



Faculty of Engineering  
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Computer and Systems Department  
Operating Systems  
Scheduler Report

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# USER MANUAL FOR USING THE SOFTWARE

Please note that the executable file is “OS\_Scheduler.txt” ,  
you will need to change it to “OS\_Scheduler.jar” to run the software.

The image shows a software window for process scheduling simulation. It has a menu bar with 'File' and 'Edit'. Below the menu bar is a section titled 'Add Processes'. Inside this section, there are four highlighted areas: a red box around the 'Processes' dropdown menu showing '0'; a blue box around the 'Algorithm' dropdown menu showing 'FCFS' with other options 'Round Roben', 'SJF', and 'Priority'; a red box around the 'PREEMPTION' checkbox which is unchecked and labeled 'pre-emptive'; and a green box around the 'TIME SLICE' input field which contains the value '1'. At the bottom of the 'Add Processes' section is an 'OK' button.

File Edit

Add Processes

Processes: 0

Algorithm: FCFS  
Round Roben  
SJF  
Priority

PREEMPTION ☐ pre-emptive

TIME SLICE 1

OK

**First**, Select the number of process from this dropdown menu

**Second**, Select the Scheduling Algorithm that you are going to work with

**Then**, Select the type of Preemption (Preemptive or not)

**Finally**, Specify the Time Slice/Quantum

File

Edit

Add Processes

Processes:

4

Algorithm:

FCFS

Round Roben

SJF

Priority

PREEMPTION

☐

pre-emptive

TIME SLICE

1

OK

Console log

Process Table

Gannt Chart

Process/Processes Details

	ArrivalTime	PurstTime	Priority
Process1:	0	5	1
Process2:	1	3	1
Process3:	2	8	1
Process4:	3	6	1
Process5:			
Process6:			
Process7:			
Process8:			
Process9:			
Process10:			

Ok

Cancel

● Specify the Processes Arrival Time, Burst Time and Priority ... Then Click OK.



File Edit

Add Processes

Processes: 4 ▼

Algorithm: FCFS  
Round Roben  
SJF  
Priority

PREEMPTION ☐ pre-emptive

TIME SLICE 1

OK

Console log Process Table Gantt Chart

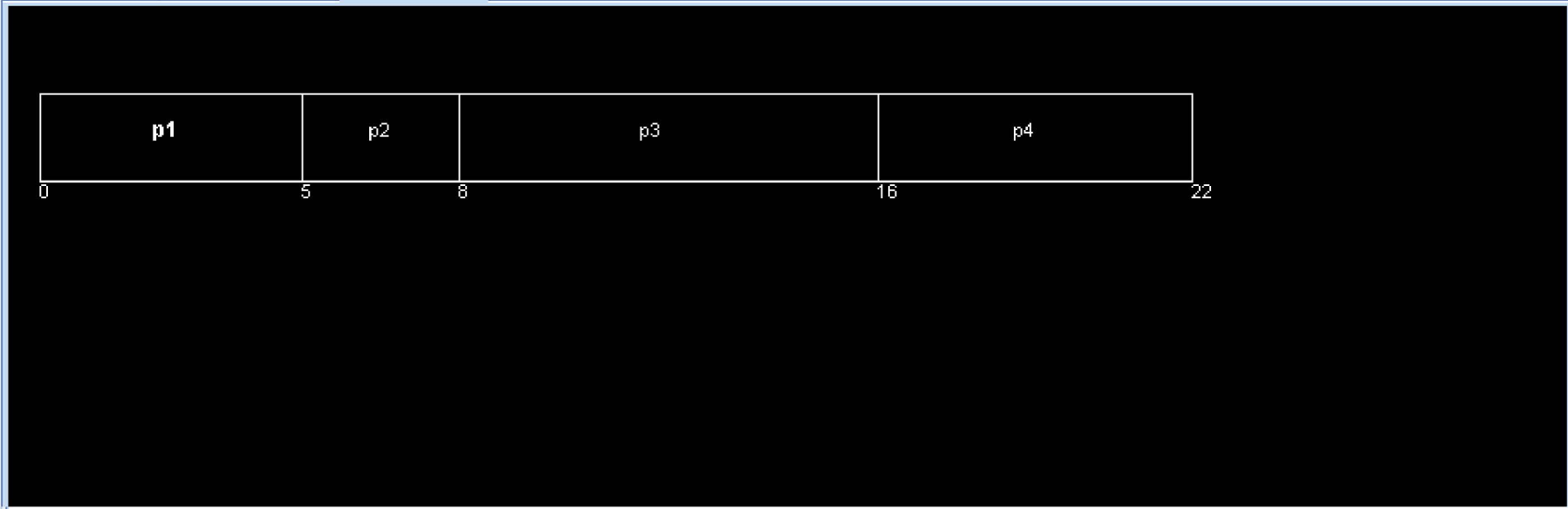
process: 1 Arrival time: 0 Departure time: 5 WaitingTime: 0  
process: 2 Arrival time: 1 Departure time: 8 WaitingTime: 4  
process: 3 Arrival time: 2 Departure time: 16 WaitingTime: 6  
process: 4 Arrival time: 3 Departure time: 22 WaitingTime: 13

