

## OPERATING SYSTEM (OS)



### Q. What is Operating System ? (2021)

→ An Operating System (OS) is an interface between the computer user and the computer hardware.

Or

An operating system is a program that acts as an interface between the user and the computer hardware and controls the execution of all kinds of programs.

- It is a type of System Software.
- Every computer system must have at least one operating system to

run other programs.

- A program which controls the execution of all other programs (applications).
- Acts as an intermediary between the user(s) and the computer.
- Applications like Browsers, MS Office, Notepad Games, etc., need some environment to run and perform its tasks.
- Example of Some popular Operating Systems → Windows, Android, MacOS, IOS, Linux, Unix, DOS,.....
- ✓ First OS Run on machine = IBM 701
- ✓ Father of OS = Gary Kildall = CP/M OS
- ✓ CP/M OS = Control Program For Microcomputers = 1974
- ✓ Close Computer in Short time no use = Sleep Mode
- ✓ Close Computer in Long time no use = hibernate Mode
- ✓ 1<sup>st</sup> Version of Microsoft – Ms- DOS
- ✓ 1<sup>st</sup> Version of Windows – Windows 1.0
- ✓ Latest Version of Microsoft / Windows – Windows 11
- ✓ Client/Server based OS – Windows 2000
- ✓ My Computer / Windows explorer feature develop = Windows 95
- ✓ OS is a collection of = Software(kernel/driver...) Routines
- ✓ Windows 8 = Not having start button
- ✓ OS not support networking = Windows 3.1
- ✓ OS having small file nam(i.e. till 8 Character) = MS DOS
- ✓ OS handles hardware and software interrupts



- ✓ MS-DOS - Owner Microsoft – Use PC
- ✓ Android – Owner Google – Use smartphone / tablets
- ✓ IOS – Owner Apple - Use smartphone / tablets
- ✓ MACOS – Owner Apple – Use PC
- ✓ Windows – Owner Microsoft – Use PC
- ✓ Chrome OS – Owner google – Use tablets & netbooks.
- ✓ Linux – Use PC - professionals, Cloud based services & websites, Linux is more secure and less prone to viruses, but not virus-free..
- ✓ Symbian – Owner Nokia – Use Smartphone
- ✓ Ubuntu – Use PC
- ✓ Blackberry – Blackberry OS
- ✓ Samsung - Bada OS
- ✓ Unix – Servers and Workstations
  - ✓ Booting – When computer do start/Re-start, this is called Booting.
  - ✓ Booting Process – Computer ON → BIOS(Stored in ROM) → POST → Boot loader → Operating System loaded into RAM
    - POST – Power On self – Test
    - BIOS – Basic Input-Output System
    - CMOS - Complementary Metal-Oxide-Semiconductor
- ✓ Booting Type – i) Cold Booting – When PC 1<sup>st</sup> Time Start  
ii) Warm booting – When PC Re-start.

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