Jaypee Institute of Information Technology
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ALGORITHM AND PROBLEM SOLVING LAB

CPU SCHEDULING ALGORITHM PROJECT SYNOPSIS

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Project Name: CPU Scheduling Algorithms

Objective:

CPU scheduling algorithm objective is to allocate the available CPU time among multiple processes in an efficient and fair manner.

Here are some methods by which the algorithms works-

1. Maximize CPU utilization by ensuring that the CPU is using all the resources available.
2. Minimize response time according to the user's satisfaction.
3. Resources are fairly allocated among the processes such that no process runs sort of resources.
4. The number of processes that are completed per unit time should be maximized to increase the overall efficiency of the system.
5. Prioritization as in the scheduler should be able to process based on their importance and allocate resources accordingly.

Algorithms to be used-

- First Come First Serve
- Shortest Job First
- Longest Job First
- Longest Remaining Job First
- Round Robin
- Priority (Preemptive and Non Preemptive)
- Highest Response Ratio next
- Hybrid

Compiler/Language Requirements-

Since the CPU scheduling algorithm is a conceptual concept and not a specific implementation, there are no specific C++ compiler requirements for it.

We need a compiler that supports C++11 or later versions, as some of the standard library features introduced in these versions can be useful in implementing such algorithms

Submitted to:
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