OS Assignment

CPU Scheduling Visualizer

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Code Link: https://github.com/K-a-r-e-e-m/CPU-scheduling-visualizer

Example 1 (FCFS):

1st Case : FCFS (First Come First Served)

Suppose that the processes arrive at time 0, in the order: P1 , P3 , P2 , P4

Draw Gantt Chart and calculate the average waiting time using the given table ??

Process	Burst Time
P1	3
P2	9
P3	5
P4	7

Example 2 (FCFS):

2nd Case : FCFS (First Come First Served)

Draw Gantt Chart and calculate the average waiting time using the given table ??

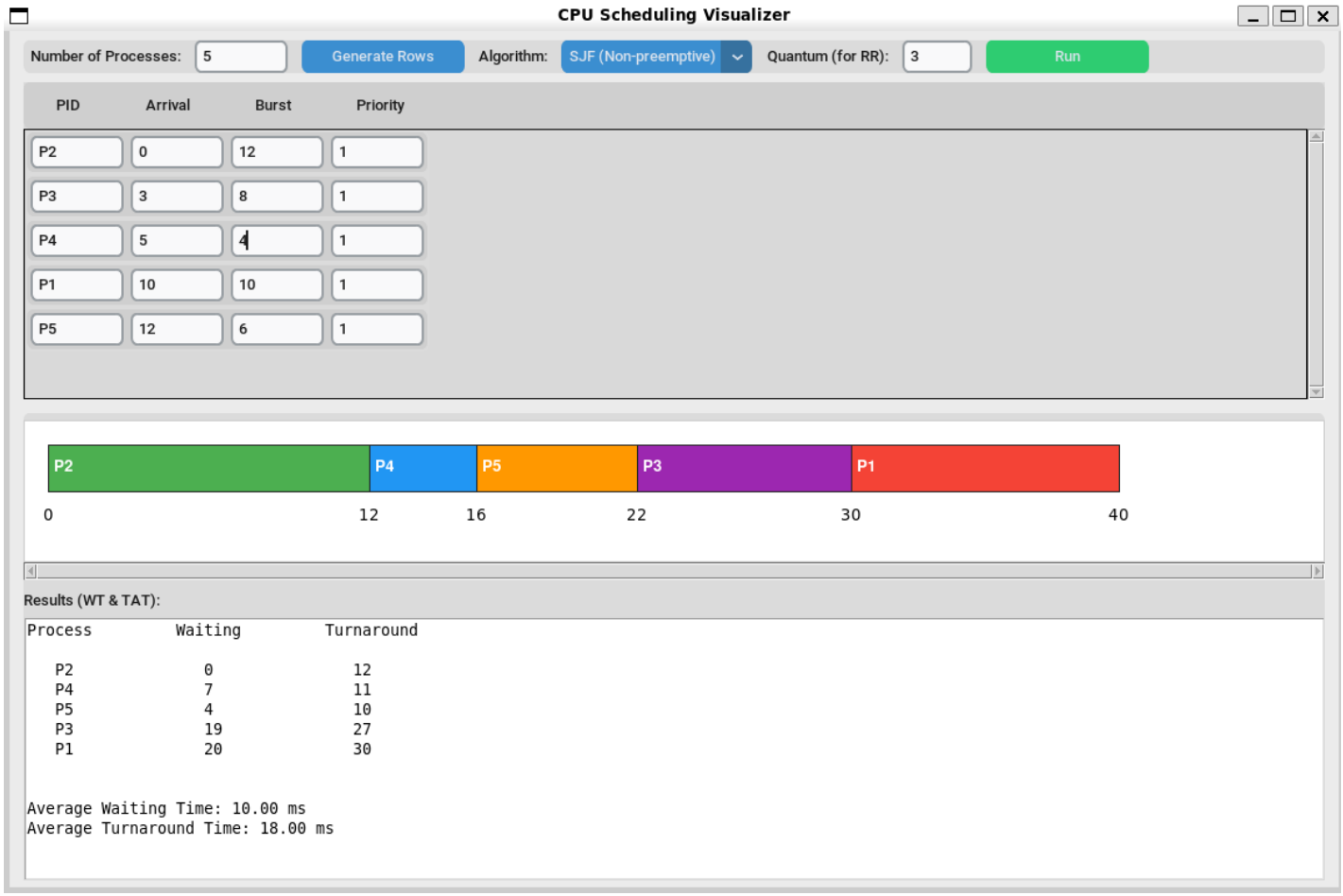
Process	Burst Time	Arrival Time
P1	20	0
P2	12	3
P3	4	2
P4	9	5

Example 3 (SJF non-preemptive):

3rd Case : SJF (short job first) non-Preemptive

Draw Gantt Chart and calculate the average waiting time using the given table ??

