Concepts All A blog that Clear All Concepts

Operating System and types

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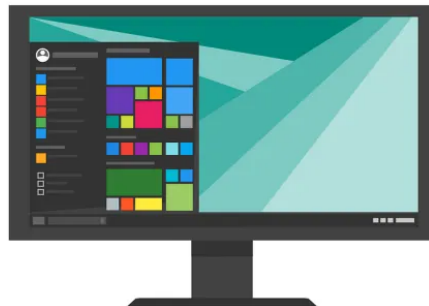If you are using a computer then you need to know about the Operating System and types of OS.

What is the Operating System?

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Operating System is the main concept of the computer. It brings user and computer at a common platform there communicate with each other.

The computer being a machine can't d do anything on its own. It requires specific instructions to the computer on how to perform each and every task. Further, the instructions are to be concerted in a language, which the Machine understands. It means that users cannot communicate with the computer directly. Thus, you required to communicate between user and hardware (all computer resources).

The operating system acts as an interface The computer interprets the instruction given by the user with the help of an operating system. It is the master's program, which makes your PC alive and helps you run different applications.

The operating system acts as a central coordinator between hardware and software. Hardware provides a user basic physical resource to work upon. The utility software empowers the user to perform a variety of functions on the computer like solving problems, creating documents, playing games, etc.

Operating System and Types of OS

In the past three decades, computers have taken a giant stride towards excellence and high performance. From bulky physical configurations, computers have miraculously transformed into one of the most powerful, yet completely portable devices.

In a similar way, Operating systems have also been developed at a rapid pace to serve the need of users. Let us Operating systems and types of OS.

Single USER OPERATING

Single User Operating system is the initial version of the operating system when the concepts of multithreading and multi-user were yet to be exploited properly. These operating systems can support only one user at a time. The most popular single-user operating system is **Microsoft Windows 3.1, Microsoft Windows 95, [Microsoft DOS](#).**

GRAPHICAL USER INTERFACE(GUI)

This is one of the Operating systems and types based on graphics and interactive in nature. The command was replaced by graphics symbols displayed on the computer screen. The user can do all operations by clicking these graphical symbols. Now the user does not need to cram the lengthy commands or their syntax as they had to do CUI. Examples of GUI are Windows 98, Windows XP, Windows 7, Windows 8, [Windows 10](#), etc.

MULTI USER OPERATING SYSTEM:

Multi-user Operating systems allow more than one user to use the same computer at the same or different times. Some of the falls in this category are Linux, Unix, Microsoft Windows 2000.

Windows 2000 Server was the first version of Windows which allowed us to create several user accounts, groups on a single machine.

MULTITASKING OPERATING SYSTEM

The ability to perform more than one task at a single instance of time is called Multitasking. An Operating system which is capable of doing multiple task or processes while using common processing resources like a CPU is called Multitasking Operating System. Today most Operating system Fall under this category.

MULTITHREADING OPERATING SYSTEM

There are Operating systems which allow different parts of an application or program to run simultaneously. The feature of multithreading can delay the execution response or certain process.For Example, If you host a game server on LAN: your friends utilized different ports of the same game by connecting to your machine at same time . All resources will be utilized from your machine, which can be a performance degrading factor. The Common Example of such Operating system are : Windows XP, Unix, Linux.

REAL TIME OPERATING SYSTEM(RTOS)

RTOS is designed to handle real-life scenarios and problems. Such an Operating system has the capability to prioritize the process, minimize execution time, and work independently with no interdependencies. Whenever you book an air ticket online, you are actually communicating with a real-time machine which is handling your data independently, giving you instant response, and securing your information while maintaining the same features for every customer who is online at the time.

DISTRIBUTED OS

Distributed Operating System runs on computers, which are located in different geographical area, interconnected through a network. it controls there interconnected systems and makes them appear to be a single computer. It allows the link machines to access data, software and process task over common network from different computer irrespective of its location on the globe.
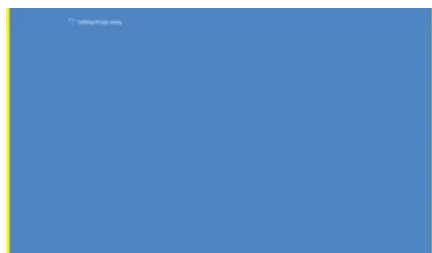
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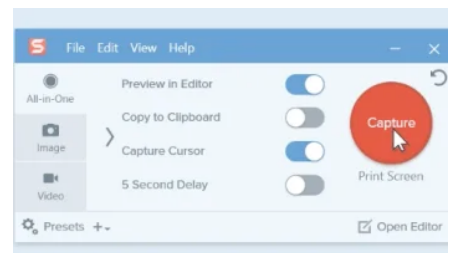

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