The Results will be shown  
in the following tabs.

Console log Process Table Gantt Chart

Process ID	Arrival time	Purst time	Departure time	Waiting time	Priority
0	0	5	5	0	1
1	1	3	8	4	1
2	2	8	16	6	1
3	3	6	22	13	1

Console log Process Table Gantt Chart



# SNAPSHOTS FOR THE RUNNING SCENARIOS



File Edit

Add Processes

Processes: 4 ▾

Algorithm:  
FCFS  
Round Roben  
SJF  
Priority

PREEMPTION ☒ pre-emptive

TIME SLICE 1

OK

Console log Process Table Gantt Chart

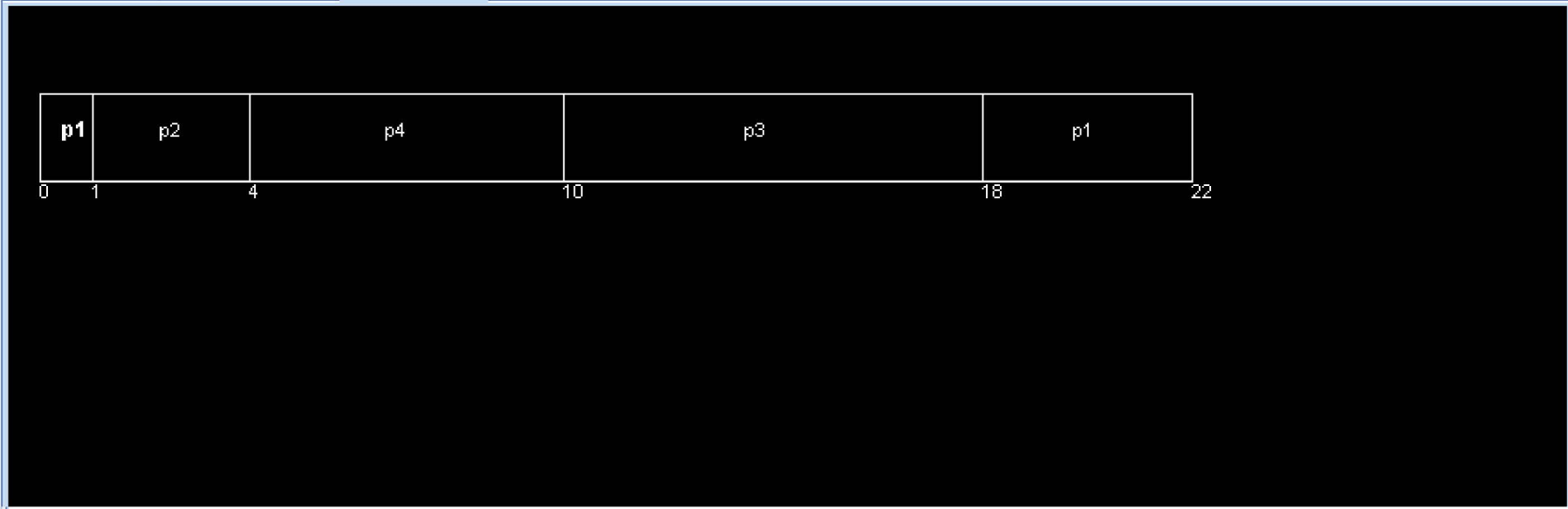
process: 1      Arrival time: 0   Departure time: 22   WaitingTime: 17  
process: 2      Arrival time: 1   Departure time: 4   WaitingTime: 0  
process: 3      Arrival time: 2   Departure time: 18   WaitingTime: 8  
process: 4      Arrival time: 3   Departure time: 10   WaitingTime: 1

