



CS-342 OPERATING SYSTEMS PROJECT 2

SECTION #01

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Part 0 - Graph Drawing Method:

New program is created to write the random values generated with the following parameters - r T T1 T2 L L1 L2 PC equals 200, 10, 500, 100, 10, 500, 100. This way we had a huge input file that enabled us to do all tests on the same data.

Part A:

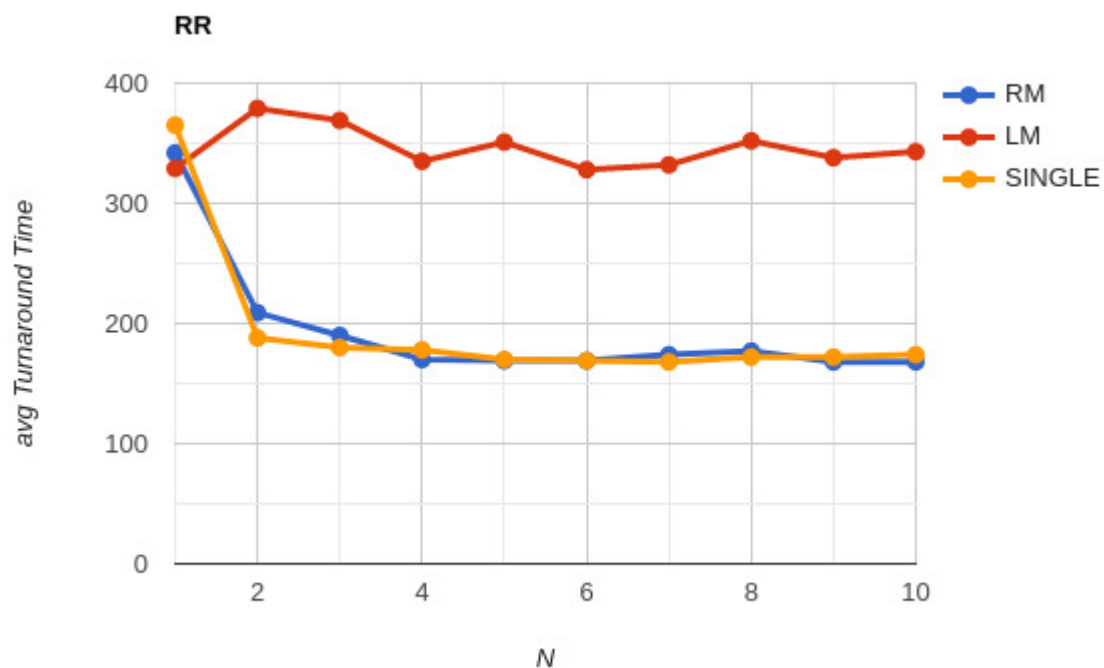


Figure 1: Average Turnaround Time for Round Robin for all queue selection algorithms

Explanation:

As seen in the graphic, turn around time of the Round Robin method and single queue approach is similar and Load balancing is higher than them. It may be because interarrival times are high in this simulation and the queue selection algorithm always selects the one queue and the other threads remain idle. That's why this graph is like this.

