Quiz 2: CPU Scheduling

Due date: midnight of SundayFeb 19, 2022

**[Question 1]** Tag each of the following processes as either CPU-bound or I/O-bound:

1. A text editor. **I/O-Bound**
2. 3D rendering software. **CPU-Bound**

**[Question 2]** Can you come up with your own preemptive scheduling algorithm that guarantees very fast response time for all processes? Explain how it works.

The preemptive algorithm that I came up with is basically a FCFS algorithm but the key difference is that processes that arrive to the ready queue have highest priority to be ran until they are ran for one clock tick and then my algorithm switches back to the task it was working on once every processes in the ready queue has been ran for at least 1 time clock. This ensures the shortest possible response time for a processes (as long as not other processes arrive at the same time it does and if that is the case all processes that arrive at the same time step will all be run for 1 clock tick in succession). IT makes sure there is a short response time by trying to run every processes for at least one second as soon as it gets to the ready queue

**[Question 3]** What happens to Round Robin performance if we pick a very large quantum? Also, what scheduling algorithm would be similar to Round Robin under that condition?

If we pick a very large quantum for the Round Robin algorithm it will definitely increases the average response time and most likely increase the average wait time (depending on the type of processes of course). When you have a Round Robin algorithm with a very large quantum it basically becomes a first come first serve algorithm.

**[Submission]**

Add your answered document to the ***Quizzes*** directory in your shared folder on Drive.