



Operating System – CSE333s

Process Scheduler Project

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GitHub Repo

all codes, screenshots, installer, contribution of each member

[abdelrahman99999/OS Process Scheduler \(github.com\)](https://github.com/abdelrahman99999/OS_Process_Scheduler)

Project Installer

https://drive.google.com/drive/folders/1Gf_QtiHxtrTjzbRCGGSe76L-zMmp_CYL?usp=sharing

OS Scheduler

Scheduling Algorithm

2. SJF

Number of Process

5

Type

☒ Non Preemptive ☐ Preemptive

	process id	burst time	arrival time
1	1	6	2
2	2	2	5
3	3	8	1
4	4	3	0
5	5	4	4

Simulate

	p4	p1	p2	p5	p3
time	3	6	2	4	8

Processes Time Line

	process Id	start time	end time
1	4	0	3
2	1	3	9
3	2	9	11
4	5	11	15
5	3	15	23

Average Waiting Time: 5.2

OS Scheduler

Scheduling Algorithm

2. SJF

Number of Process

4

Type

☐ Non Preemptive ☒ Preemptive

	process id	burst time	arrival time
1	1	8	0
2	2	4	1
3	3	9	2
4	4	5	3

Simulate

	p1	p2	p4	p1	p3
time	1	4	5	7	9

Processes Time Line

	process Id	start time	end time
1	1	0	1
2	2	1	5
3	4	5	10
4	1	10	17
5	3	17	26

Average Waiting Time: 6.5

OS Scheduler

Scheduling Algorithm

1. FCFS

Number of Process

4

	process id	burst time	arrival time
1	0	5	0
2	1	3	1
3	2	8	2
4	3	6	3

Simulate

	p0	p1	p2	p3
time	5	3	8	6

Processes Time Line

	process Id	start time	end time
1	0	0	5
2	1	5	8
3	2	8	16
4	3	16	22

Average Waiting Time: 5.75

OS Scheduler

Scheduling Algorithm

4. Round Robin

Number of Process

5

Quantum

2

	process id	burst time	arrival time
1	1	5	0
2	2	3	1
3	3	1	2
4	4	2	3
5	5	3	4

Simulate

	p1	p2	p3	p1	p4	p5	p2	p1	p5
time	2	2	1	2	2	2	1	1	1

Processes Time Line

	process Id	start time	end time
1	1	0	2
2	2	2	4
3	3	4	5
4	1	5	7
5	4	7	9
6	5	9	11

Average Waiting Time: 5.8

OS Scheduler

Scheduling Algorithm

3. Priority

Number of Process

6

Type

☒ Non Preemptive ☐ Preemptive

	process id	burst time	arrival time	priority
1	1	4	0	5
2	2	5	1	4
3	3	1	2	1
4	4	2	3	6
5	5	3	4	7
6	6	6	5	2

Simulate

	p1	p3	p6	p2	p4	p5
time	4	1	6	5	2	3

Processes Time Line

	process Id	start time	end time
1	1	0	4
2	3	4	5
3	6	5	11
4	2	11	16
5	4	16	18
6	5	18	21

Average Waiting Time: 6.5

OS Scheduler

Scheduling Algorithm

3. Priority

Number of Process

5

Type

☐ Non Preemptive ☒ Preemptive

	process id	burst time	arrival time	priority
1	1	4	0	5
2	2	3	1	4
3	3	1	2	3
4	4	5	3	2
5	5	2	4	2

Simulate

	p1	p2	p3	p4	p5	p2	p1
time	1	1	1	5	2	2	3

Processes Time Line

	process Id	start time	end time
1	1	0	1
2	2	1	2
3	3	2	3
4	4	3	8
5	5	8	10
6	2	10	12

Average Waiting Time: 4.6