Multi-Tasking

Multi-Tasking operating system means that multiple processes(Task, threads or programs) can run in the system simultaneously. Multi-Tasking is used when resources like CPU and Memory are shared.

Each Process is scheduled for a short period of time based on Round robin or FIFO depending (Some algorithm) on the scheduler algorithm of the Operating system.

The time to context switch between two processes are so small that it gives an illusion of Parallelism.

Each Process thinks that it completely Monopolizes the system and entire resources is at its disposal, even though the resources like CPU time can be time shared and Memory can be virtual memory to achieve this.

Multi-User

Unix/Linux is a multiuser operating system, which means that multiple user can log in simultaneously using remote terminal or ssh or Telnet (unsecure plaintext protocol) and they can each run their own copy of same programs or different programs without interfering with each other in anyway.

Each user can have its own disk quotas and permission to access different files and resources in the system. The users accounts are built up in such a way that no two user can interfere or mess with each other process, files or any other resources except when they belong to same group and sufficient permissions are provided.

Multi-core (SMP) Symmetric Multi-Processing

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