CSC227 PROJECT

Students Identification	
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SAMPLE RUN

```
please, choose one of the follwing choices(1-4)
1.Enter process' information
2.Report detailed information about each process
3.Report the average turnaround time, waiting time, and response time
4.Exit the program
▶▶ 1
Enter the number of processes:
▶▶ 3
▶▶ please enter the priority of process (1-2)1
▶▶ please enter Arrival Time: 0
▶▶ CPU Burst: 2
▶▶ please enter the priority of process (1-2)1
▶▶ please enter Arrival Time: 2
▶▶ CPU Burst: 4
▶▶ please enter the priority of process (1-2)2
▶▶ please enter Arrival Time: 4
▶▶ CPU Burst: 1
please, choose one of the follwing choices(1-4)
1.Enter process' information
2.Report detailed information about each process
3.Report the average turnaround time, waiting time, and response time
4.Exit the program
▶▶ 2
P1|P1|P2|P2|P2|P2|P3|
please, choose one of the follwing choices(1-4)
1.Enter process' information
2.Report detailed information about each process
3.Report the average turnaround time, waiting time, and response time
4.Exit the program
▶▶ 3
Average turn around time: 3.0
Average waiting time: 0.6666666666666666
 Average responce time : 0.6666666666666666

please, choose one of the follwing choices(1-4)
1.Enter process' information
2.Report detailed information about each process
3.Report the average turnaround time, waiting time, and response time
4.Exit the program
▶▶ 4
```

Report1.txt

```
Q1 :
process ID    Process Priority    CPU burst    Arrival time    Start time    Termination time    Turn around time    Waiting time    Response time
P1            1                   2            0               0             2                   2                   0               0
P2            1                   4            2               2             6                   4                   0               0
Q2 :
process ID    Process Priority    CPU burst    Arrival time    Start time    Termination time    Turn around time    Waiting time    Response time
P3            2                   1            4               6             7                   3                   2               2
```

Report2.txt

```
Average turn around time =3.0
Average waiting time =0.6666666666666666
Average responce time =0.6666666666666666
```

```
----jGRASP exec: java userMain
please, choose one of the follwing choices(1-4)
1.Enter process' information
2.Report detailed information about each process
3.Report the average turnaround time, waiting time, and response time
4.Exit the program
1
Enter the number of processes:
4
please enter the priority of process (1-2)2
please enter Arrival Time: 3
CPU Burst: 4
please enter the priority of process (1-2)1
please enter Arrival Time: 0
CPU Burst: 2
please enter the priority of process (1-2)1
please enter Arrival Time: 2
CPU Burst: 1
please enter the priority of process (1-2)2
please enter Arrival Time: 7
CPU Burst: 1
please, choose one of the follwing choices(1-4)
1.Enter process' information
2.Report detailed information about each process
3.Report the average turnaround time, waiting time, and response time
4.Exit the program
2
P2|P2|P3|P1|P1|P1|P1|P4|
please, choose one of the follwing choices(1-4)
1.Enter process' information
2.Report detailed information about each process
3.Report the average turnaround time, waiting time, and response time
4.Exit the program
```

Report1.txt

```
Q1 :
process ID    Process Priority    CPU burst    Arrival time    Start time    Termination time    Turn around time    Waiting time    Response time
P3            1                   1            2               2             3                   1                   0               0
P2            1                   2            0               0             2                   2                   0               0
Q2 :
process ID    Process Priority    CPU burst    Arrival time    Start time    Termination time    Turn around time    Waiting time    Response time
P1            2                   4            3               3             7                   4                   0               0
P4            2                   1            7               7             8                   1                   0               0
```

```
please, choose one of the follwing choices(1-4)
1.Enter process' information
2.Report detailed information about each process
3.Report the average turnaround time, waiting time, and response time
4.Exit the program
▶▶ 3
Average turn around time: 2.0
Average waiting time: 0.0
 Average responce time : 0.0

please, choose one of the follwing choices(1-4)
1.Enter process' information
2.Report detailed information about each process
3.Report the average turnaround time, waiting time, and response time
4.Exit the program
▶▶
```

Report2.txt

```
Average turn around time =2.0
Average waiting time =0.0
Average responce time =0.0
```

- evaluating the performance of the scheduling algorithm and reflecting on the results of the simulation.

- **SJF is better Turnaround time, waiting time and response time for Q2(FCFS) bigger than Q1(SJF).**

- Students may provide suggestions for improving the performance.

- **we suggest using round robin method.**

Instructions

- Run "main Class"
- Follow the program massages
- Enter your choice number from 1 to 4
- **If 1 which is the about "processes information " is chosen**, enter the number of processes and the priority of process and the arrival time for each one and the burst time for each.
- **If 2 which is "Report detailed information about each process" is chosen**, then the program will display the report status including the information about each process and saves it to an output file.
- **If 3 which is " Report the average turnaround time, waiting time, and response time. " Is chosen**, then the program will display the report status including average turnaround time, waiting time, and response time and saves it to an output file.
- **If 4 which is "Exit the program "is chosen**, the program will terminate.

Reflection

The performance is good, but preemptive priority scheduling algorithm will preempt the CPU if the priority of the newly arrived process is higher than the priority of the currently running process there, major problem is no chance for lower priority queues “starvation”.

A solution to the problem of starvation of low-priority processes is aging.