Warm Greetings!

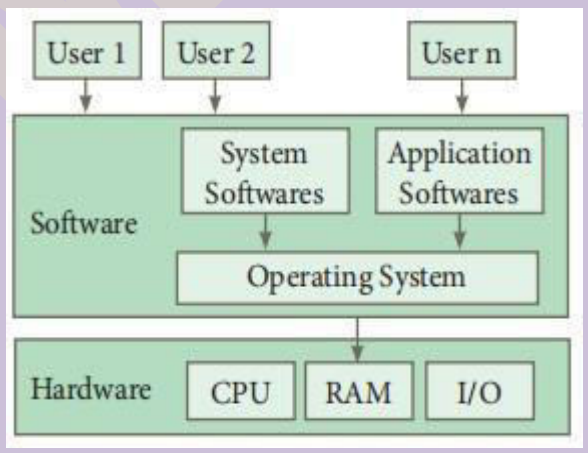
Dear Students,

In this note, we are going to discuss the concept of Windows Operating System.

Chapter 5: Working with Windows Operating System

Introduction to Operating System

- An Operating System (OS) is a system software that enables the hardware to communicate and operate with other software.
- It also acts as an interface between the user and the hardware and controls the overall execution of the computer.
- Following are some of the important functions of an Operating System as discussed in the previous chapter:
  - Memory Management
  - Process Management
  - Device Management
  - File Management
  - Security Management
  - Control overall system performance



Overview of an Operating System

Introduction to Windows Operating System

- Every computer needs an Operating System to function. Microsoft Windows is one of the most popular Graphical User Interface (GUI).
- Multiple applications can execute simultaneously in Windows, and this is known as **"Multitasking".**
- Windows Operating System uses both Keyboard and mouse as input devices.
- Mouse is used to interact with Windows by clicking its icons.
- Keyboard is used to enter alphabets, numerals and special characters

Some of the functions of Windows Operating System are:

• Access applications (programs) on the computer (word processing, games, spread sheets, calculators and so on).

• Load any new program on the computer.

• Manage hardware such as printers, scanners, mouse, digital cameras etc.,

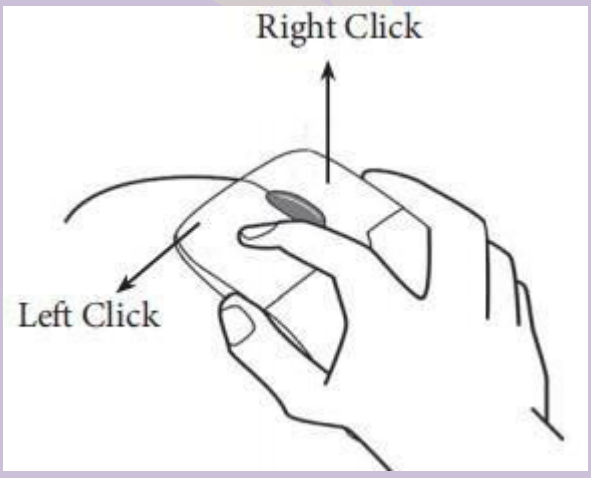
• File management activities (For example creating, modifying, saving, deleting files and folders).

• Change computer settings such as colour scheme, screen savers of your monitor, etc.

With reference to the Table 5.1, let us see the versions of Windows Operating System.

Handling the mouse

Before learning Window Operating System, you should know more about mouse and its actions.



5.3. Various versions of Windows

Versions	Logo	Year	Specific features
Windows 1.x		1985	• Introduction of GUI in 16 - bit. processor • Mouse was introduced as an input device.
Windows 2.x		1987	• Supports to minimize or maximize windows. • Control panel feature was introduced with various system settings and customising options.
Windows 3.x		1992	• Introduced the concept of multitasking. • Supported 256 colours which brought a more modern, colourful look to the interface.
Windows 95		1995	• Introduced Start button, the taskbar, Windows Explorer and Start menu. • Introduced 32 - bit processor and focused more on multitasking.
Windows 98		1998	• Integration of the Web browser (Internet Explorer) with the Operating System. • DOS gaming began to disappear as Windows based games improved. • Plug and play feature was introduced.
Windows NT			• Designed to act as servers in network.
Windows Me		2000	• It introduced automated system diagnostics and recovery tools.

Windows 2000		2000	• Served as an Operating System for business desktop and laptop systems. • Four versions of Windows 2000 were released: Professional (for business desktop and laptop systems), Server (both a Web server and an office server), Advanced Server (for line-of-business applications) and Data Centre Server (for high-traffic computer networks).
Windows XP		2001	• Introduced 64-bit Processor. • Improved Windows appearance with themes and offered a stable version.
Windows Vista		2006	• Updated the look and feel of Windows.
Windows 7		2009	• Booting time was improved, introduced new user interfaces like Aero Peek, pinning programs to taskbar, handwriting recognition etc. and Internet Explorer 8.
Windows 8		2012	• Windows 8 is faster than previous versions of Windows. • Start button was removed. • Windows 8 takes better advantage of multi-core processing, solid state drives (SSD), touch screens and other alternate input methods. • Served as common platform for mobile and computer.
Windows 10		2015	• Start Button was added again. • Multiple desktop. • Central Notification Center for App notification and quick actions. • Cortana voice activated personal assistant.

