**Assignment Two Report.**

**Team Cache City.**

**Final Report**

Our team developed a program that uses the 6 algorithms that was gone over class. First Come First Served (FCFS), Highest Priority First (HPF) (preemptive), Highest Priority First (non-preemptive) (HPF), Shortest Remaining Time (SRT), Round Robin (RR), and Shortest Job First (SJF. We used the java randomization library to generate random numbers using seeds (int). We made a class for each algorithm that implements it. We ran each algorithm 5 times and developed a class that would calculate the averages.

First for turnaround time, we noticed that the numbers between First Come First Served and Shortest Job First the numbers throughout the 5 runs were similar. The average for FCFS was 28.02, SJF 27.41. For Shortest Remaining Time we experienced a peak on the second run, the turnaround time went up two 60. Round Robin numbers were the highest. The turnaround time ranged from 40-70. HPF had the lowest numbers of all. It ranged around 5 for each of the 5 runs. HPF preemptive had low numbers too. It ranged from 15 to 20.

Second was the Quantum waiting time. The numbers for FCFS and SJF ranged from 23-26. One of the FCFS runs was lower which hit 10. SRT had some runs which was as low as 0, and it peaked at 38. HPF waiting time was again the lowest. HPF with preemptive was a little higher, the numbers ranged from 6-20.

Third the response time. The HPFP had the lowest response time. For 5 runs it was around 7 went as low as 4.8 HPF response time ranged from 55 to 66. The RR algorithm had some runs which went low to 35 but average was at 50. SRT had a high response time up to 32. FCFS had low responses time which averaged around 4.9.

Finally, the throughput numbers for FCFS and SJF averaged around 15.5. FCFS was a consistent algorithm with good numbers for these processes. The SRT had very low throughput start at 2 3 and 5 for the first 3 runs. It averaged at 3.4. The RR throughput numbers averaged at 12. For the HPF and HPFP the throughput averaged at 15.2 and 15.4.