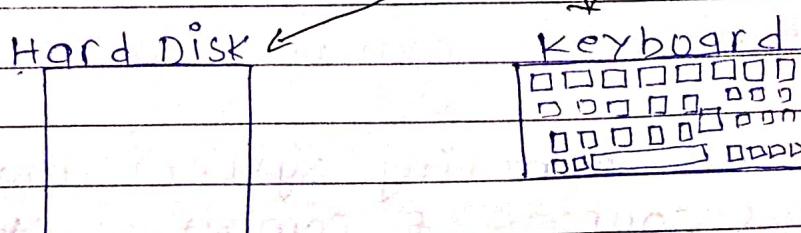
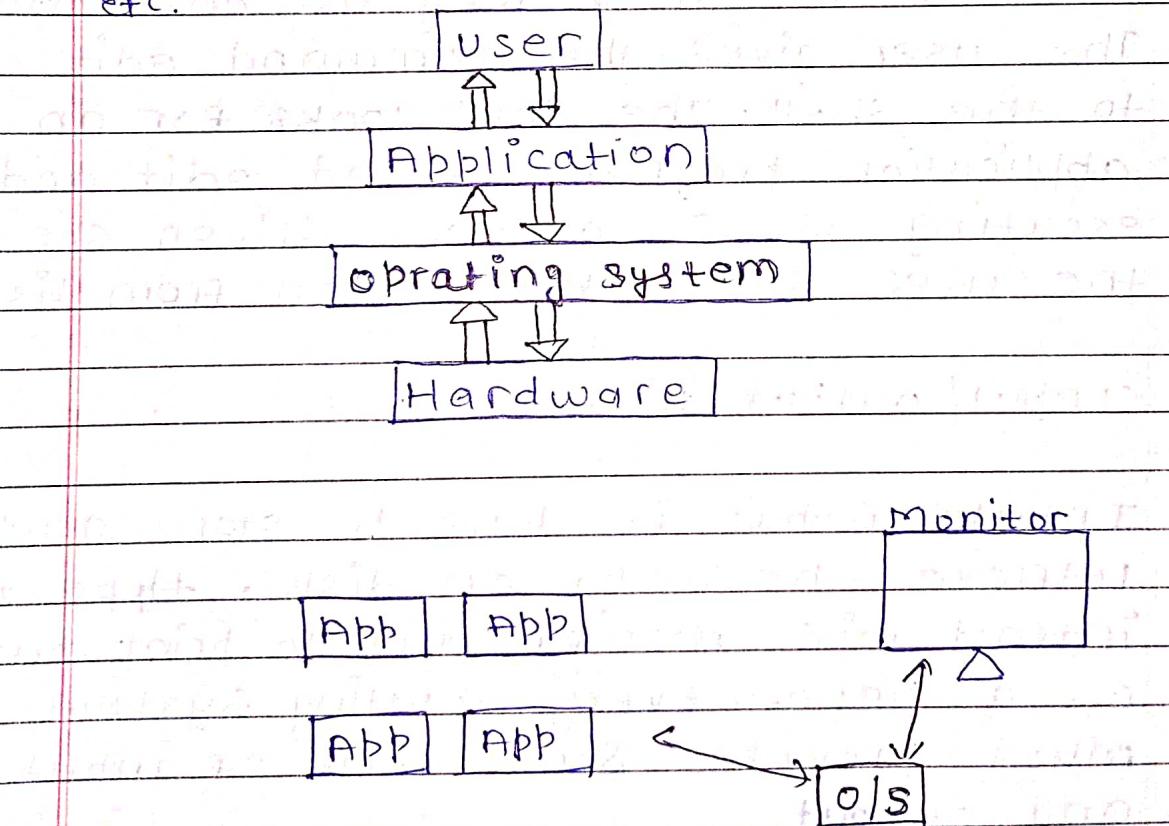


Graphical user interface

Operating System

An operating system is a system software, that manages the entire computer system including Computer screen (monitor), keyboard, disk drives, C.P.U etc. It forms an interface between computer and user.

Some examples of operating system are windows, DOS, Linux, Unix, Solaris, MAC etc.



● Function of O/S :-

i) User-interface function :-

An operating system provides a user interface. The interface also called shell. A shell is a program that processes the command given by user and initiate appropriate action. A shell could be command based or menu based. for example to write a letter the user may use an editor. The user gives the command edit to the shell. The shell looks for an application programme called edit and executing it. In a menu driven shell the user select the option from list.

ii) Input/ output function :-

Input / output is done to store and retrieve the data on disk, type to interact with monitor and to print out on a paper. Every operating system must provide some form of input and output.

iii) Resource management :-

An operating system manage the resource of computer. to interact

with hardware device and allocated resources like primary memory (RAM), disk spaces (Hard disk) to the user.

For example in a multi-user operating system resources like primary memory, CPU, disk spaces, printer etc are shared among the user by the operating system.

iv) Utility function :-

Operating system provides a collection of utility programs for users and software developers. It includes programs for command tasks like disk defragmentation, formatting, Scanning, displaying the contents of files, linking, reading and editing.

