CPU Scheduling

Exp# 4a. To schedule a snapshot of processes queued according to FCFS (First Come First Serve) Scheduling.

Algorithm:

1. Define an array of structure processes with members pid, btime, wtime & ttime.
2. Get length of the ready queue, i.e., number of processes (say n).
3. Obtain btime for each process.
4. The wtime for the first process is 0.
5. Compute wtime and ttime for each process as:
    (a) wtime (i+1) = wtime (i) + btime (i)
    (b) ttime (i) = wtime (i) + btime (i)
6. Compute average waiting time awat and average turnaround time atur.
7. Display the btime, ttime and wtime for each process.
8. Display GANTT chart for the above scheduling.
9. Display awat time and atur.
10. Stop

Exp# 4b. To schedule a snapshot of processes queued according to SJF (Shortest Job First) Scheduling.

Algorithm:

1. Define an array of structure processes with members pid, btime, wtime & ttime.
2. Get length of the ready queue, i.e., number of processes (say n).
3. Obtain btime for each process.
4. Sort the processes according to their btime in ascending order.
    (a) If two processes have the same btime, then FCFS is used to resolve the tie.
5. The wtime for the first process is 0.
6. Compute wtime and ttime for each process as:
    (a) wtime (i+1) = wtime (i) + btime (i)
    (b) ttime (i) = wtime (i) + btime (i)
7. Compute average waiting time awat and average turnaround time atur.
8. Display btime, ttime and wtime for each process.
9. Display GANTT chart for the above scheduling.
10. Display awat time and atur.
11. Stop