Exercise 12: Scheduling

Started: Nov 2 at 10:26am

Quiz Instructions

Here is a PDF file that will help you complete the exercise: Exercise12-scheduling.pdf

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Question 1 — 1 pts

Consider the following list of processes:

If time starts at 0, then A arrives at time 0 and gets 3 time units of service. At this point it is complete and leaves. B arrives at time 2, waits 1 time unit, and then runs for 6 time units. We assume that once a process has the CPU it runs to completion

Process	Arrival Time	Service Time
A	0	3
B	2	6
C	4	4
D	6	5
E	8	2

Fill in the chart in the provided pdf file for the remaining 3 processes using a **First-Come-First-Served** algorithm. (The bars in the last 3 rows indicate the arrival time of the process.

Compute the following values:

Total wait time: _____ time units

Total running time: _____ time units

Average wait time: _____ time units

Average time to completion: [ ] time units (wait time plus run time for each process)

Question 2

1 pts

Now create a schedule that **minimizes wait time**. You may not change the arrival time, and once a process begins running, it runs to completion. How do you choose the next process to run?

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Question 3 — 1 pts

What is the minimum average wait time?

What is the average turnaround time?

Question 4 — 1 pts

When we look at the Round Robin Algorithm, it doesn't really make sense to talk about the wait time because it is technically waiting in between times when it gets the CPU. As a user, we are interested in when the job completes relative to when it arrives, so the most interesting metric is turnaround time.

What is the average turnaround time for the processes above? [tt]

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