussions and online consultations

- Another time to use netiquette is when you're participating in online discussions.
- You can join online discussion forums and share information, ask questions and answer questions on almost any topic you can think of.
- You could also participate in online consultations—this is where organizations like government agencies ask you to use the internet to have your say on issues that affect you and your community.
- These 'online communities' usually have their own rules and if people don't follow the rules a 'moderator' may step in.
- Moderators can give advice or warn users who are not following the rules.
- Moderators can even delete comments from discussion forums if they're inappropriate.

UNIT - 8

Making Small Presentation

Introduction

- Microsoft PowerPoint is a presentation program developed for the Microsoft Windows and Mac OS computer operating systems.
- Being widely used by businesspeople, educators and trainers, it is among the most prevalent forms of persuasion technology.
- In Microsoft PowerPoint, as in most other presentation software, text, graphics, movies, and other objects are positioned on individual pages or "slides".
- The "slide" analogy is a reference to the slide projector, a device which has become somewhat obsolete due to the use of PowerPoint and other presentation software.
- Slides can be printed, or (more usually) displayed on-screen and navigated through at the command of the presenter.
- Transitions between slides can be animated in a variety of ways, as can the emergence of elements on a slide itself.
- The overall design of a presentation can be controlled with a master slide and the overall structure, extending to the text on each slide, can be edited using a primitive outliner.

Objectives

- This unit will help the users to learn about
 - What is presentation?
 - Creating a presentation in different ways according to the requirements.
 - Applying editing Features , Formatting Features in the Slides.
 - Enhancing the view of the Presentation with the help of Transition effects.
 - At last to monitor your Presentation either manually or by setting times.
 - Inserting Objects, Files, Tables in the Slides.

Basics

- PowerPoint presentations consist of a number of individual pages or "slides".
- The "slide" is analogous to a page of presentation.
- Slides may contain text, graphics, movies, and other objects, which may be arranged freely on the slide.
- In PowerPoint, a user the facility of "Template" or "Slide Master" to have consistent style in preparing a complete presentation.
- For larger audiences, the computer display is often projected using a video projector. Slides can

also form the basis of web-casts.

Using PowerPoint

- To start making a presentation, you have to open the PowerPoint program.

Start the Microsoft Excel 2010

- Click Start button on the taskbar.
- Click All Programs, scroll down if necessary in the All Programs menu.
- Click Microsoft Office, and click Microsoft Excel 2010.
- Microsoft PowerPoint 2010 is displayed on the screen.

Basic of PowerPoint 2010

- Microsoft Excel PowerPoint 2010 includes the Ribbon, Quick Access toolbar and Backstage view.

The Ribbon

- “The Ribbon” is the professional term for the Microsoft Word toolbar.
- The Ribbon contains all of the commands you’ll need in order to perform common tasks.
- It contains multiple tabs, each with several groups of commands, and you can add your own tabs that contain your favorite commands.
- Some groups have an arrow in the bottom-right corner that you can click to see even more commands.
- They are
 - File tab,
 - Home tab,
 - Insert tab,
 - Design tab,
 - Transitions tab,
 - Animation tab,
 - Slide Show tab,
 - Review tab,
 - View tab,
 - Format tab.

The Quick Access toolbar

- The Quick Access toolbar, located above the Ribbon, lets you access common commands no matter which tab you're on.
- By default, it shows the Save, Undo, and Repeat commands.
- You can add other commands to make it more convenient for you.

Backstage view

- The Office Backstage view is where you manage your files and the data about them
 - Creating,
 - Saving,
 - Printing,
 - Sharing files,
 - Inspecting for hidden metadata or personal information, and
 - Setting options.

Creating Presentation

To create a new blank Presentation

- Click the File tab.
- This takes you to Backstage view.
- Select New.
- Select Blank Presentation under Available Templates and Themes.
- It will be highlighted by default.
- Click Create.
- A new blank presentation appears in the PowerPoint window.

To open an existing Presentation

- Click the File tab.
- This takes you to Backstage view.
- Select Open.
- The Open dialog box appears.
- Select your desired presentation, then click Open.
- If you have opened the existing presentation recently, it may be easier to choose Recent from the File tab instead of Open to search for your presentation.

