

Course #: SYSC4001 A

Lab #: 3

Lab Section #: L1

Part 1

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Date submitted: December 1, 2025

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Discussing Results:

Obtained from python script:

The average throughput for the EP scheduler: 0.0995260663507109 ms

The average throughput for the RR scheduler: 0.004931506849315068 ms

The average throughput for the EP+RR scheduler: 0.004736842105263158 ms

The average turnaround for the EP scheduler: 2.142857142857143 ms

The average turnaround for the RR scheduler: 44.27777777777778 ms

The average turnaround for the EP+RR scheduler: 55.388888888888886 ms

The average response for the EP scheduler: 0.0 ms

The average response for the RR scheduler: 2.722222222222223 ms

The average response for the EP+RR scheduler: 66.33333333333333 ms

The average wait time for the EP scheduler: 6.857142857142857 ms

The average wait time for the RR scheduler: 319.55555555555554 ms

The average wait time for the EP+RR scheduler: 232.33333333333334 ms

Analysis of schedulers:

All results obtained were an average of all different kinds of test cases ranging from I/O bound, CPU bound, and both.

Analysis for EP:

In the test cases for EP, I believe most of the processes had an arrival time of 0, which is probably why the response time is so fast. However, having the shortest process times if they were equal, it would have been the slowest scheduler as there is no preemption.

Analysis for RR:

The response is one of the best for the RR, as it cycles through the ready queue without priority; however, its throughput and wait time are still inferior to EP+RR.

Analysis for EP+RR:

Based on the results, the EP+RR would be the best scheduler except for its poor response time as if a process has a higher priority, it will just hog all the upcoming time quantum's until it is finished.