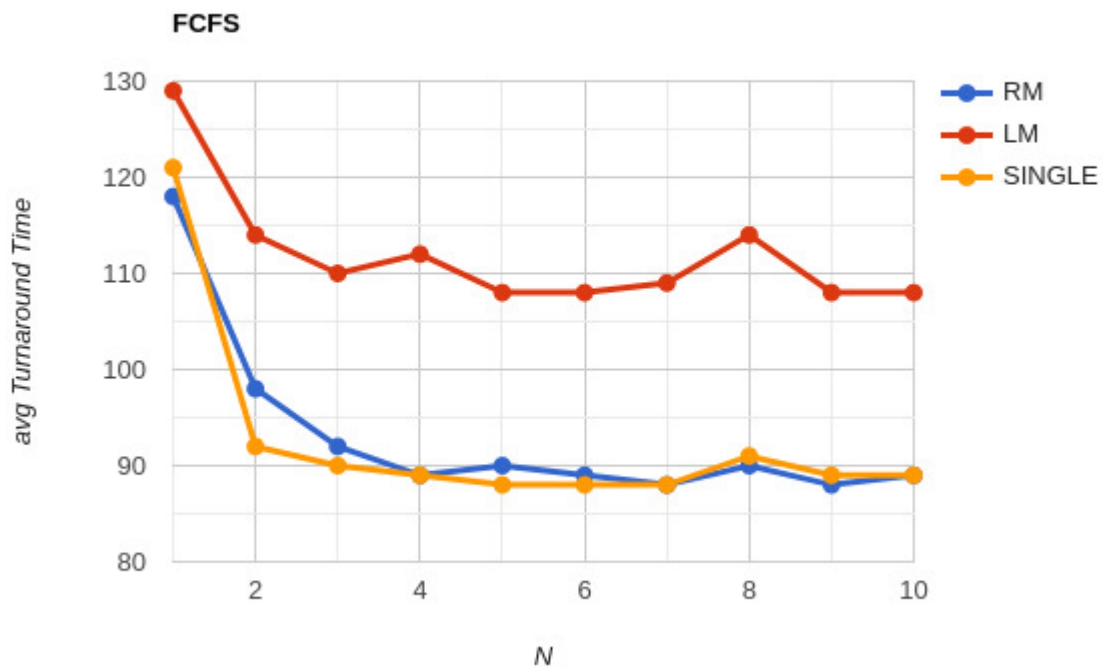


Figure 2: Average Turnaround Time for FCFS for all queue selection algorithms

Explanation:

This graph is like the previous one. One queue works more than others in the LM method. That's why it has more average turnaround time. RM and LM are similar since all threads works nearly same.

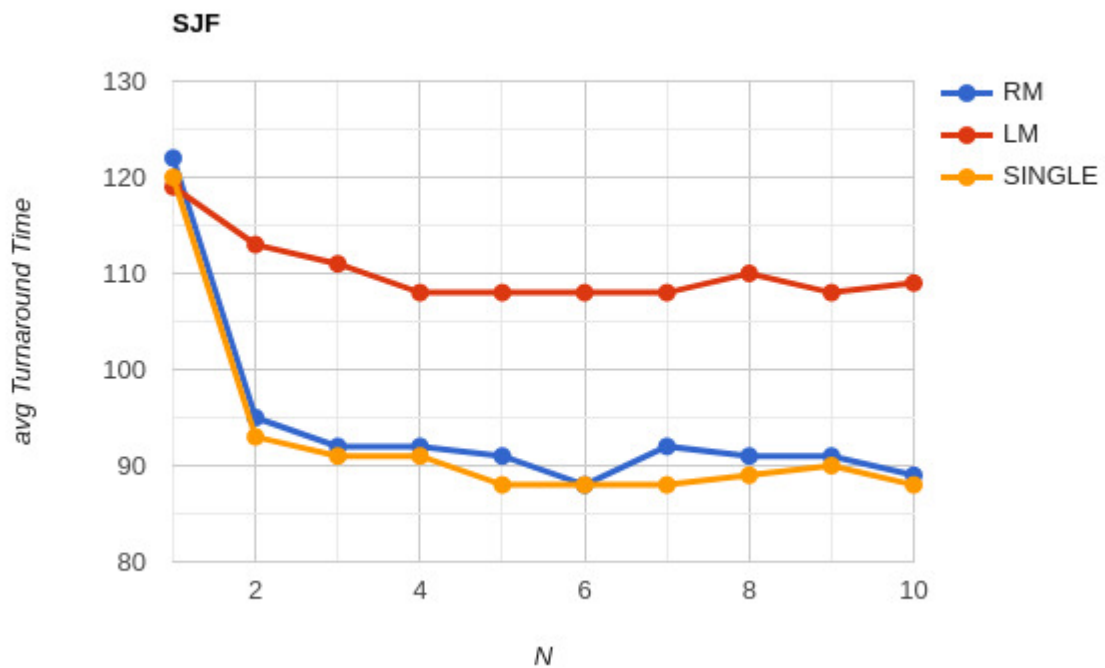


Figure 3: Average Turnaround Time for SJF for all queue selection algorithms
Explanation:

This graph is like the previous ones. One queue works more than others in the LM method. That's why it has more average turnaround time. RM and LM are similar since all threads work nearly the same.

