Operating System. Types.

- An operating system (OS) is the program that, after being initially loaded into the computer by a boot program, **manages all the other programs** in a computer. The other programs are called *applications* or application programs.
- In addition, users can interact directly with the operating system through a user interface such as a command line or a graphical user interface (GUI).

Real-time operating system

- **Real-time operating system -** A real-time operating system is one in which processing requests made by the user are executed immediately. It manages the computer resources and handles the operation in a precise way by providing equal amount of time for every operation. It has very little user-interface capability, and no end-user utilities.

Batch processing operating system

- A batch processing operating system is one where processing requests are grouped together in batches to be run all at once. By grouping processing requests together into batches computers can be used more efficiently by removing the slowest part of the system; the user.

Single-User, Single Task Operating System
Single-User, Multi-Task Operating System:

Single-User, Single Task Operating System:

- These operating systems work on single task and single user at a time.
- Example: The Palm OS for Palm handheld computers

Single-User, Multi-Task Operating System:

- These operating systems works on more than one task and process them concurrently at a time.
- Example: all later versions of Windows

Multiuser Operating System:

- In these OS, multiple users are allowed to access the same data or information at a time via a **network**. The users can also interact among each-other. Some examples of this type of Os are: Linux, UNIX, and Windows 7.

Multiprocessing Operating System:

- Here, a single process runs on two or more processors. All the processing and their management takes place in a parallel way, hence this OS are also called as **Parallel Processing**. As their execution works in parallel, these are applicable for high speed execution, and also to increase the power of computer. For example: Linux, UNIX and Windows 7 are examples of multiprocessing OS.

Embedded Operating System:

- These are applicable and developed only for the needed resources and accordingly developed. These OS are less resource intensive. Mainly, applicable in appliances like microwaves, washing machines, traffic control systems etc

Distributed Operating System:

- In these OS, the computers work in co-operation with each other. As this OS manages a group of independent computers and makes them appear to be a single computer is known as a distributed operating system.