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Functions of OS

1. Booting

Booting is a process of starting the computer operating system starts the computer to work. It checks the computer and makes it ready to work.

2. Memory Management

It is also an important function of operating system. The memory cannot be managed without operating system. Different programs and data execute in memory at one time. if there is no operating system, the programs may mix with each other. The system will not work properly.

3. Loading and Execution

A program is loaded in the memory before it can be executed. 4. 4. Data security: The operating system protects the data stored on the computer from illegal use, modification.

4. Resource Management

Processes that manage peripherals such as printer, mouse, keyboard, monitor, camera, network hardware, wifi, etc.

5. Memory Management

Physical and virtual memory allocation is under the management of the OS and the kernel specifically.

6. UI

How to get data into and out of the machine, text, visuals, network I/O.

7. Application Management

Lunch, start, stop, suspend, timeout, timeshare, user and system programs.

8. File Management

An operating system looks after the file management of the whole system. All files are sorted as per their i-node number. The information about these i-nodes are kept in i-node table and so on. Information about each and every file is available in root directory.

9. Process Management

Whenever a file is executed, it becomes a process. Similarly the process management and execution is one of the important works of OS.

10. CPU Scheduling

The scheduling of process calls and setting them as per priority are also done by OS.

11. Hardware Abstraction

To avoid any damages due to runtime failures to hardware, abstraction layer is also done by OS.