Save a new Presentation

- In order to preserve the presentation for future use, you must save it on the disk.
- The user can use the following method to save a file:
 - Click the File tab.
 - Click Save.
 - Select the location where you want to save the file.
 - Type a name for the presentation, and then click Save.
 - Alternatively, On the Quick Access Toolbar, click Save, or press CTRL+S. to open the Save As dialog box.

Save an existing presentation as a new presentation(Save As)

- To prevent overwriting the original presentation, use the Save As command to create a new file

as soon as you open the original presentation.

- Open the presentation that you want to save as a new file.
 - Click the File tab.
 - Click Save As.
 - Select the location where you want to save the file.
 - Type a name for the presentation, and then click Save.

Creating a Presentation Using a Template

- Click the File tab.
- This takes you to Backstage view.
- Select New.
- If you wish to use a template, select Sample templates under Available Templates and Themes.
- Click on the template you want to use, depending on the purpose of your presentation.
- Click Create.
- A new blank presentation appears in the PowerPoint window.

Entering and Editing Text

- The easiest way to add text to a slide is to type it directly into any placeholder on the slide.
- If you want to add text outside a placeholder, add text by using the Text Box tool.
- The steps to insert the text through text box do are as follow:
 - On the Insert tab, click Text Box under text group.
 - To add text that doesn't wrap, click where you want to add the text, and start typing. Or To add text that does wrap, drag to where you want to add text, and then start typing.

Editing text

- In PowerPoint 2010, once you write the text in the different placeholder, you can edit the text from the options available in the Home tab such as cut, copy, paste, Format painter etc.
- The steps to do the following tasks are as follows:
 - Copy and Paste,
 - Cut and Paste,
 - Undo and Redo.

Copy and Paste

- Select the text from the placeholder which you want to copy.
- Click the Copy command on the Home tab.
- Then position the insertion point where you want to paste.
- Click the Paste command on the Home tab.
- Note: You can do the above task using right-click your selection and choose Cut or using keyboard shortcuts press Ctrl+C and Ctrl+P.

Cut and Paste

- Select the text from the placeholder which you want to cut.
- Click the Cut command on the Home tab.
- Then position the insertion point where you want to paste.
- Click the Paste command on the Home tab.
- Note: You can do the above task using right-click your selection and choose Cut or using keyboard shortcuts press Ctrl+X and Ctrl+P.

Undo and Redo

- If you erase the text by mistake, you can restore it without retyping it, PowerPoint remembers all of the editing you perform during the session, so that you can "undo" almost every action you perform.
- If you undo an action, then change your mind again, you can instantly "redo" it.
- Steps to the respective task Quick Access Toolbar are as following:

Undo the last action

- Click Undo Button on the Quick Access Toolbar.

Redo actions that you undid

- To redo an action that you undid, click Redo Button on the Quick Access Toolbar.
- Note: You can do the above task using the Keyboard shortcuts, Press CTRL+Z for undo, Press CTRL+Y for redo.

Preparation of Slides

Inserting slides in a Presentation

- Once you've created your opening slide, you'll want to add more slides to your presentation.
- It has three options to inserting new slide.
 - Home tab
 - ❖ From Home tab, select the New Slide option in slides group to insert a new blank slide.
 - Keyboard Options
 - ❖ Press Ctrl + M keys to insert a new blank slide.
 - ❖ Just Hit Enter. Another convenient option is to use the Enter key on your keyboard. Just click in the left panel (Slides Tab) and hit Enter.
 - Right Click Option
 - ❖ Click the Slides tab, right-click the slide that a user wants to insert a new slide, and then click New Slide.

Delete a slide in a presentation

- Select the slide you want to delete.
- Press the Delete or Backspace key on your keyboard.
- Delete the slide Through right-click option:
 - In Normal view, on the pane that contains the Outline and Slides tab, click the Slides tab, right-click the slide that a user want to delete, and then click Delete Slide.

Inserting Table

- A user can also create a table in a presentation without using MS-Word.
- Steps to Insert a Word table
 - On the Insert tab, in the Tables group, click Table.
 - In the Insert Table dialog box, do one of the following:
 - Click and move the pointer to select the number of rows and columns that user wants, and then release the mouse button.
 - Click Insert Table, and then enter a number in the Number of columns and Number of rows lists.
 - To add text to the table cells, click a cell, and then enter the text. After enter the text, click outside the table.

