Faculty of Engineering
Ain Shams University

Computer and Systems Department

Operating Systems

Scheduler Report

Fady Khalaf Fahmy (Sec:2)

Maged Magdy Shokry (Sec:2)

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.

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

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

schedular

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

The Results will be shown in the following tabs.

Console log | **Process Table** | Gannt 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 | **Gannt Chart**

p1	p2	p3	p4
0	5 8	16	22

SNAPSHOTS FOR
THE RUNNING SCENARIOS

schedular

File   Edit

Add Processes

Processes: 4 ▼

Algorithm:
- FCFS
- Round Roben
- SJF
- **Priority**

PREEMPTION ☑ pre-emptive

TIME SLICE 1

[OK]

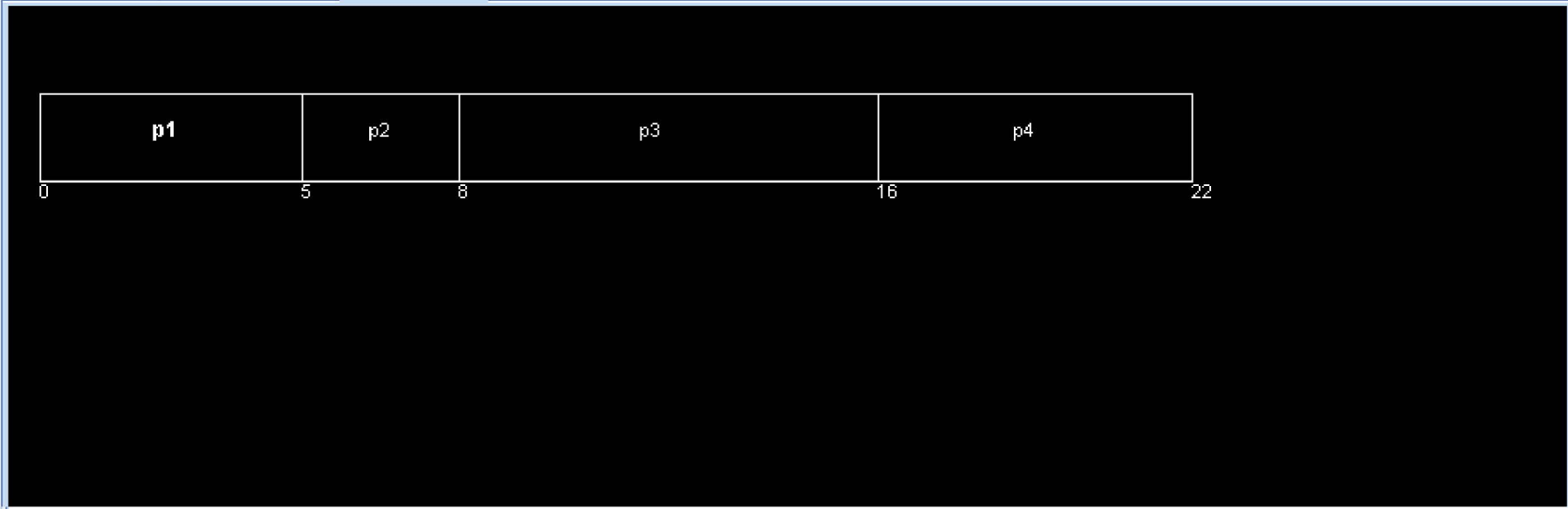| Console log | Process Table | Gannt Chart |

```
process: 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 | Gannt 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 | Gannt Chart |

p1	p2	p4	p3	p1
0	1	4	10	18	22

schedular

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: 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** | Gannt 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 | **Gannt Chart**

p1	p2	p1	p4	p3

0   1   4   8   14   22

schedular

File   Edit

Add Processes

Processes: 4 ▼

Algorithm:
- FCFS
- Round Roben