Part B:

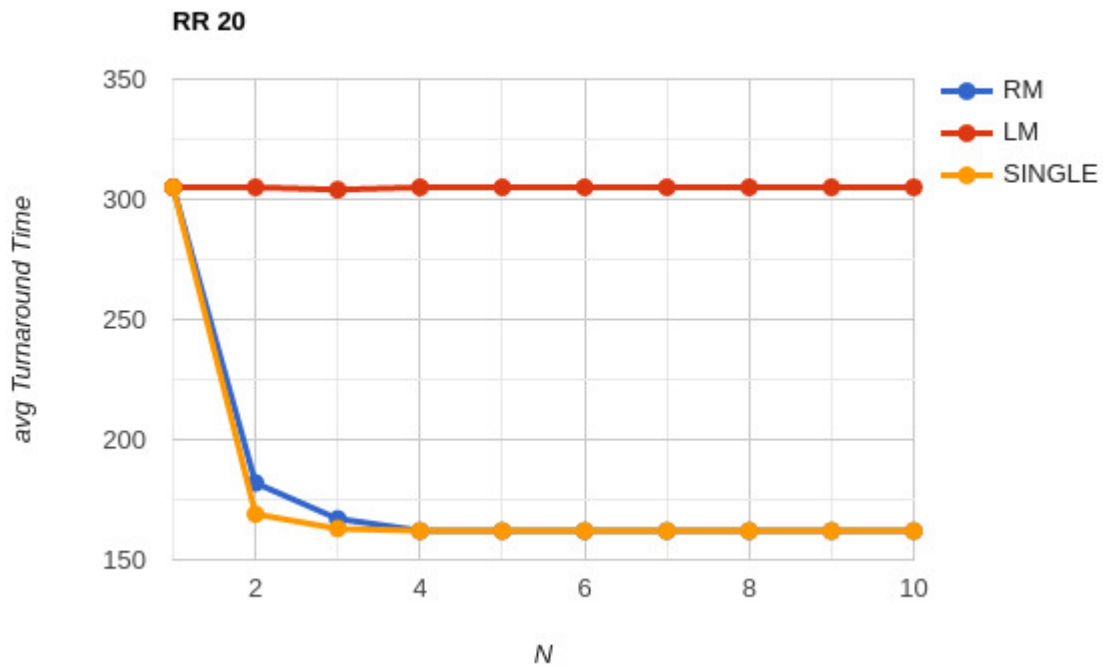


Figure 4: Average Turnaround Time for RR with time quantum 20 for all queue selection algorithms

Explanation:

This graph is like the previous ones. One queue works more than others in the LM method. That's why it has more average turnaround time. RM and LM are similar since all threads work nearly the same.

