

Report

To check the performance of different scheduling algorithms we made a test program which creates 10 processes, with increasing IO time and decreasing CPU burst time as the creation time increases.

Outcome

Total time taken for different Algorithms: Round Robin Scheduling := 2011 ticks FCFS Scheduling := 3484 ticks PBS Scheduling := 2044 ticks MLFQ Scheduling := 2049 ticks

Conclusion

Round Robin Scheduling is preemptive and yields after every clock cycle and thus has better results.

1. MLFQ Scheduling makes IO processes to run in higher priority queues and CPU bound processes to lower priority queues and thus it also gives good results. Processes can exploit this algorithm as it can sleep itself just before a the time slice of a queue and thus it reschedules itself in the same queue forever.
 2. PBS Scheduling gives higher priority to IO processes hence they run first and gives good result.
 3. FCFS Scheduling is the worst among the given Algorithms and much more time than other three. So to sum up the results the efficiency of different algorithms will be in the order: $FCFS < RR \leq PBS \leq MLFQ$
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Bonus

The graph is included as graph.png

This shows that IO bound processes are scheduled in Queues of higher priority(0-1) and CPU bound processes are scheduled in lower priority queues(3-4).