

OS Assignment 1

Student name	ID	Task
<leader> Sarah alsayari	443200472	Enhancing the final output with Gantt Chart and formatting results
Ghadah soud	443200501	Managing the process queue and implementing Round Robin scheduling
Batool Alkhuraim	443200604	Calculating waiting times, turnaround times, and displaying performance metrics
Almaha Bendahmash	443200666	Writing and setting up process inputs and validating them

Screenshots:

Screen shots (using clear, descriptive captions) showing sample input/output so that RR algorithm is demonstrated with different scenarios (i.e., some processes have less/equal/more CPU burst time than the specified time quantum (2ms))

```
Enter the number of processes: 3
Enter arrival time and burst time for Process 1: 0 1
Enter arrival time and burst time for Process 2: 1 1
Enter arrival time and burst time for Process 3: 2 1
Scheduling Algorithm: Round Robin (Time Quantum = 2)
Time    Process
0-1     P1
1-2     P2
2-3     P3

Performance Metric
Average Turnaround Time: 1.00
Average Waiting Time: 0.00
CPU Utilization: 100.00%
```

Less CPU burst time

```
Enter the number of processes: 3
Enter arrival time and burst time for Process 1: 0 2
Enter arrival time and burst time for Process 2: 1 2
Enter arrival time and burst time for Process 3: 2 2
Scheduling Algorithm: Round Robin (Time Quantum = 2)
Time    Process
0-2     P1
2-4     P2
4-6     P3

Performance Metric
Average Turnaround Time: 3.00
Average Waiting Time: 1.00
CPU Utilization: 100.00%
```

Equal CPU burst time

```
Enter the number of processes: 3
Enter arrival time and burst time for Process 1: 0 5
Enter arrival time and burst time for Process 2: 1 3
Enter arrival time and burst time for Process 3: 2 4
Scheduling Algorithm: Round Robin (Time Quantum = 2)
Time    Process
0-2      P1
2-4      P2
4-6      P3
6-8      P1
8-9      P2
9-11     P3
11-12    P1

Performance Metric
Average Turnaround Time: 9.67
Average Waiting Time: 5.67
CPU Utilization: 100.00%
```

More CPU burst time

These Screen shots illustrate how processes with burst times greater than, equal to, and less than the time quantum (2ms) are handled in a Round Robin Scheduling Algorithm. The output shows the time slices assigned to each process and the overall performance metrics like average turnaround and waiting times, along with CPU utilization

Student peer evaluation form:

Student name	sarah	batool	almaha	ghadah
sarah	-	1	1	1
batool	1	-	1	1
almaha	1	1	-	1
ghadah	1	1	1	-

Gained evaluation weight

Fully satisfied	1
Partially satisfied	0.5
Not satisfied	0