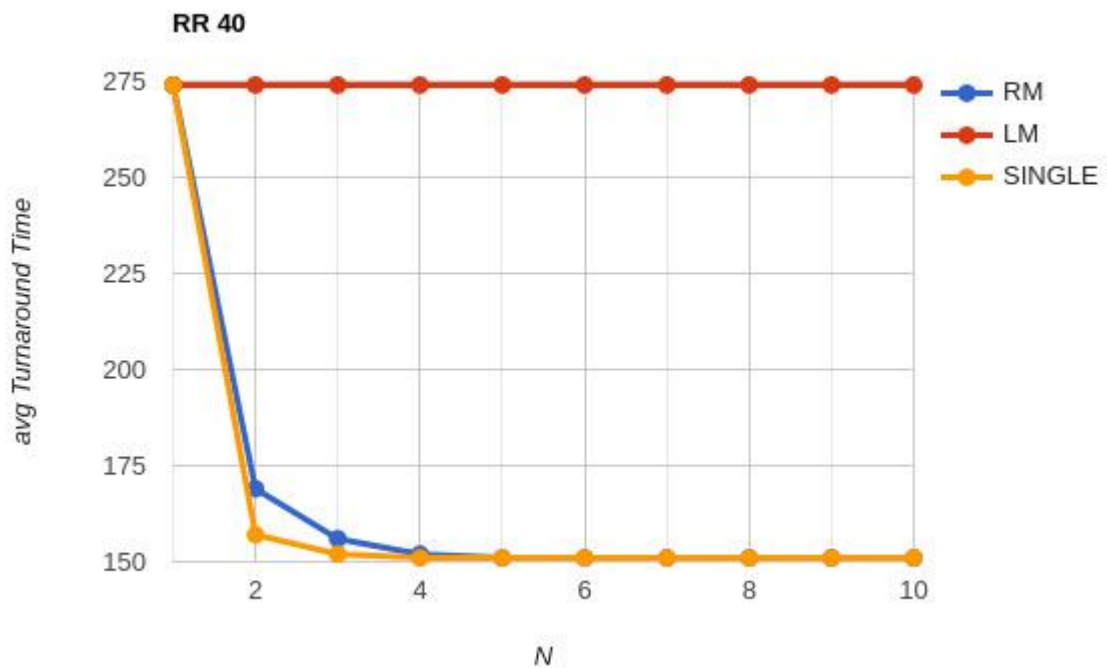


Figure 5: Average Turnaround Time for RR with time quantum 40 for all queue selection algorithms

Explanation:

This graph is like the previous ones. One queue works more than others in the LM method. That's why it has more average turnaround time. RM and LM are similar since all threads work nearly the same.

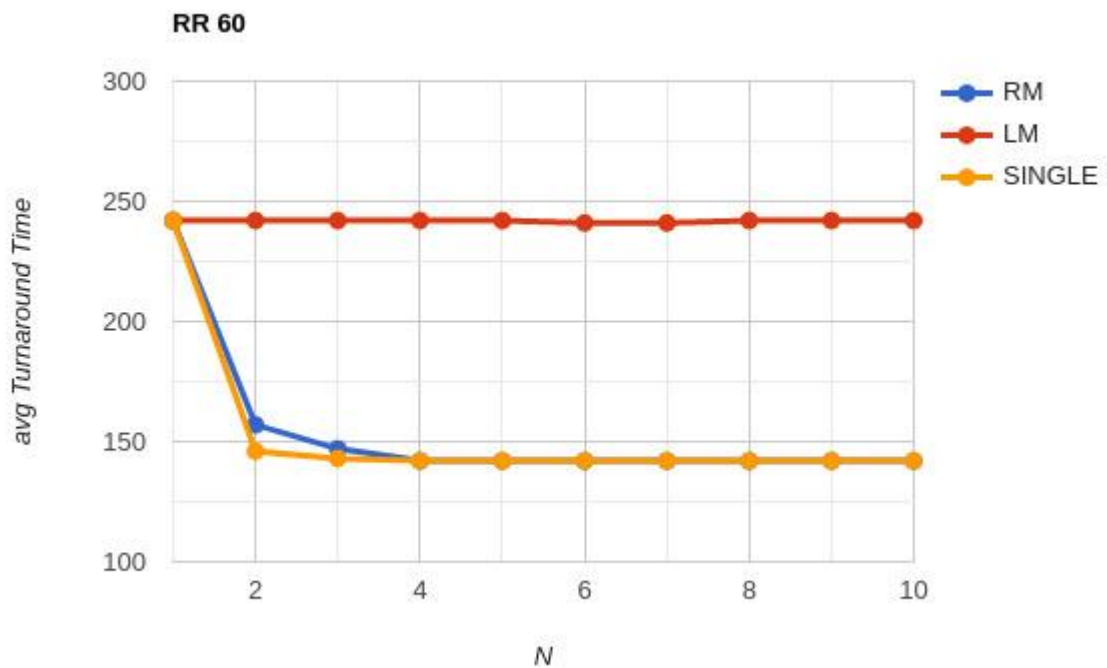


Figure 6: Average Turnaround Time for RR with time quantum 60 for all queue selection algorithms

Explanation:

This graph is like the previous ones. One queue works more than others in the LM method. That's why it has more average turnaround time. RM and LM are similar since all threads work nearly the same.