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[abhimanyu@abhimanyu-pc Debug]$ ./osapp
program to simulate cpu scheduling by ABHIMANYU MAURYA( 1713310003 AKTU )
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1.it can accept unsorted data
2.it can calculate cpu idle time

enter number of processes: 4
enter arrival time: 0
enter bus time: 10
enter arrival time: 1
enter bus time: 6
enter arrival time: 3
enter bus time: 2
enter arrival time: 5
enter bus time: 4
do you want to enter priority for processes(y/n)
n

1. first come first serve
2. sortest job first
3. sortest remaining time next
4. round robin
5. decreasing priority (non - preemptive)
6. increasing priority (non - preemptive)
7. decreasing priority ( preemptive )
8. increasing priority ( preemptive )
9. run 1 - 4
10. run 5 - 8
99. exit
enter your choice: 9

first come first serve process scheduling

| P0 (0.0-10.0)|| P1 (10.0-16.0)|| P2 (16.0-18.0)|| P3 (18.0-22.0)|

data after gantt chart:
process        AT      BT          FT      TAT     WT       RT
P0     :   0.000    10.000      10.000  10.000  0.000   0.000
P1     :   1.000    6.000       16.000  15.000  9.000   10.000
P2     :   3.000    2.000       18.000  15.000  13.000  16.000
P3     :   5.000    4.000       22.000  17.000  13.000  18.000

average turn arround time = 14.250
average waiting time = 8.750
throughput of the system = 0.182
cpu idle time = 0.000

sortest job first scheduling

| P0 (0.0-10.0)|| P2 (10.0-12.0)|| P3 (12.0-16.0)|| P1 (16.0-22.0)|

data after gantt chart:
process        AT      BT          FT      TAT     WT       RT
P0     :   0.000    10.000      10.000  10.000  0.000   0.000
P1     :   1.000    6.000       22.000  21.000  15.000  16.000
P2     :   3.000    2.000       12.000  9.000   7.000   10.000
P3     :   5.000    4.000       16.000  11.000  7.000   12.000
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average turn arround time = 12.750
average waiting time = 7.250
throughput of the system = 0.182
cpu idle time = 0.000

sortest remaining time next scheduling
| P0 (0.0-1.0)|| P1 (1.0-3.0)|| P2 (3.0-5.0)|| P1 (5.0-9.0)|| P3 (9.0-13.0)|
| P0 (13.0-22.0)|

data after gantt chart:
process        AT      BT          FT      TAT     WT       RT
P0     :   0.000    10.000      22.000  22.000  12.000  0.000
P1     :   1.000    6.000       9.000   8.000   2.000   1.000
P2     :   3.000    2.000       5.000   2.000   0.000   3.000
P3     :   5.000    4.000       13.000  8.000   4.000   9.000

average turn arround time = 10.000
average waiting time = 4.500
throughput of the system = 0.182
cpu idle time = 0.000

round robbin process scheduling

enter time quantum: 2
| P0 (0.0-2.0)|| P0 (2.0-4.0)|| P1 (4.0-6.0)|| P0 (6.0-8.0)|| P2 (8.0-10.0)|
| P1 (10.0-12.0)|| P3 (12.0-14.0)|| P0 (14.0-16.0)|| P1 (16.0-18.0)|
| P3 (18.0-20.0)|| P0 (20.0-22.0)|

data after gantt chart:
process        AT      BT          FT      TAT     WT       RT
P0     :   0.000    10.000      22.000  22.000  12.000  0.000
P1     :   1.000    6.000       18.000  17.000  11.000  4.000
P2     :   3.000    2.000       10.000  7.000   5.000   8.000
P3     :   5.000    4.000       20.000  15.000  11.000  12.000

average turn arround time = 15.250
average waiting time = 9.750
throughput of the system = 0.182
cpu idle time = 0.000

1. first come first serve
2. sortest job first
3. sortest remaining time next
4. round robin
5. decreasing priority (non - preemptive)
6. increasing priority (non - preemptive)
7. decreasing priority ( preemptive )
8. increasing priority ( preemptive )
9. run 1 - 4
10. run 5 - 8
99. exit
enter your choice: 99
[abhimanyu@abhimanyu-pc Debug]$
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