Abstract

Multitasking and multiuser operating system's performance depends on the efficiency of scheduling algorithm. Most commonly used Round Robin scheduling algorithm may not give optimal result if the burst time of processes is very high as compared to the time quantum of Round Robin algorithm. In this case, context switching and turnaround time of processes is very high. In this paper, a two queue based Round Robin Scheduling Algorithm is proposed. In the proposed approach two queues are used. One queue is exclusively used for CPU intensive processes and other queue is used for I/O intensive processes. This reduces the waiting time and turnaround time when there are less or equal numbers of I/O intensive processes. Performance Analysis depending upon CPU intensive and I/O intensive processes shows that it provides better results.

References

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Two Queue based Round Robin Scheduling Algorithm for CPU Scheduling


Index Terms

Computer Science
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Keywords
Scheduling, Round Robin Algorithm, Context Switching, CPU Burst time, I/O Burst time