

Theory

Process scheduling is an OS task that schedules processes of different states like ready, waiting and running. Process scheduling allows OS to allocate a time interval of CPU execution for each process. Another important reason for using a process scheduling system is that it keeps CPU busy all the time.

Scheduling Algorithms

1. First come first serve scheduling

As the name suggests, the process which arrives first, gets executed first or we can say that the process which request CPU first, gets the CPU allocated first. It is the non-preemptive type of scheduling. It is easy to understand and to implement.

2. Shortest Job First scheduling

In this algorithm, the job having shortest or less burst time will get the CPU first. It is the best approach to minimize the waiting time. It is the non-preemptive type of scheduling.

3. Round Robin scheduling

In this algorithm, the OS defines a time quantum. All the process gets executed in the cyclic way. Each of the process will get the process for time quantum and get back to the ready queue to wait for its next turn.

4. Shortest remaining time first

It is the preemptive form of SJF. In this algorithm, the OS schedules the job according to the remaining time of execution.