Windows Desktop

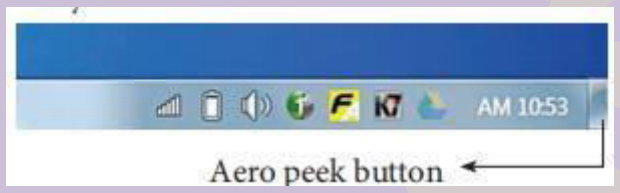
- The opening screen of Windows is called “Desktop”.
- The desktop of your computer may look different from what is seen in Figure 5.3.
- This is because Windows allows you to change the appearance of the desktop.
- In Figure 5.3, the desktop shows the Start button, Taskbar, Notification Area and date and time.

The Icons

Icon is a graphic symbol representing the window elements like files, folders, shortcuts etc., Icons play a vital role in GUI based applications.

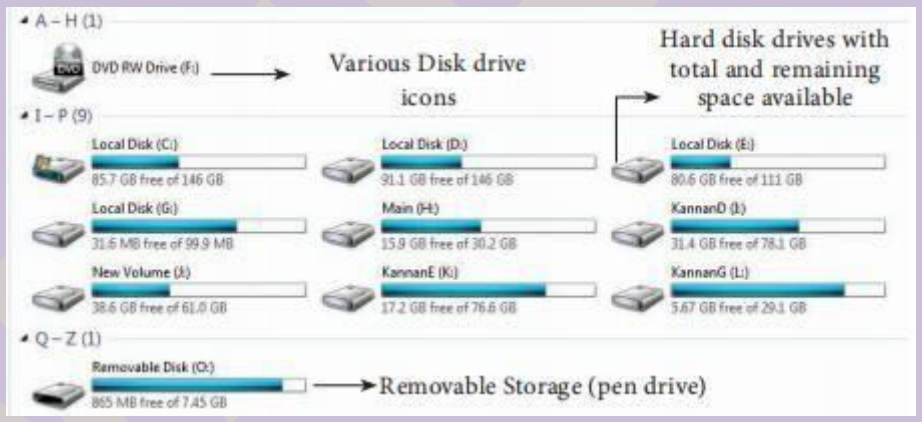
Standard Icons

The icons which are available on desktop by default while installing Windows OS are called standard icons. The standard icons available in all Windows OS are My Computer, Documents and Recycle Bin.



Shortcut Icons:

Shortcut icons can be created for any application or file or folder. By double clicking the icon, the related application or file or folder will open.



Disk drive icons:

The disk drive icons graphically represent five disk drive options. (i) Hard disk (ii) CD-ROM/DVD Drive (iii) Pen drive (iv) Other removable storage such as mobile, smart phone, tablet etc., (v) Network drives if your system is connected with other system.

The Window

Window is a typical rectangular area in an application or a document. It is an area on the screen that displays information for a specific program.

Application Window

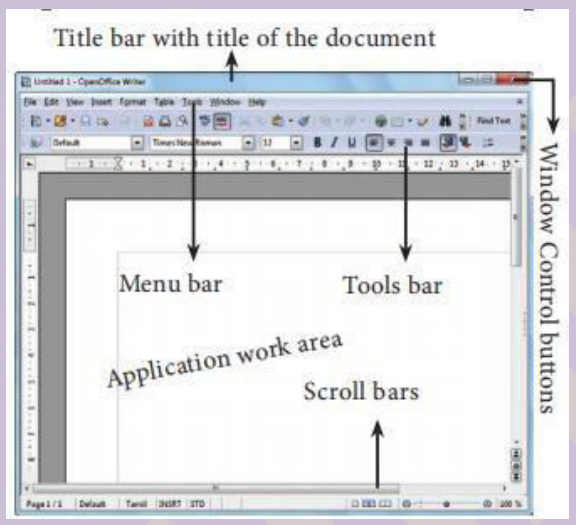
It is an area on a computer screen with defined boundaries, and within which information is displayed. Such windows can be resized, maximized, minimized, placed side by side, overlap, and so on.

