CPU Scheduling Visualizer — Report

Algorithm: RR

Metric	Value
CPU Utilization (RUN)	71.70%
CPU Utilization (RUN+CS)	96.23%
Throughput	0.0755 / time unit
Total Time	53.00
Total Context Switches	13
Avg Waiting Time	21.00
Avg Turnaround Time	30.50
Avg Response Time	3.75

Processes

PID	Arrival	Burst
P1	7	11
P2	5	17
P3	5	6
P4	2	4

Per-process Metrics

PID	RT	WT	TT
P1	9.00	28.00	39.00
P2	1.00	31.00	48.00
P3	5.00	16.00	22.00
P4	0.00	9.00	13.00
AVG	**3.75**	**21.00**	**30.50**

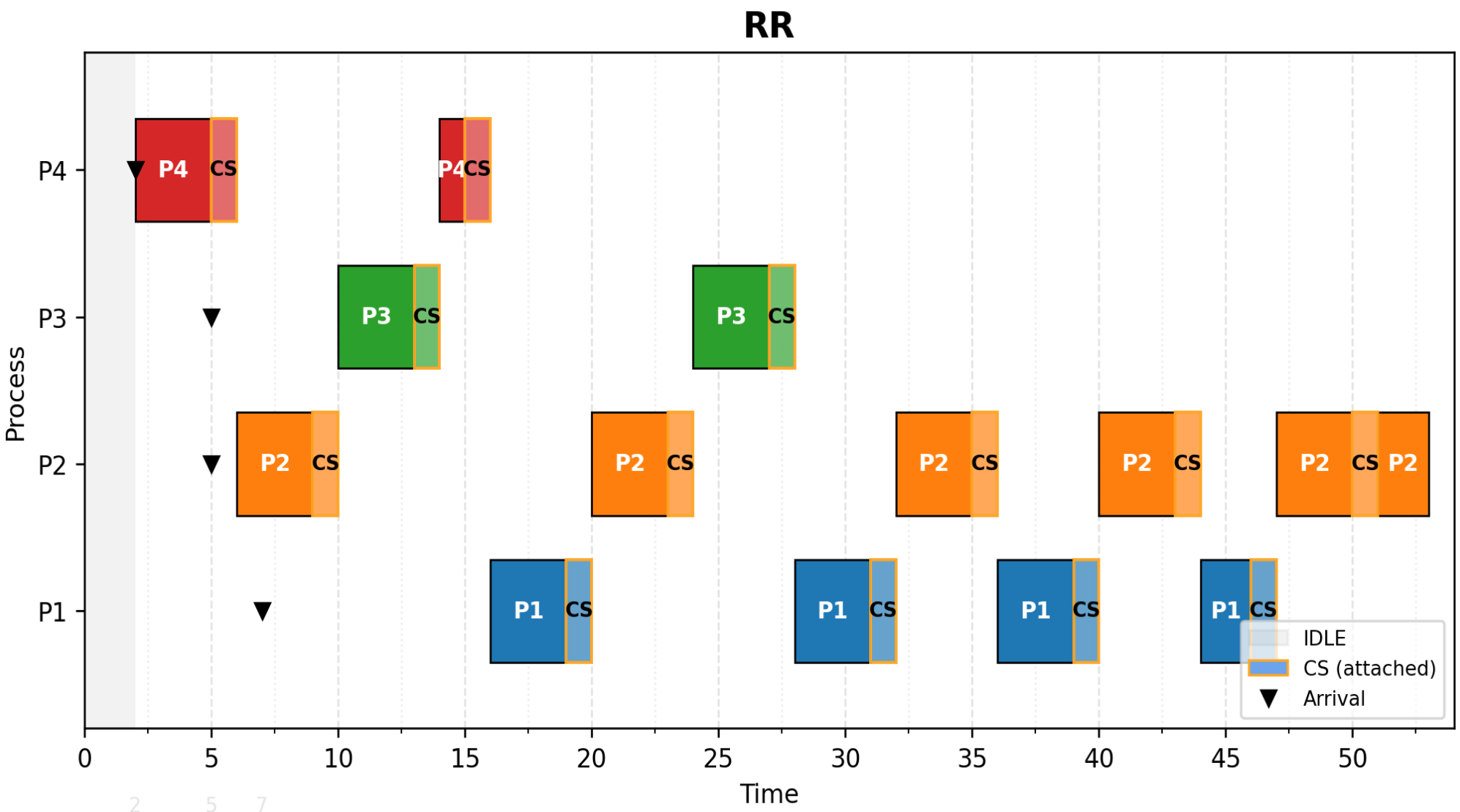
Algorithm Explanation

RR (Round Robin)
Preemptive time-sharing scheduler using a fixed quantum.

How it works: Use a FIFO ready queue. Run head process for at most quantum. If unfinished, re-queue it at the tail. Decisions happen every quantum or completion.

Pros	Cons
• Fair CPU sharing • Good response time for interactive workloads	• Too small quantum → high overhead; too large → behaves like FCFS • Waiting time may increase for long jobs

Gantt Chart


RR
Process
P4
P3
P2
P1
P4 CS
P4CS
P3 CS
P2 CS
P1 CS
P2 CS P2
IDLE
CS (attached)
Arrival
0
5
10
15
20
25
30
35
40
45
50
Time
2
5
7