



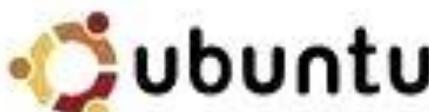
# S.P.M College, Udaipur

Bachelor Of Computer Application (BCA)

Part -1 (Paper-2)

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## OPERATING SYSTEM -OS



UNIX



### ❖ User Interfaces

This is the environment given by the OS to control how a user enters data and instructions and how information is displayed.

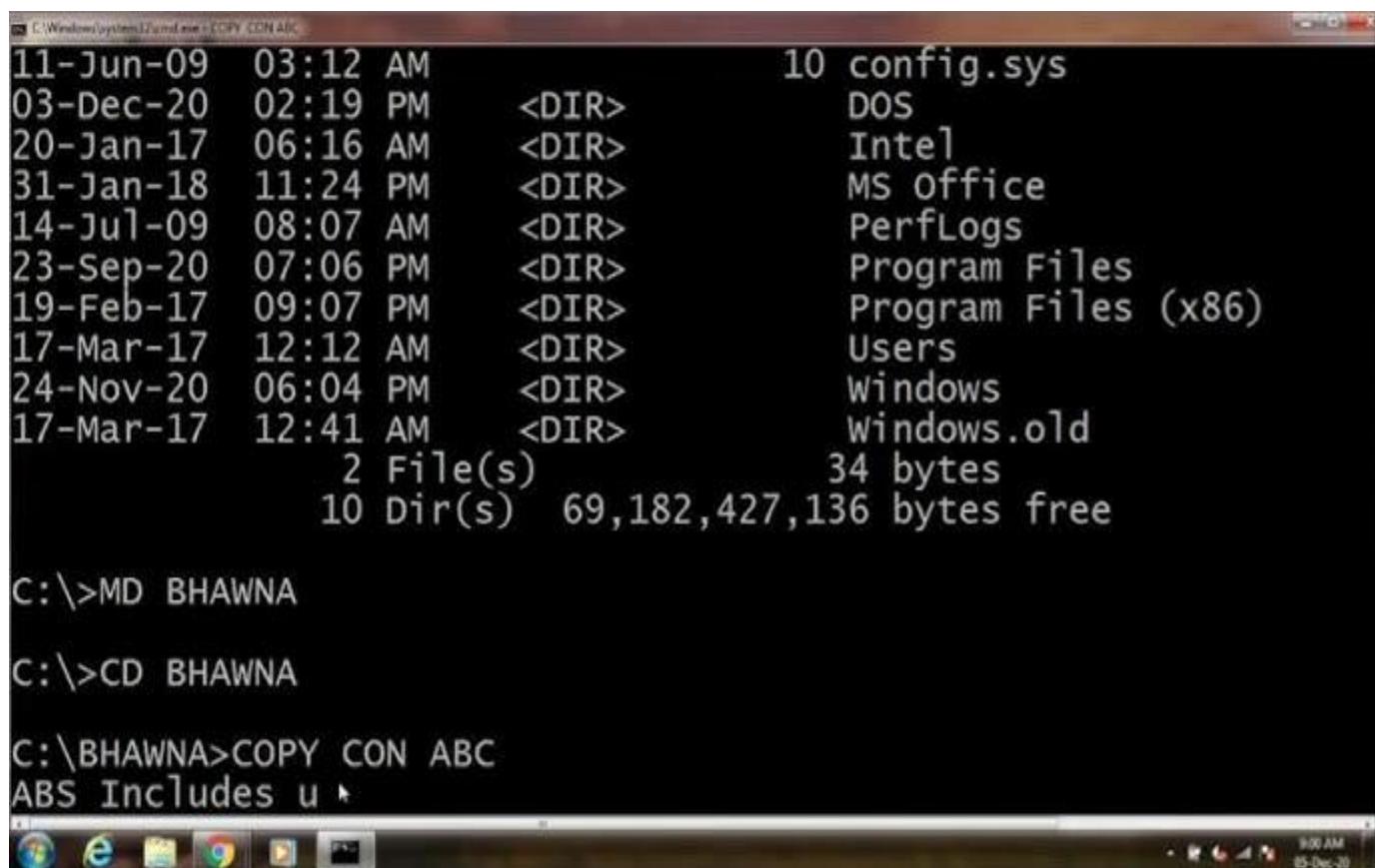
### ❖ Types of OS based on User Interfaces

