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Documentation on :
Processes Scheduler Project

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Section: 2

How to use the program

- 1- Choose they type of the scheduler
- 2- Enter the number of the processes
- 3- If Round Robin has been chosen you need to enter the quantum number

(for the next steps you need to add ' , ' after each process data)

For example (0,3,7,20)

- 4- Write the Arrival time of each process
- 5- Write the Burst time for each process
- 6- If Priority scheduler has been chosen enter the priority of each process
- 7- Press “Start simulation” button to show the gantt chart and the average waiting time
- 8- You can fix any data you have entered or you can press “Rest” button to clear all data

Some test cases for the program

1- FCFS

Choose Type of Scheduler :

☒ FCFC

☐ SJF (Preemtive)

☐ SJF (NonPreemtive)

☐ Priority (Preemtive)

☐ Priority (NonPreemtive)

☐ Round Robin

Each process should be followed by ' , '

Arrival Time :

1,4,7,10

Burst Time :

2,5,7,3

priority :

Quantum Number :

Enter no of proccesses :

4

Start Simulation

Reset

Idle	P1	Idle	P2	P3	P4
0.0	1.0	3.0	4.0	9.0	16.0
to	to	to	to	to	to
1.0	3.0	4.0	9.0	16.0	19.0

Average waiting time : 2.0

2- SJF (Preemptive) (Short Job Remaining)

Choose Type of Scheduler :

☐ FCFC

☒ SJF (Preemptive)

☐ SJF (NonPreemptive)

☐ Priority (Preemptive)

☐ Priority (NonPreemptive)

☐ Round Robin

Enter no of proccesses :

4

Start Simulation

Each process should be followed by ' , '

Arrival Time :

0,2,4,5

Burst Time :

7,4,1,4

priority :

Quantum Number :

Reset

P1	P2	P3	P2	P4	P1
0.0	2.0	4.0	5.0	7.0	11.0
to	to	...	to	to	to
2.0	4.0	5.0	7.0	11.0	16.0

Average waiting time : 3.0

3- SJF (Non Preemptive)

Choose Type of Scheduler :

☐ FCFC

☐ SJF (Preemtive)

☒ SJF (NonPreemptive)

☐ Priority (Preemptive)

☐ Priority (NonPreemptive)

☐ Round Robin

Enter no of proccesses :

4

Each process should be followed by ' , '

Arrival Time :

0,2,4,5

Burst Time :

7,4,1,4

priority :

Quantum Number :

Start Simulation

Reset

P1	P3	P2	P4
0.0	7.0	8.0	12.0
to	to	to	to
7.0	8.0	12.0	16.0

Average waiting time : 4.0

4- Priority (Preemptive)

Choose Type of Scheduler :

- ☐ FCFC
- ☐ SJF (Preemptive)
- ☐ SJF (NonPreemptive)
- ☒ Priority (Preemptive)
- ☐ Priority (NonPreemptive)
- ☐ Round Robin

Enter no of proccesses :

5

Each process should be followed by ' , '

Arrival Time :

0,2,5,7,10

Burst Time :

10,1,2,1,5

priority :

3,1,4,5,2

Quantum Number :

Start Simulation

Reset

P1	P2	P1	P5	P1	P3	P4
0.0	2.0	3.0	10.0	15.0	16.0	18.0
to	to	to	to	to	to	to
2.0	3.0	10.0	15.0	16.0	18.0	19.0

Average waiting time : 5.6

5- Priority (Non preemptive)

Choose Type of Scheduler :

- ☐ FCFC
- ☐ SJF (Preemtive)
- ☐ SJF (NonPreemptive)
- ☐ Priority (Preemptive)
- ☒ Priority (NonPreemptive)
- ☐ Round Robin

Enter no of proccesses :

5

Each process should be followed by ' , ' ,

Arrival Time :

0,0,0,0,0

Burst Time :

10,1,2,1,5

priority :

3,1,4,5,2

Quantum Number :

Start Simulation

Reset

P2	P5	P1	P3	P4
0.0	1.0	6.0	16.0	18.0
to	to	to	to	to
1.0	6.0	16.0	18.0	19.0

Average waiting time : 8.2

6- Round Robin

Choose Type of Scheduler :

☐ FCFC

☐ SJF (Preemtive)

☐ SJF (NonPreemptive)

☐ Priority (Preemtive)

☐ Priority (NonPreemptive)

☒ Round Robin

Each process should be followed by ' , '

Arrival Time :

0,1,2,3

Burst Time :

53,17,68,24

priority :

Quantum Number :

20

Enter no of proccesses :

4

Start Simulation

Reset

P1	P2	P3	P4	P1	P3	P4	P1	P3	P3
0.0	20.0	37.0	57.0	77.0	97.0	117.0	121.0	134.0	154.0
to	to	to	to	to	to	to	to	to	to
20.0	37.0	57.0	77.0	97.0	117.0	121.0	134.0	154.0	162.0

Average waiting time : 71.5