Operating Systems

Assignment: -

Implementation Multilevel Queue (MLQ) CPU Scheduling

Description: -

The MLQ has three queues,

- First the high queue is represented by **0 in the priority column**, and the processes are scheduled by **Round Robin** scheduling algorithms with **q = 3** in this queue.
- Second the medium queue is represented by **1 in the priority column**, and the processes are scheduled by **Shortest Remaining First** scheduling algorithms with **q = 2** in this queue
- Third the low queue is represented by **2 in the priority column**, and the processes are scheduled by **Shortest Job Next** scheduling algorithms in this queue

Input: -

you will get any number of processes as input each process has:

- Process name e.g. p0, p1, ...
- Arrival time (integer number)
- Execution time (CPU Burst time) (integer number)
- Queue number (between 0, 2)

Output: -

Describe line by line every event that occurs

Example: -

At t = 0 p0 arrived the queue
        p0 entered kernel
At t = 1 p1 arrived the queue
At t = 3 p0 leaved the kernel and entered the queue
        p1 entered the kernel
and so on ……

and at the end print each process Waiting Time and Average Waiting Time

Bonus: -

Bonus 3 points if you do GUI that print Kernel Diagram and Ready Queue in Table

Like: -

Kernel Diagram

Ready Queue

Deadline: Tuesday 28/11 in Section

Maximum number in group 5 student.