**Introduction**

The main objective for this assessment is to show the use of simulated algorithms with java language. The first algorithm to implement was First Come First Served which is a first in first out scenario. The second algorithm is Shortest Remaining Time algorithm which is a pre-emptive version of shortest job next algorithm where the processor is allocated to the job nearest to completion. The third algorithm is the Multi-level Feedback variable algorithm performs multiple queues of different algorithms where the first queues are round robin and the last is first come first served. The last algorithm is the lottery scheduling algorithm where tickets are randomised with integers given in the datafiles to give something close to a lottery of outputs.

**Main Body**

In the First Come First Server algorithm implementation, the observed relative performance was to the specified outcome. Turn around time through each process and waiting time were as expected.

In the Shortest Remaining Time algorithm implementation, the observed results were to the specified outcome. The simulated algorithm found that the turn around time and waiting time for the processes were correct.

In the Multi-level Feedback Variable algorithm implementation, the observed performance was not to the expected results. In the simulated algorithm my turn around time and waiting time results was not to the specified output results. I believe this was because my simulated algorithm was incorrect or there was interference with the output.

The Lottery algorithm implementation was not completed and therefore does not output in the results.

The average turn around time and average waiting time for the algorithms was to spec other than the Lottery algorithm which was not completed and therefore not in the averages.

**Conclusion**

The algorithms simulate a single processor processing data from the datafiles in the specified way of each algorithm. The outputs of these simulated algorithms show the turn around time and waiting time of each process in the processor.