Priority

Console log Process Table Gantt Chart

Process ID	Arrival time	Purst time	Departure time	Waiting time	Priority
0	0	5	22	17	3
1	1	3	4	0	1
2	2	8	18	8	2
3	3	6	10	1	1

Console log Process Table Gantt Chart





File Edit

Add Processes

Processes: 4 ▾

Algorithm: FCFS  
Round Roben  
SJF  
Priority

PREEMPTION ☒ pre-emptive

TIME SLICE 1

OK

Console log Process Table Gantt Chart

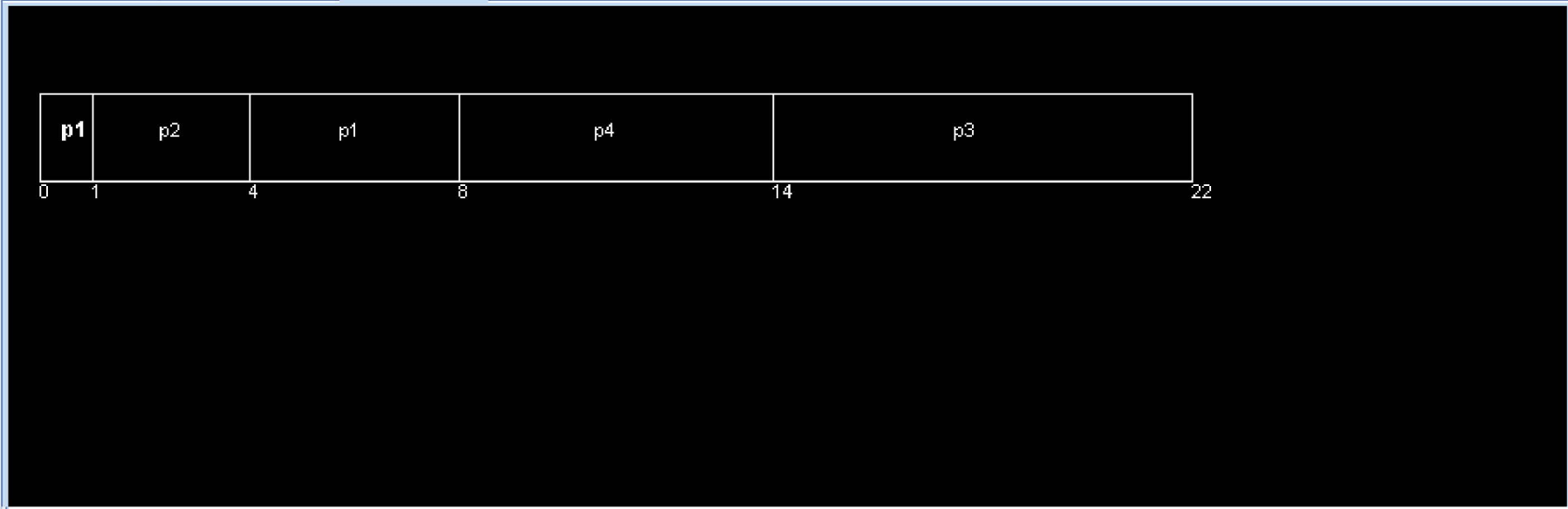
process: 1 Arrival time: 0 Departure time: 8 WaitingTime: 3  
process: 2 Arrival time: 1 Departure time: 4 WaitingTime: 0  
process: 3 Arrival time: 2 Departure time: 22 WaitingTime: 12  
process: 4 Arrival time: 3 Departure time: 14 WaitingTime: 5