● Types of Operating System :-

There are basically two types of OS

i) Command line user operating system (CUI) or character user interface.

ii) Graphical user interface (GUI)

i) Character User Interface :-

The command line user operating system or character user interface is an

operating system in which user needs to type each and every command in order to perform any task. This type of operating system is not user friendly. A common example of command line user operating system are DOS, UNIX, LINEX etc.

ii) Graphical user interface :-

GUI operating system is user friendly operating system in which user always use a menu, Toolbar, command button, Icons, etc to perform their task. In other word we can say that the operating system commands are available in the form of menu, Toolbar, Command button, Icons etc. A common example of GUI operating system are windows, latest version of linex, MAC etc.

● GUI components :-

The components or control use to design a graphical user interface application is known as GUI Components. These are windows, Icons, menu, label, command button, Radio

button, text box, list box, check box etc.

i) **label:** — ~~management and control~~
~~and also used to display text~~

The label component is used to display a read only text. user can not edit or modify the content of label.

ii) **Text box:** — ~~management and control~~
~~and also used to display~~

The text box component provides an area to enter text. it is also known as edit field or edit area.

iii) **Command button:** —

The command button component carries out a command and action when a user selects it. we can use command button to get a simple response from user.

iv) **Check boxes:** — ~~management and control~~

The check box component displays true/false or yes/no option. it is used to select more than one option at a time. we can check many number of checkboxes at a time.

vi) list box :-

A list box component displays a list of items from which user can select one or more items.

vii) combo box (drop-down list box) :-

Combo box control combines the feature of both text box and list box. Combo box control is similar to list box control in which user can select one or more items and enter some text.

viii) option button / Radio Button :-

An option button is also called Radio button. It allows user to select one and only one option from group of options. The option button is used to display an option that can be turn-on or turn-off.

ix) windows :-

Windows Components is a container component which contains various GUI components like - Label, text box, Check box, Radio button etc. Windows component contains three

buttons (min, max, close) at the top right corner of windows.

There are two types of windows :-

- i) Tiled windows and
- ii) Overlaped windows.
- iii) Tiled windows :-

A simple window is known as tiled window, which displays a single window.

- ii) Overlaped window :- When two or more windows are attached or overlap on each other are known as overlaped window.

Example:- MS Excel.

- iv) Icons :-

The graphical representation of file or folder or any type of application is called icon.

There are two types of icon.

- i) System icon

- ii) Shortcut icon

i) System icon :-

System icons are created automatically when we install our operating system. Some examples are - My document, recycle bin, my computer, My network place etc.

ii) Short-cut icon :-

A short-cut icon is used to access some objects or applications of our computer system. A short-cut icon contains a small arrow sign at the left corner of the icon.

● Desktop :-

After booting the first screen display on a computer is known as desktop. It contains icons and task bar.

● spinner :-

The spinner component is used to display a numeric value. It is a rectangular box with two buttons. The upper button is used to increase the value of spinner by one and the lower button is used to decrease the value of spinner by one.

to decrease the spinner value by one. It also provide an area to type any number in the box.

- **Scroll bar :-** It is a UI component used to move screen view up or down or left or right. We can scroll one line or one column of our whole screen with the scrollbar.

Scrollbar is a UI component used to move screen view up or down or left or right. We can scroll one line or one column of our whole screen with the scrollbar.

There are two types of scrollbar.

- i) Horizontal Scroll Bar.
- ii) Vertical Scroll Bar.
- iii) Horizontal Scroll Bar :-

Horizontal scrollbar moves screen left to right (one column of our whole screen).

- iv) Vertical Scroll Bar :-

Vertical scroll bar moves screen top to bottom (one line of our whole screen).

● Menu:-

The menu displays a list of commands of any application. It appears after title bar of window. Some example of menu are - file, edit, view, format etc.

There are four types of menu.

- i) pull-up menu
- ii) pull-down menu
- iii) cascade menu
- iv) Ellipsis menu

i) Pull-up menu:-

The menu which opens in upward direction are known as pull-up menu.
Example :- Start menu.

ii) Pull-down menu:-

The menu which opens in downward direction are known as pull-down menu.
Example :- file, edit, view, format etc.

iii) cascade menu:-

A Cascade menu contains a right arrow button at the end of menu item which contains other menu

item. for example:- select, tool bars etc.

iv) Ellipsis menu:-

The ellipsis menu contain three dots by selecting ellipsis menu at dialog box appears. for example - save as, open, print etc.

• Dialog boxes:-

Dialog boxes are small windows that appears when a program needs more information before it can complete an operation. It is used to capture user's choice. It can put its action into effect by clicking "OK" button. The user can click "cancel" button to cancel the operation. Dialog boxes have only one button or two buttons at top right corner. Max and min buttons are not present. for example - save as option, print options, open option are shows a dialog boxes.