

AIM: Implementation of various scheduling algorithms using C language

inputfile.txt

```
ARRIVAL_TIME   BURST_TIME   PRIORITY |( GIVE ATLEAST ONE SPACE BETWEEN TWO NUMBER )

0  10  5
1  6  4
3  2  2
5  4  0

CONTEXT SWITCHING:

1
```

Output1: (ENTER : 1)

```
ProcessID  ARRIVAL_TIME  BURST_TIME  PRIORITY ( GIVE ATLEAST ONE SPACE BETWEEN TWO NUMBER )
P1 0 10 5
P2 1 6 4
P3 3 2 2
P4 5 4 0
CONTEXT SWITCHING:
1

==*==*==*==*==*==*!!! WELCOME TO YOU !!!==*==*==*==*==*==*

Enter 1: First Come First Served (FCFS)
Enter 2: Shortest Job First (SJF)
Enter 3: Shortest Remaining Time First (SRTF)
Enter 4: Non Preemptive Priority Scheduling(NPPS)
Enter 5: Preemptive Priority Scheduling(PPS)
Enter 6: Round Robin (RR)

ENTER: 1

PROCESS EXECUTION CHART: START: p1 --> p2 --> p3 --> p4 --> (END)
GANT CHART : 0 |p1| 10 |p2| 16 |p3| 18 |p4| 22

Average Waiting Time is: 8.750000

Average Turnaround Time 14.250000

table of process
|PID | | AT | | BT | | PR | | FT | | TAT | | VT |
1    0    10    5    10    10    0
2    1    6    4    16    15    9
3    3    2    2    18    15    13
4    5    4    0    22    17    13
```

Output2:

```

ProcessID  ARRIVAL_TIME  BURST_TIME  PRIORITY  ( GIVE ATLEAST ONE SPACE BETWEEN TWO NUMBER )
P1 0 10 5
P2 1 6 4
P3 3 2 2
P4 5 4 0
CONTEXT SWITCHING:
1

```

```

==**==**==**==**==*** WELCOME TO YOU !!!==**==**==**==**==

```

```

Enter 1: First Come First Served (FCFS)
Enter 2: Shortest Job First (SJF)
Enter 3: Shortest Remaining Time First (SRTF)
Enter 4: Non Preemptive Priority Scheduling(NPPS)
Enter 5: Preemptive Priority Scheduling(PPS)
Enter 6: Round Robin (RR)

```

```

ENTER: 2

```

```

PROCESS EXECUTION CHART: (START) p1 --> p3 --> p4 --> p2 --> (END)
GANT CHART:0 |p1| 10 |p3| 12 |p4| 16 |p2| 22

```

```

Average Waiting Time is: 7.250000
Average Turnaround 12.750000

```

```

table of process

```

PID	AT	BT	PR	FT	TAT	VT
3	3	2	2	12	9	7
4	5	4	0	16	11	7
2	1	6	4	22	21	15
1	0	10	5	10	10	0

Output3:

```

ProcessID  ARRIVAL_TIME  BURST_TIME  PRIORITY  ( GIVE ATLEAST ONE SPACE BETWEEN TWO NUMBER )
P1 0 10 5
P2 1 6 4
P3 3 2 2
P4 5 4 0
CONTEXT SWITCHING:
1

```

```

=====!!! WELCOME TO YOU !!!=====

```

```

Enter 1: First Come First Served (FCFS)
Enter 2: Shortest Job First (SJF)
Enter 3: Shortest Remaining Time First (SRTF)
Enter 4: Non Preemptive Priority Scheduling(NPPS)
Enter 5: Preemptive Priority Scheduling(PPS)
Enter 6: Round Robin (RR)