**SJF** pre-emptive

Console log Process Table Gantt Chart

Process ID	Arrival time	Purst time	Departure time	Waiting time	Priority
0	0	5	8	3	1
1	1	3	4	0	1
2	2	8	22	12	1
3	3	6	14	5	1

Console log Process Table Gantt Chart







File Edit

Add Processes

Processes: 4 ▾

Algorithm: FCFS  
Round Roben  
SJF  
Priority

PREEMPTION ☐ pre-emptive

TIME SLICE 1

OK

Console log Process Table Gantt Chart

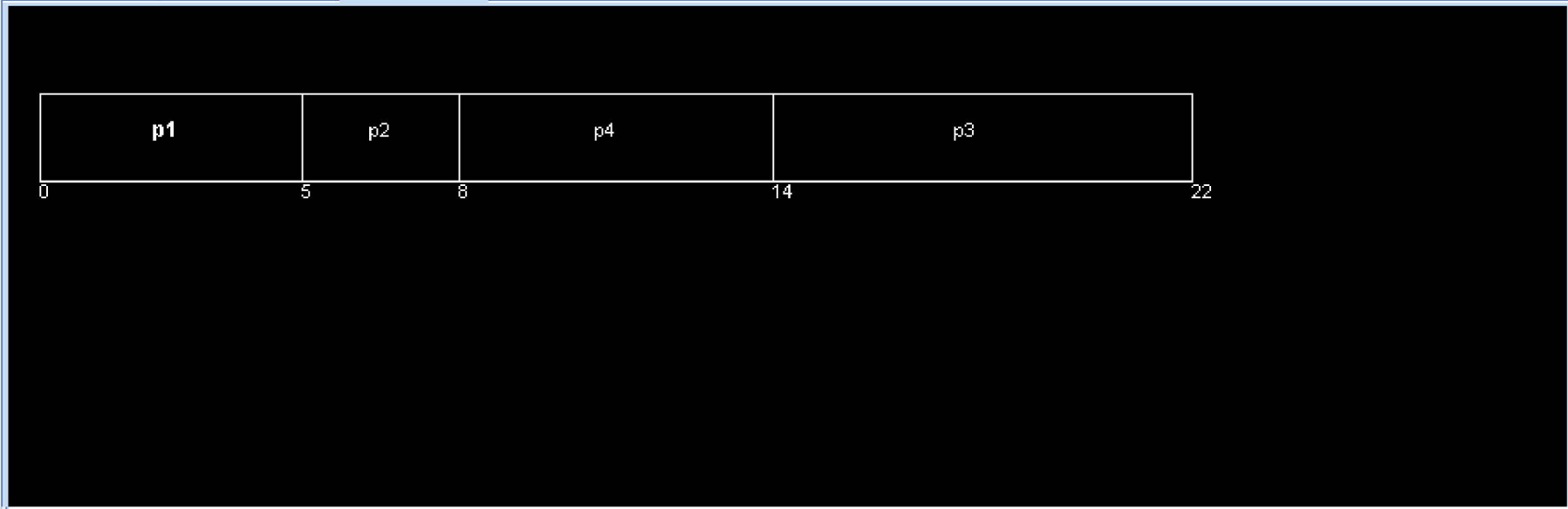
process: 1 Arrival time: 0 Departure time: 5 WaitingTime: 0  
process: 2 Arrival time: 1 Departure time: 8 WaitingTime: 4  
process: 3 Arrival time: 2 Departure time: 22 WaitingTime: 12  
process: 4 Arrival time: 3 Departure time: 14 WaitingTime: 5

**SJF** non pre-emptive

Console log Process Table Gantt Chart

Process ID	Arrival time	Purst time	Departure time	Waiting time	Priority
0	0	5	5	0	1
1	1	3	8	4	1
2	2	8	22	12	1
3	3	6	14	5	1