- SJF
- Priority

PREEMPTION ☐ pre-emptive

TIME SLICE 1

[OK]

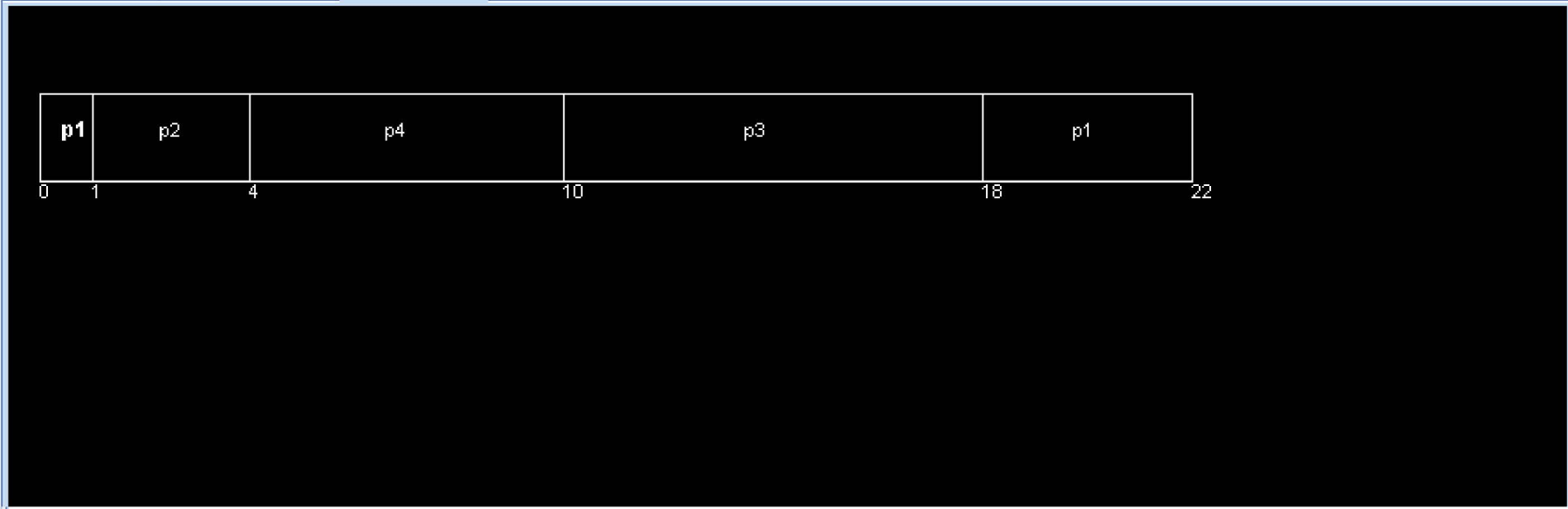**Console log** | Process Table | Gannt Chart
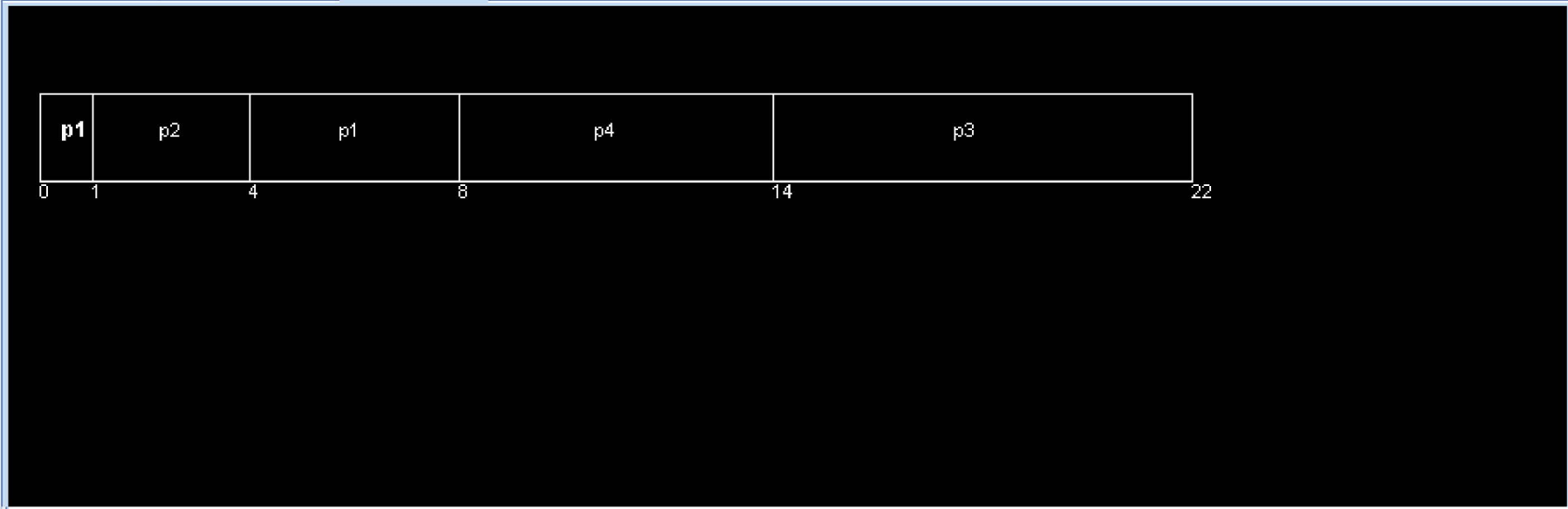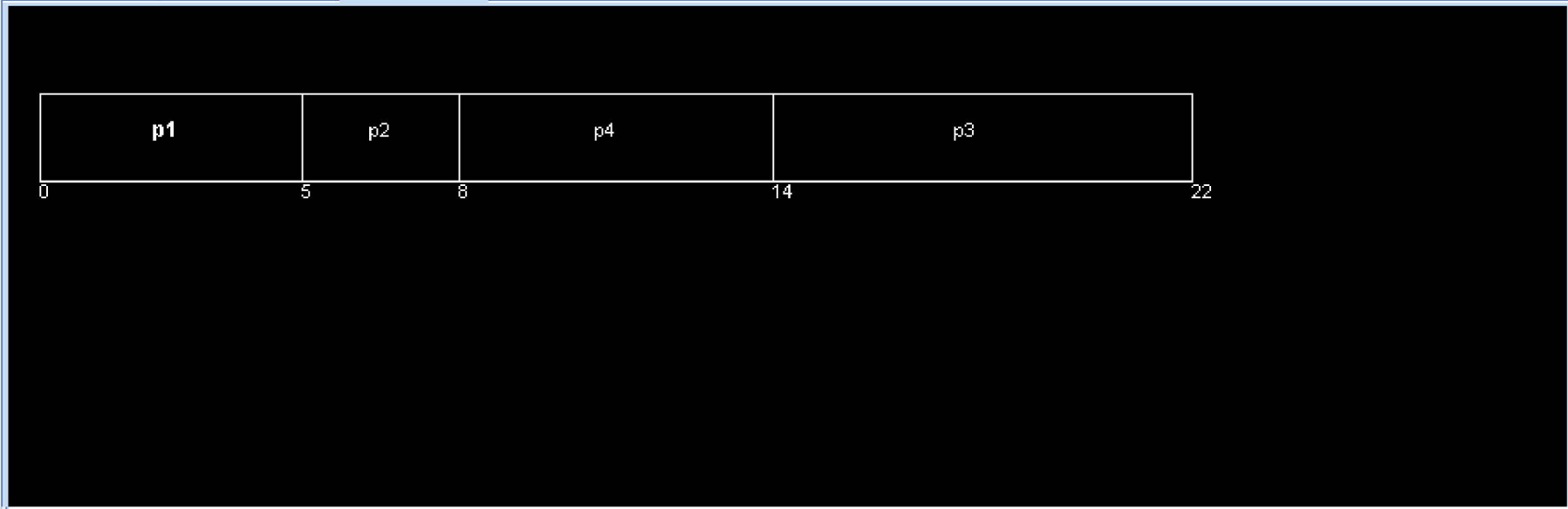
process: 1   Arrival time: 0 Departure time: 5   WaitingTime: 0
process: 2   Arrival time: 1 Departure time: 8   WaitingTime: 4
process: 3   Arrival time: 2 Departure time: 22   WaitingTime: 12
process: 4   Arrival time: 3 Departure time: 14   WaitingTime: 5

SJF non pre-emptive

Console log | **Process Table** | Gannt 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 | **Gannt Chart**

p1	p2	p4	p3

0   5   8   14   22

schedular

Add Processes

