Abstract

Round-Robin (RR) is the vastly used process scheduling algorithm where, all processes are allocated some time shares in a circular order. If a process is able to complete its execution within this time quantum share, it is removed from the ready queue else it goes back at the end of the queue. Round-Robin scheduling is simple, gives fair allocation of CPU to the process and is starvation free. However there is few performance issues related to it. One of them is that even if there is a fractional amount of time left for a process to complete its execution, and its time share expires, it is preempted. Now this process has to wait unnecessarily to get its next chance to complete this fractional remaining execution. In this paper the proposal for the modification which will eradicate this performance issue of the conventional round robin algorithm is proposed thereby making it fairer.

References

- Mohd Abdul Ahad, Modifying Round Robin Algorithm for Process Scheduling using Dynamic Quantum Precision, IJCA Special Issue on Issues and Challenges in Networking, Intelligence and Computing Technologies ICNICT, pp. 5-10, November. 2012.

Index Terms
Computer Science
Algorithms

Keywords
Time Quantum  Turnaround Time  Number of Cycles  Remaining Time  Number of Context switches
Wait time.