Process	Burst Time	Arrival Time
P2	12	0
P3	8	3
P4	4	5
P1	10	10
P5	6	12



Example 4 (SJF preemptive):

4th Case : SJF (short job first) Preemptive

Draw Gantt Chart and calculate the average waiting time using the given table ??

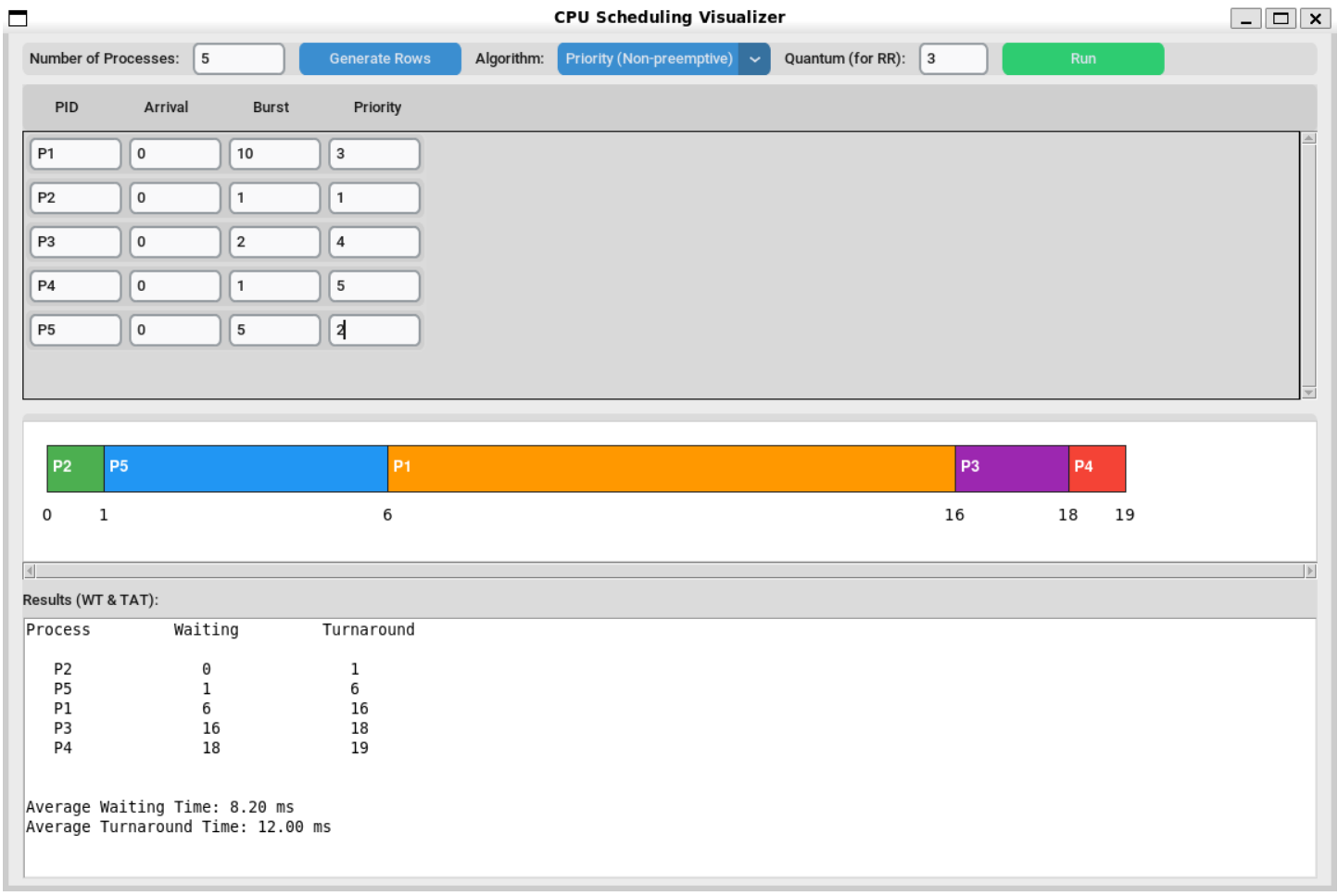
Process	Burst Time	Arrival Time
P2	12	0
P3	8	3
P4	4	5
P1	10	10
P5	6	12

Example 5 (priority non-preemptive):

5th Case : Priority Scheduling non-Preemptive

Draw Gantt Chart and calculate the average waiting time using the given table ??

