

CONCURRENT PROCESS:-When multiple processes have their overlapped execution time , then these processes are known as concurrent processes.

PRINCIPAL of CONCURRENCY:-

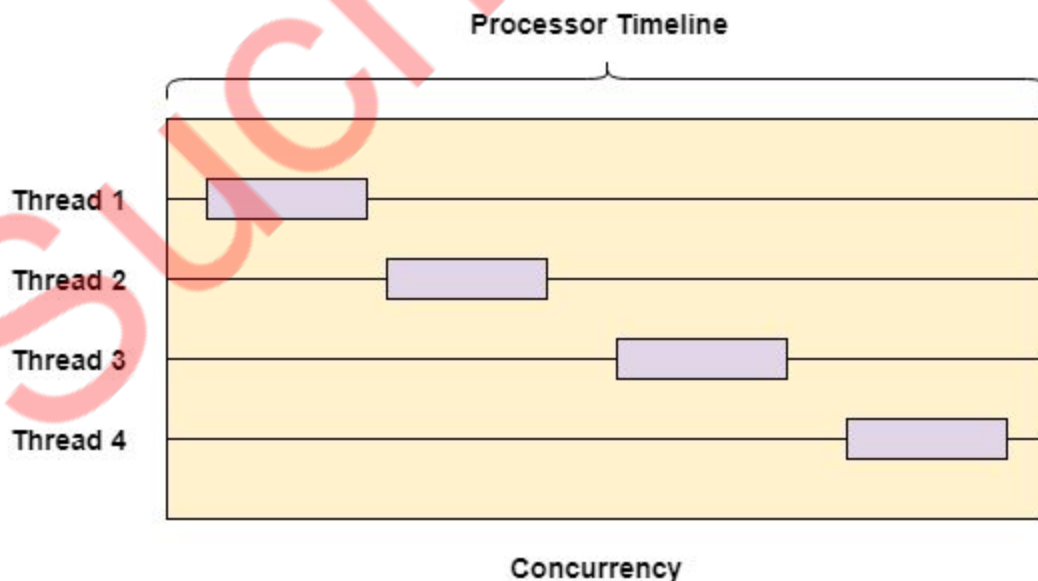
Concurrency is used to increase the throughput of the system. In this, more than one task(task may be a process, thread or job) reside in the main memory at the same time and execute in the overlapping time period.

->It is important to realize that only one process can be running on a particular processor at any instant but many processes may be in the ready and waiting state.

->In the concurrent system, when a process goes to the waiting state, the resources are given to the other process which is in waiting state or in ready state and it is done according to the used CPU scheduling algorithm. So, here the utilization of resources is good therefore overall performance is increased. It is mostly used in uniprocessor systems.

Concurrency

Concurrency means that multiple processes or threads are making progress concurrently. While only one thread is executed at a time by the CPU, these threads can be switched in and out as required. This means that no thread is actually completed totally before another is scheduled. So all the threads are executing concurrently.



Parallelism

Parallelism means that multiple processes or threads are making progress in parallel. This means that the threads are executing at the same time. This can happen if all the threads are scheduled on parallel processors.

