

# OPERATING SYSTEM

## INTRODUCTION

An operating system is a system software which is a large collection of software design to acts as an interface between user and computer.

It is operating system which manage the resources of computer and provides an interface by which user can interact with the computer system.

# FUNCTION OF AN OPERATING SYSTEM

- The major function of an operating system includes: -
- **1). Memory management:-** The operating system handles the extremely important job of allocating memory for various program running on the system and deallocate memory at the completions of jobs or programs.
- **2). Process management:-** This is required if several programs have to run concurrently, the operating system then the retained out the CPU time into small fraction of time refered to as time slice and share the CPU time equqlly between the pograms or process till the execution of process or programs not completed.

# FUNCTION OF AN OPERATING SYSTEM

- **3). Device management:-** The operating system manage the devices attached to the system & ensure that the communication between devices and CPU occurred orderly and smoothly.
- **4). File management:-** File management is one of the most visible function of an operating system . Files are commonly stored on physical devices such as floppy disk, hard disk ,magnetic tape whose characteristics and organization are different from each other.

# TYPES OF OPERATING SYSTEM

- There are different types of operating which are categorized as follow :-
- **1). Single user operating system:-** Single user OS is design for only one user which uses the processing power as well as resources of the computer system only for himself or single person . It does not share the resources with other computer or other user.
- The single user OS is user dependent ,not on administrator .The controlling power or security is depend on the user.

# TYPES OF OPERATING SYSTEM

- **2). Multiuser operating system:-** The multiuser OS is designed to support multiple users simultaneously to share the processing power as well as resources on a network, while at a time period, and excellent security feature provided by programs that ensure only authorized user can access the resources.

# TYPES OF OPERATING SYSTEM

- **3). Multiprocessing operating system:-**A Multiprocessing OS supports two or more active process simultaneously.  
Multiprocessing OS is an OS which in addition to support multiple concurrent process. It allows the instructions and data from two or more separate process to reside in primary memory.

# TYPES OF OPERATING SYSTEM

- **4). Real time operating system:-** It is another form of OS which are used in environment where a large numbers of events (mostly external ) appears to computer system, must be accepted and processed in a fix time or within certain dead line .

# TYPES OF OPERATING SYSTEM

- **5). Time sharing operating system:-**It is a form of Multiprogramming . In a time sharing OS more than one user share the computer resources at any instant or moment . In time sharing OS the process or program or job s assigned by multiple user at first resides in the high speed main memory to share the resources.



# TYPES OF OPERATING SYSTEM

- **6). Network operating system:-** It is a collection of software and associated protocol which works on top layer of the individual machine and interconnected to each other to form computer network to share resources on the network in a convenient and cost effective manner.

# TYPES OF OPERATING SYSTEM

- **7). Distributed operating system:-** It is also a collection of software and associated protocol which work on machine and provide environment for-
  - **a).** where user view the system as virtual uni processor but not as a collection of distinct machine .
  - **b).** where users are unaware of the existence of multiple computers on the distributed network.
  - **c).** where users can not logged into remote machine explicitly, which result in an user cannot copy/move files from one place to another.

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