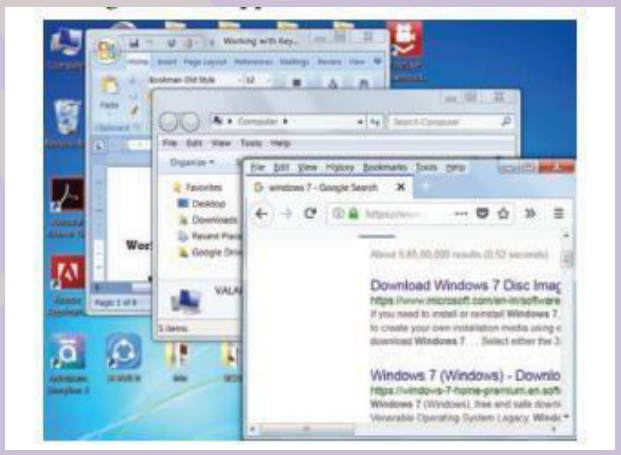
An Application Window contains an open application i.e. current application such as Word or Paint. When two or more windows are opened, only one of them is active and the rest are inactive. Figures 5.6 and 5.7 display the Application Window of OpenOffice Writer and the appearance

of the Multiple Windows opened (overlapped) in the Desktop.

Document Window

A document window is a section of the screen used to display the contents of a document. Figure 5.8 is an example of a document window.





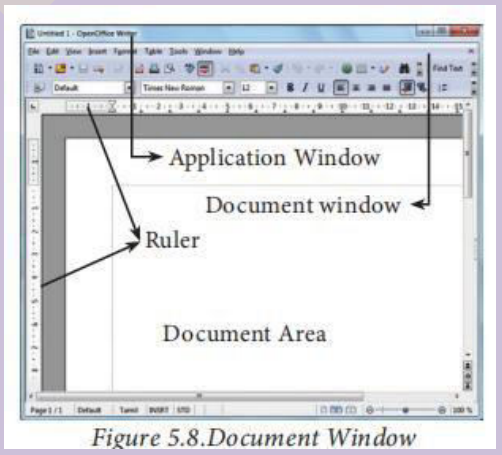
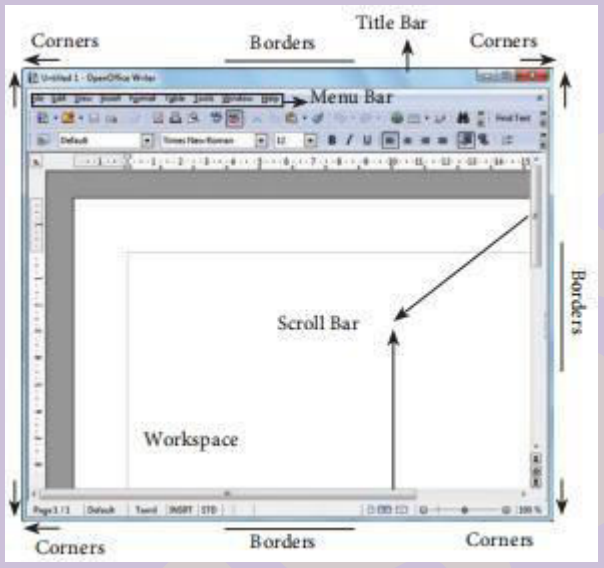


Figure 5.8.Document Window

Elements of a window

Figure 5.9 helps to understand the elements of a window.

Title Bar – The title bar will display the name of the application and the name of the document opened. It will also contain minimize, maximize and close button.



Menu Bar

The menu bar is seen under the title bar.

Menus in the menu bar can be accessed by pressing Alt key and the letter that appears underlined in the menu title.

Additionally, pressing Alt or F10 brings the focus on the first menu of the menu bar. In Windows 7,in the absence of the menu bar, click **Organise** and from the drop down menu, click the **Layout** option and select the desired item from that list.

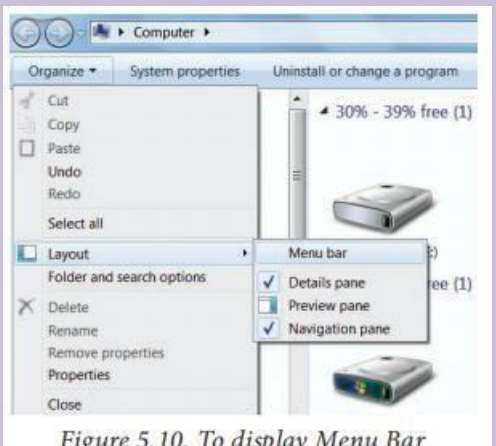


Figure 5.10. To display Menu Bar

The Workspace

The workspace is the area in the document window to enter or type the text of your document. Figure 5.10 Shows the workspace area in the document window.

Scroll bars - The scroll bars are used to scroll the workspace horizontally or vertically. Figure 5.9 shows the Scroll bars.

Corners and borders

The corners and borders of the window helps to drag and resize the windows.

The mouse pointer changes to a double headed arrow when positioned over a border or a corner.

Drag the border or corner in the direction indicated by the double headed arrow to the desired size as shown in Figure 5.9.

The window can be resized by dragging the corners diagonally across the screen.

Next note we shall discuss Start Menu of the Window screen