Processes: 4 ▾

Algorithm:
- FCFS
- **Round Roben**
- SJF
- Priority

PREEMPTION ☐ pre-emptive

TIME SLICE 3

[OK]

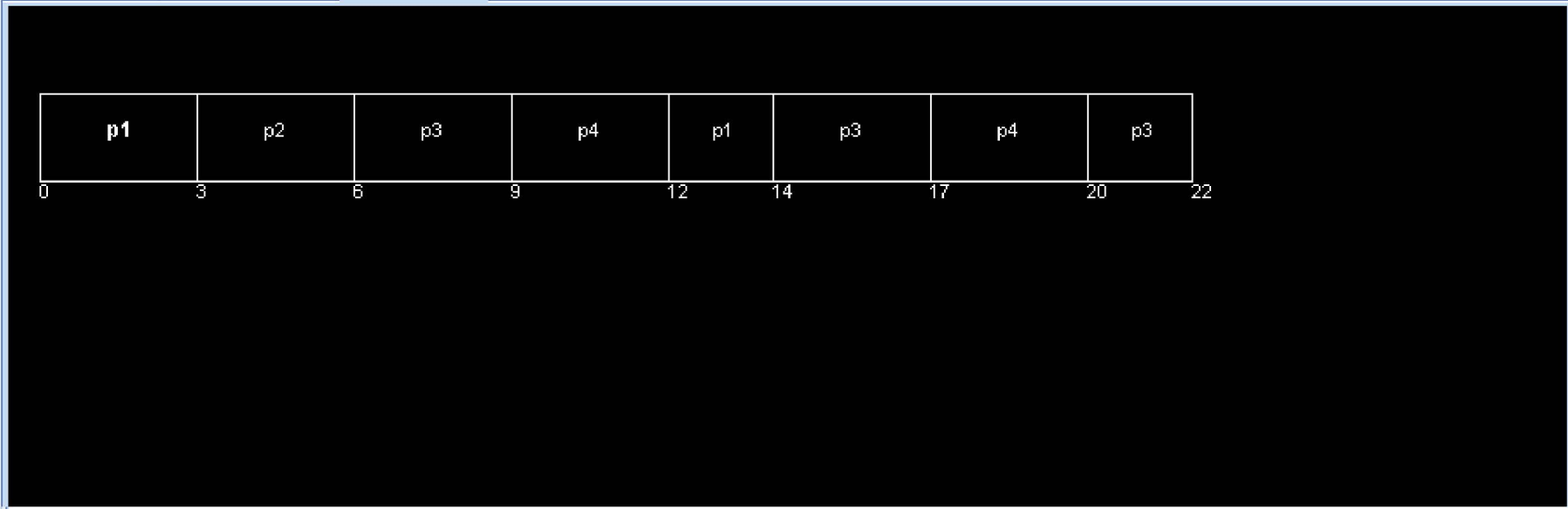### Console log | Process Table | Gannt Chart

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

RR Quantum = 3

Console log | Process Table | Gannt 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 | Gannt Chart

p1	p2	p3	p4	p1	p3	p4	p3

0   3   6   9   12   14   17   20   22

schedular

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: 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** | Gannt 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 | **Gannt Chart**

p1	p2	p3	p4

0   5   8   16   22