Console log Process Table Gantt Chart





File Edit

Add Processes

Processes: 4 ▾

Algorithm: FCFS  
Round Robin  
SJF  
Priority

PREEMPTION ☐ pre-emptive

TIME SLICE 3

OK

Console log Process Table Gantt Chart

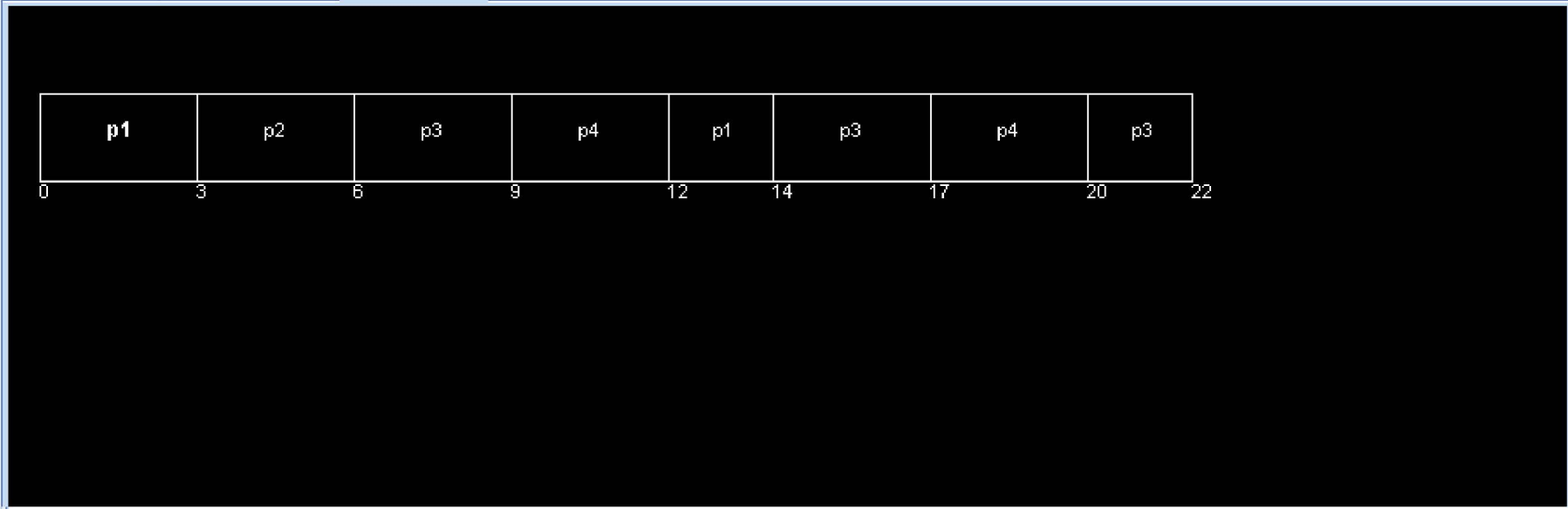
process: 1    Arrival time: 0    Departure time: 14    WaitingTime: 9  
process: 2    Arrival time: 1    Departure time: 6    WaitingTime: 2  
process: 3    Arrival time: 2    Departure time: 22    WaitingTime: 12  
process: 4    Arrival time: 3    Departure time: 20    WaitingTime: 11

**RR** quantum = 3

Console log Process Table Gantt Chart

Process ID	Arrival time	Purst time	Departure time	Waiting time	Priority
0	0	5	14	9	1
1	1	3	6	2	1
2	2	8	22	12	1
3	3	6	20	11	1

Console log Process Table Gantt Chart





File Edit

Add Processes

Processes: 4 ▼

Algorithm: FCFS  
Round Roben  
SJF  
Priority

PREEMPTION ☐ pre-emptive

TIME SLICE 1

OK

Console log Process Table Gantt Chart

process: 1 Arrival time: 0 Departure time: 5 WaitingTime: 0  
process: 2 Arrival time: 1 Departure time: 8 WaitingTime: 4  
process: 3 Arrival time: 2 Departure time: 16 WaitingTime: 6  
process: 4 Arrival time: 3 Departure time: 22 WaitingTime: 13

FCFS

Console log Process Table Gantt Chart

Process ID	Arrival time	Purst time	Departure time	Waiting time	Priority
0	0	5	5	0	1
1	1	3	8	4	1
2	2	8	16	6	1
3	3	6	22	13	1

Console log Process Table Gantt Chart