→ 2 types of OS based on User Interfaces

- A. CLI (Command Line Interface)/ CUI (Command User Interface)
- B. GUI (Graphical User Interface)

## A. Command-Line Interface

- In command line interface, a user types keyboard or press special keys on the keyboard to enter data and instructions.
- The set of commands a user uses to interact with the computer is called command language.
- Examples are **DOS, UNIX, Linux**.
- You are provided with a virtually empty screen with a blinking cursor where commands are keyed and the computer executes them by pressing the enter key.



C:\Windows\system32\cmd.exe COPY CON ABC

11-Jun-09	03:12 AM	10 config.sys
03-Dec-20	02:19 PM	<DIR> DOS
20-Jan-17	06:16 AM	<DIR> Intel
31-Jan-18	11:24 PM	<DIR> MS Office
14-Jul-09	08:07 AM	<DIR> PerfLogs
23-Sep-20	07:06 PM	<DIR> Program Files
19-Feb-17	09:07 PM	<DIR> Program Files (x86)
17-Mar-17	12:12 AM	<DIR> Users
24-Nov-20	06:04 PM	<DIR> Windows
17-Mar-17	12:41 AM	<DIR> Windows.old
	2 File(s)	34 bytes
	10 Dir(s)	69,182,427,136 bytes free

C:\>MD BHAWNA

C:\>CD BHAWNA

C:\BHAWNA>COPY CON ABC  
ABS Includes u ↵

9:00 AM  
25-Dec-20

## **Advantages of Command User Interface**

- Commands are executed faster.
- Consumes limited Random Access Memory.
- Cannot easily affected by viruses.
- Ideal for programming and programmers.
- Commands can be grouped together.

## **Disadvantages of Command User Interfaces**

- Commands are not easily memorized.
- Requires a lot of knowledge to master the commands.
- No graphics on the screen.
- A mouse cannot be used.

## **B. Graphical User Interface (GUI)**

- Graphical user interface allows the user to use menus and visual images such as icons, buttons and other graphical objects to issue commands.

E.g – Windows, Andriod,....

## **Advantages of GUI**

- It is user friendly because it is easy to learn and work with
- There is no need to type and memorize any command language.

- The interface is similar for any application.
  - You are provided with a coloured screen with icons each representing a program.
  - A mouse may be used.

# Disadvantages of (GUI)

- Require much more memory and as well as the processor
  - Require much more desk space to hold the files
  - Difficult to automate for expert users
  - Easily affected by viruses
  - Not good for programmers.



## ❖ **Operating System types based on task**

### 1. Single-user,Single tasking

DOS,PC-DOS, CP/M (use old microcomputer), Free DOS

### 2. Single-User, Multi Tasking

Android, IOS, Windows 95/7/8/10/11,MAC OS

### 3. Multi-user, Multi-tasking (Server based)

Unix, Linux, Ubuntu,Windows Server, Windows NT

### 4. Real Time operating Systems / Embedded OS / Process Control

Fax Machines, Printers, Scanners, Routers, Robots.

=====HIRA KUMAR=====

- ✓ First OS Run on machine = IBM 701
- ✓ First OS = 1956 (GMOS-General Motors OS)
- ✓ Father of OS = Gary Kildall = CP/M OS
- ✓ CP/M OS = Control Program For Microcomputers = 1974
- ✓ Famous 1<sup>st</sup> OS for PC → CP/M OS
- ✓ Close Computer in Short time no use = Sleep Mode
- ✓ Close Computer in Long time no use = hibernate Mode