```

```

ENTER: 3

```

```

Gantt Chart: 0 |p1| 1|p2| 3|p3| 5|p4| 9|p2| 13|p1| 22

```

```

Average Waiting Time is: 4.500000
Average Turnaround 10.000000

```

```

table of process

```

PID	AT	BT	PR	FT	TAT	VT
3	3	2	2	5	2	0
4	5	4	0	9	4	0
2	1	6	4	13	12	6
1	0	10	5	22	22	12

Output4:

```

ProcessID  ARRIVAL_TIME  BURST_TIME  PRIORITY  ( GIVE ATLEAST ONE SPACE BETWEEN TWO NUMBER )
P1 0 10 5
P2 1 6 4
P3 3 2 2
P4 5 4 0
CONTEXT SWITCHING:
1

=====!!! WELCOME TO YOU !!!=====

Enter 1: First Come First Served (FCFS)
Enter 2: Shortest Job First (SJF)
Enter 3: Shortest Remaining Time First (SRTF)
Enter 4: Non Preemptive Priority Scheduling(NPPS)
Enter 5: Preemptive Priority Scheduling(PPS)
Enter 6: Round Robin (RR)

ENTER: 4

PROCESS EXECUTION CHART: (START) p1 --> p4 --> p3 --> p2 --> (END)
GANT CHART:0 |p1| 10 |p4| 14 |p3| 16 |p2| 22

Average Waiting Time is: 7.750000
Average Turnaround 13.250000

table of process
|PID |  | AT |  | BT |  | PR |  | FT |  | TAT |  | VT |
4      5      4      0      14      9      5
3      3      2      2      16      13      11
2      1      6      4      22      21      15
1      0      10     5      10      10      0

```

Output5:

```

ProcessID  ARRIVAL_TIME  BURST_TIME  PRIORITY  ( GIVE ATLEAST ONE SPACE BETWEEN TWO NUMBER )
P1 0 10 5
P2 1 6 4
P3 3 2 2
P4 5 4 0
CONTEXT SWITCHING:
1

=====!!! WELCOME TO YOU !!!=====

Enter 1: First Come First Served (FCFS)
Enter 2: Shortest Job First (SJF)
Enter 3: Shortest Remaining Time First (SRTF)
Enter 4: Non Preemptive Priority Scheduling(NPPS)
Enter 5: Preemptive Priority Scheduling(PPS)
Enter 6: Round Robin (RR)

ENTER: 5

Gantt Chart: 0 |p1| 1|p2| 3|p3| 5|p4| 9|p2| 13|p1| 22

Average Waiting Time is: 4.500000
Average Turnaround 10.000000

table of process
|PID |  | AT |  | BT |  | PR |  | FT |  | TAT |  | VT |
4     5     4     0     9     4     0
3     3     2     2     5     2     0
2     1     6     4     13    12     6
1     0    10     5     22    22    12

```

Output6:

```

ProcessID  ARRIVAL_TIME  BURST_TIME  PRIORITY  ( GIVE ATLEAST ONE SPACE BETWEEN TWO NUMBER )
P1 0 10 5
P2 1 6 4
P3 3 2 2
P4 5 4 0
CONTEXT SWITCHING:
1

==*==*==*==*==*==*==*==*!!! WELCOME TO YOU !!!==*==*==*==*==*==*==*==*

Enter 1: First Come First Served (FCFS)
Enter 2: Shortest Job First (SJF)
Enter 3: Shortest Remaining Time First (SRTF)
Enter 4: Non Preemptive Priority Scheduling(NPPS)
Enter 5: Preemptive Priority Scheduling(PPS)
Enter 6: Round Robin (RR)

ENTER: 6

ENTER THE VALUE OF QUANTUM TIME: 4

Gantt Chart:  P1 P1 P1 P1 P2 P2 P2 P2 P3 P3 P4 P4 P4 P4 P1 P1 P1 P1 P2 P2 P1 P1

Priority      Arraival Time    Burst Time    Finish Time    Turn Around    Waiting time
5             0                10            22             22             12
4             1                6             20             19             13
2             3                2             10             7              5
0             5                4             14             9              5
Average Turn Around Time is: 14.25
Average Waiting Time is: 8.75

```