Insert clip art

- To insert a picture from the Clip Art Gallery
 - Click the slide that one wants to add the clip art to.
 - On the Insert tab, in the Images group, click Clip Art.
 - In the Clip Art task pane, in the Search for text box, type a word or phrase that describes the clip art that user wants, or type all or some of the file name of the clip art.
 - To narrow the search, in the Results should be list, select the check boxes next to Illustrations, Photographs, Videos, and Audio to search those media types.
 - Click Go.
 - In the list of results, click the clip art to insert it.

Insert a picture from a file

- Click where you want to insert the picture.
- On the Insert tab, in the Images group, click Picture.
- Browse to locate the picture that you want to insert, and then double-click it.
- The picture will appear in your slide.
- NOTE: To add multiple pictures, press and hold CTRL while you click the pictures that you want to insert, and then click Insert.

Inserting Other Objects

- A user can insert many types of other objects in the PowerPoint through Insert tab.
- Resize or crop an object.
- When one selects an object, sizing handles appear at the corners and along the edges of the selection rectangle.

To insert a shape

- Select the Insert tab.
- Click the Shapes command.
- Select a shape from the drop-down menu.
- Click the shape that you want, click anywhere on the slide, and then drag to place the shape.

Insert a WordArt

- On the Insert tab, in the Text group, click WordArt, and then click the WordArt style that you

want.

- Type the text you want to format.
- To add or change effects to the text, use the tools on the Format tab.
- Note: Bitmap images, Flash Documents, Media clips etc. Can be inserted through Insert Object option of the Text group on the Insert tab.

Resizing and Scaling an Object

- After inserting the objects from different sources, it is essential to resize them to fit them in your presentation.

Steps to Resize or crop an object

- Click the object.
- Position your mouse over any one of the corner sizing handles.
- The cursor will become a pair of directional arrows.
- Click, hold, and drag your mouse until the image is the desired size.
- Release the mouse.
- The object will be resized.
- If the object is a picture or a photo or a bitmap or clip art, for example, you can crop it, and you can also restore it later to its original image.

Presentation of the Slides

Viewing a Presentation

- Microsoft PowerPoint comes with different views to help you while you are creating a presentation.
- The two main views you use in PowerPoint are normal view and slide sorter view.
- It's important to be able to access the different slide views and use them for various tasks.
- The slide view commands are located on the bottom-right of the PowerPoint window in Normal view.
- You can see the small icons of normal view, outline view, slide sorter view, slide show.

Normal View

- Normal view is the main editing view, where you write and design your presentations.
- Normal view has four working areas:
 - Outline tab,
 - Slides tab,
 - Slide pane,
 - Notes pane.

Outline Tab

- The Outline tab shows your slide title and text content in outline form. No graphics are shown in Outline view.
- Use the outline tab to organize and develop the content of your presentation.

Slides Tab

- View the slides in your presentation as thumbnail-sized images while you edit.
- The thumbnails make it easy for you to navigate through your presentation and to see the effects of any design changes.
- You can also easily rearrange, add, or delete slides here.

Slide Pane

- In the upper-right section of the PowerPoint window, the Slide pane displays a large view of the current slide.
- With the current slide shown in this view, you can add text and insert pictures, tables, SmartArt

graphics, charts, drawing objects, text boxes, movies, sounds, hyperlinks, and animations.

Notes Pane

- In the Notes pane, below the Slide pane, you can type notes that apply to the current slide.
- Later, you can print your notes and refer to them when you give your presentation.
- You can also print notes to give to your audience or include the notes in a presentation that you send to the audience or post on a Web page.

Slide Sorter View

- Slide Sorter view gives you a view of your slides in thumbnail form.
- This view makes it easy for you to sort and organize the sequence of your slides as you create your presentation.
- This makes it easy to add, delete, and move slides, add timings, and select animated transitions for moving from slide to slide.

Reading View

- This view fills most of the computer screen with a preview of your presentation.
- Unlike Slide Show view, it includes easily accessible buttons for navigation, located at the bottom-right.

Slide Show

- Use Slide Show view to deliver your presentation to your audience.
- Slide Show view occupies the full computer screen, exactly the way your presentation will look on a big screen when your audience sees it.
- You can see how your graphics, timings, movies, animated effects, and transition effects will look during the actual presentation.
- To exit Slide Show view, press ESC.

