Project Specs

Saturday, September 30, 2023 12:42 PM

Description:

Given a set of (simulated) "jobs", run the following Job Scheduling Algorithms and evaluate the performance of each.

(1) FIFO

(2) Shortest Job Algorithm (non-premptive)

(3) Shortest Remaining Job Algorithm (pre-emptive)

(4) "Highest" Priority Algorithm (assigned)

(5) Round-Robin: with and without context switch

All algorithms should be analyzed by collecting
- turn-around time
- through-put for a fixed length of time.

Output should include: a table (similar to the "quiz" output table) showing values for each algorithm; also calculate the average-turnaround time

also calculate the average-turnaround time for each algorithm. and through-put.

The jobs will be randomly generated and stored as "job Objects". Each jobObject will include:

- arrivalTime
- cpuTime
- priority
- remaining time

Your program will generate 25 jobs, simulate (run) the algorithms and display the original job information and the table.

Documentation should include
- data structures used and why
- "runtimes" (Big-"O") for the code
- summary of your results
- appropriate usage of each algorithm.

I am posting pseudocode to generate the 25 jobs.

generate the 25 jobs.

C++ or Java are fine. No Python!