Process	Burst Time	Priority	Arrival Time
P1	10	3	All Processes Arrived at The Same Time
P2	1	1	
P3	2	4	
P4	1	5	
P5	5	2	

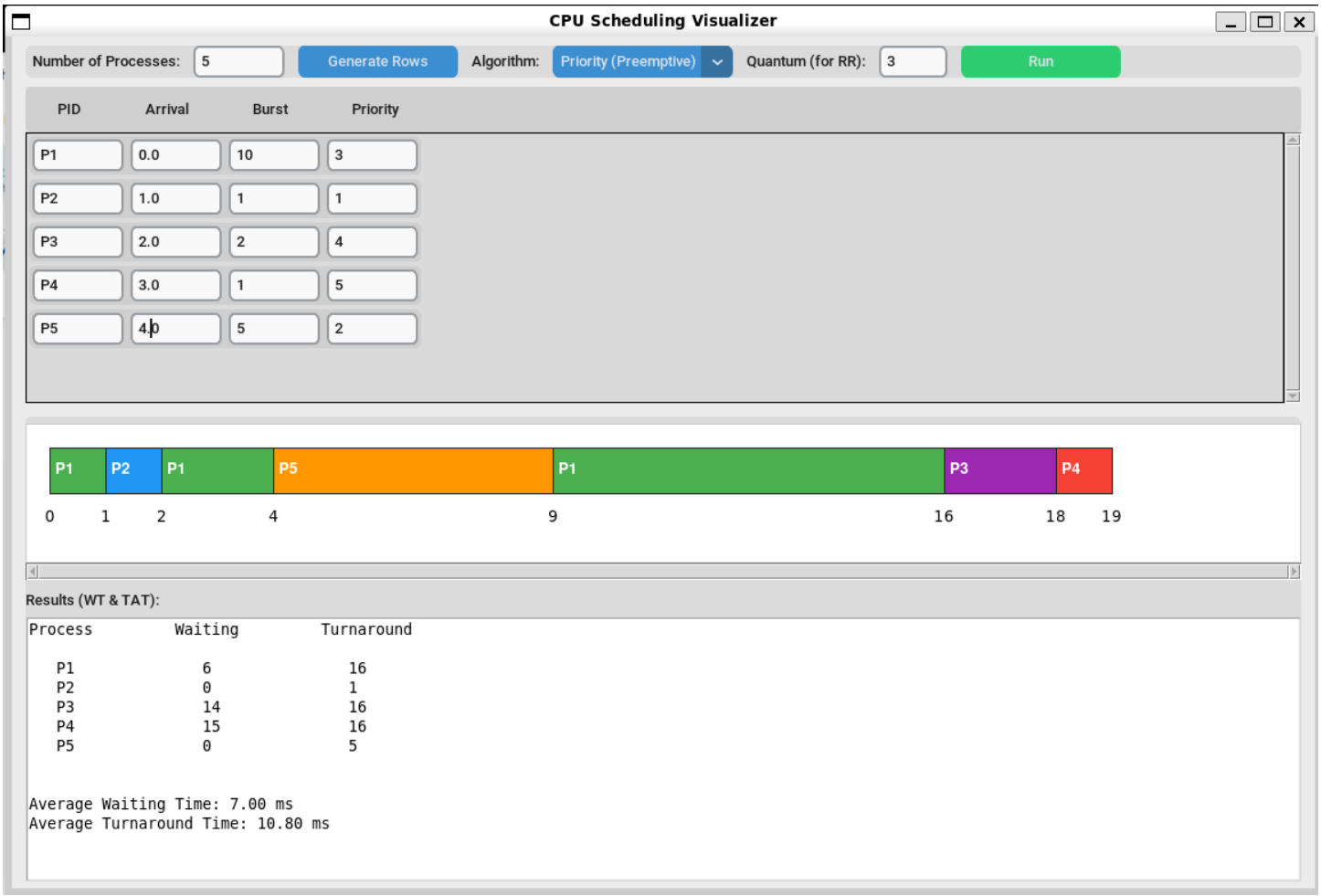


Example 6 (priority preemptive):

6th Case : Priority Scheduling Preemptive

Draw Gantt Chart and calculate the average waiting time using the given table ??

Process	Burst Time	Priority	Arrival Time
P1	10	3	0.0
P2	1	1	1.0
P3	2	4	2.0
P4	1	5	3.0
P5	5	2	4.0



Example 7 (Round Robin):

7th Case : Round Robin (RR)

Draw Gantt Chart and Calculate The Average Waiting Time , where **Quantum = 5 ms**

Process	Burst Time
P1	12
P2	8
P3	4
P4	10
P5	5