**Compilation instructions**

g++ project3.cpp

./a.out

**Design Write-Up**

My ready queue is a singly linked list and my run state is a string of the run states process name. When a new process enters, I check the priority with the current running process and swap if necessary. At the end of file reading per run, I first check if the running state has finished running. If it has then I kill the node and assign the next highest priority process to the run state. If it has not finished running, then I check if counter has reached quantum. If it has then I assign a new run state. Then I increment the wait times of every node in the waiting stage and increment the turnaround time for all the processes including the running state. Then decrement the burst time of the run state.