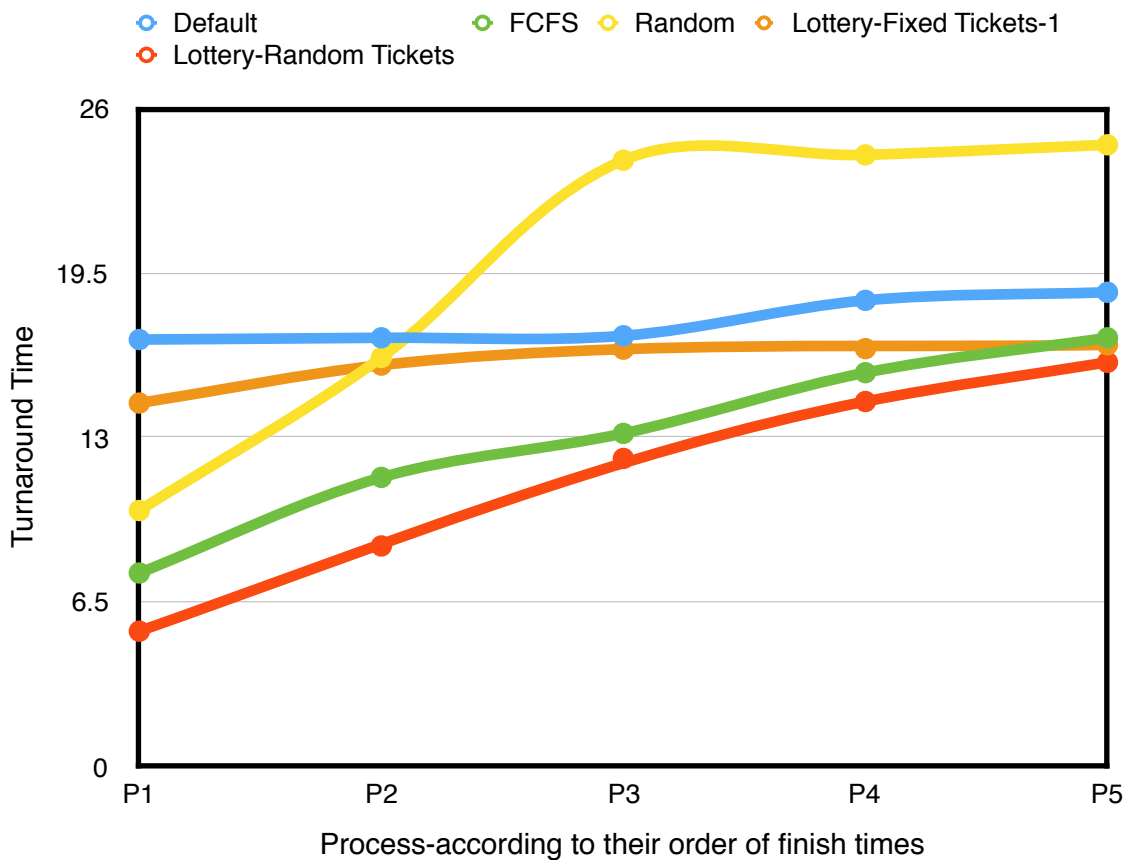
ANALYSIS AND RESULTS



DEFAULT ALGORITHM: The default algorithm in MINIX maintains 16 queues for different priority levels. Round robin scheduling is used at each priority level, where the highest priority jobs are run first. The time quantum is the shortest for highest priority queues and the largest for lower priority queues. It adjusts the priority of a job after every time quantum it utilises. Hence as seen in the graph, since the algorithm is preemptive, there's a slight increasing trend seen in later process' turnaround times.

FCFS ALGORITHM : The FCFS algorithm first runs each process for one time quantum, and then completely executes the job that came in first, in a non-preemptive manner. Hence there's an increasing trend seen in the graph for jobs that arrive later. The jobs arriving at a later time have larger end time values, hence larger turnaround times.

RANDOM ALGORITHM : The random algorithm is the same as the FCFS, also being non-preemptive. However, it selects a process at random to execute instead of the first process that arrived.

LOTTERY SCHEDULING : The lottery scheduling algorithm assigns a number of tickets to every process and selects a random ticket as a lottery and runs the process with that ticket. This is a preemptive algorithm. In the above graph, the respective tickets for the processes are :
P1 - 400
P2 - 200
P3 - 100
P4 - 50
P5 - 25
The process that gets larger number of tickets has a higher probability of getting selected and hence gets executed in a shorter amount of time. As we can see from the graph, the lottery tickets decrease as the process number increases and hence the turnaround times increase.