Choosing a Set Up for Presentation

- To select a setup for slides, notes, handouts and outlines.
- Steps to do this task are as follows:
 - On the Design tab, click 'Page Setup'.
 - In the 'Slides sized for' box, click the option needed and Enter the measurements of the Width and height boxes.
 - Under Orientation of Slides, click 'Portrait' or 'Landscape'.

- ▶ Under Notes, handouts, and outline, click Portrait or Landscape.

Running a Slide Show

- To view a finished presentation, one has to use 'slide show' option.
- In slide show, the contents of the presentation are shown on full screen.
- You can start Slide Show in any of the following:
 - Method 1. Click Slide Show button at the bottom of the window.
 - Method 2. Clicking on From beginning, from the Start Slide Show group.
 - Method 3. Running current slide, clicking on From Current Slide, from the Start Slide Show group.
 - Method 4. Press F5 on your keyboard.

The steps to set up a slide show are as follows

- Select the "Slide Show" tab. Click on 'Set Up Slide Show' option.
- The "Set up show" dialog box will appear.
- Select the range from the following two options:
 - Includes all the slides in the slide show.
 - Includes only the range of slides one enters in the 'From and to' boxes in the slide show.
 - Type the beginning and ending slide numbers in the 'From and To' boxes.
- Click the way one wants to move from one slide to the next, i.e. either manually or automatically during a slide show.
- Click OK to apply the settings to the slide show.

Transition and Slide Timings

Slide Transition

- To add transitions to a slide show, follow the given steps :-
 - In Slide View or Slide Sorter View, select the slide or slides user wants to add a transition to.
 - On the Transitions tab, in the Transition to This Slide group, click the slide transition effect that user wants for that slide.
 - Repeat the process for each slide one wants to add a transition to.
 - To preview the transitions effect, on the Transitions tab, click Preview.
 - To apply the transition to all the slides, click Apply To All.

Slide Timings

- To set a time manually follow the given steps :-
 - In Normal View or Slide Sorter View, select the slide or slides one wants to set the timing for.
 - On the Transitions tab, in the Timing group, on Advance Slide option to apply the timing to the selected slide.
 - To specify the time, before the slide advances, select the 'After' check box, and then Enter the number of minutes or seconds that of delay needed into the associated text box.
 - To apply the timing to all the slides, click 'Apply to All'.
 - Repeat the process for each slide one wants to set the timing for.

Automating a Slide Show

Set timings automatically for a slide show

- If you don't want to manually move through a slide show, there are two ways you can set the length of time a slide appears on the screen.
- One way is to set a time manually for each slide, and then run the slide show and view the timings you set.
- The other way is to use the "Rehearsal" feature, where you can record timings automatically as you rehearse.
- On the Slide Show tab, in the Set Up group, click Rehearse Timings.
- The Rehearsal toolbar appears, and the Slide Time box begins timing the presentation.
- The Rehearsal toolbar
 - Next (advance to next slide),
 - Pause,
 - Slide Time,
 - Repeat,
 - Total time for presentation.
- While you time your presentation, do one or more of the following on the Rehearsal toolbar:
 - To move to the next slide, click Next.
 - To temporarily stop recording the time, click Pause.
 - To restart recording the time after pausing, click Pause.
 - To restart recording the time for the current slide, click Repeat.

- After you set the time for the last slide, a message box displays the total time for the presentation and prompts you to do one of the following:
 - To keep the recorded slide timings, click Yes.
 - To discard the recorded slide timings, click No.
- Slide Sorter view appears and displays the time of each slide in your presentation.

Printing Slides and Handouts

- A user can print the entire presentation.
 - E.g. The slides,
 - Outlines,
 - Notes,
 - Audience handouts in color, gray scale, or pure black and white.
- One can also print specific slides, handouts, notes pages, or outline pages.

Handouts

- Handouts are basically thumbnails of slides printed together on a sheet of paper.
- Handouts are often printed to be sent for review to those who matter before an actual presentation is shown to an audience.
- During the presentation itself, Handouts can be distributed to the audience.

To get hard copy of Slides and/or Handouts

- Select the file which one wants to print.
- Click the File tab.
- Click the Print option, then the print dialog box will appear.
- Under Settings, click the "Full Page Slides".
- In the Handouts section, select the number of slides to print on each page and whether the order should be horizontal or vertical.
- Click the Print button.