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Operating Systems

The Scheduler Assignment Manual

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2	1	الفصل

FCFS Scheduling (First come First served)

Steps to use

- Choose FCFS Tap
- Enter number of process
- Enter burst time and arrival time of each process and click insert after each one.
- The default value of arrival time is zero
- **Note: If you change number of process and quantum time, then click OK, you can restart again the process.**

CPU_Scheduler

FCFS SJF Priority RoundRobin

Enter number of processes: ok

enter burst time and arrival time of the process and click insert button:

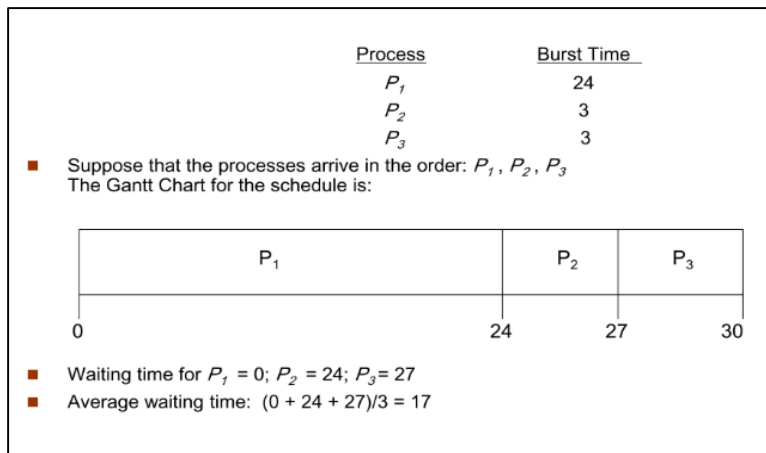
enter burst time:

enter arrival time: 0

click to insert new process

NOTE: first process arrival time must be 0 and other processes must be greater than 0. Or all arrival times equal 0.

average waiting time=



CPU_Scheduler

FCFS SJF Priority RoundRobin

Enter number of processes: 3 ok

enter burst time and arrival time of the process and click insert button:

enter burst time: 3

enter arrival time: 0

click to insert new process

NOTE: first process arrival time must be 0 and other processes must be greater than 0. Or all arrival times equal 0.

average waiting time= 17

P1 P2 P3

0 24 27 30

< >

SJF Scheduling (Shortest Job First) Preemptive and non-preemptive

Steps to use

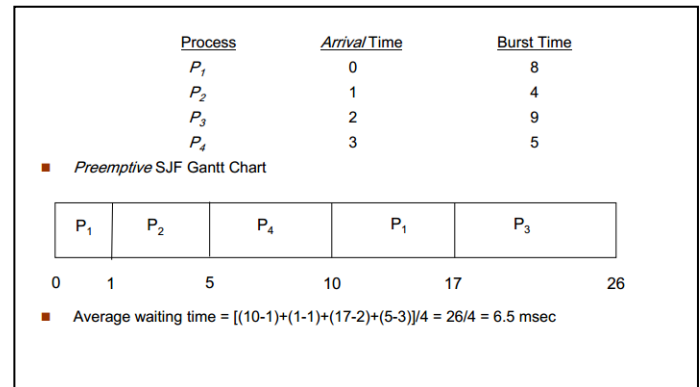
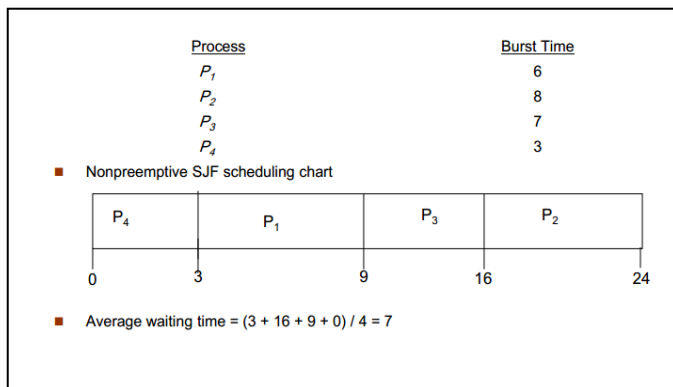
Incase non-preemptive

- Choose SJF Tap
- Enter number of process
- Enter burst time of each process and click insert after each one.

Incase Preemptive

The same steps as non-preemptive but check the Preemptive check box then enter arrival time of each process then click insert after each one.

Note: If you change number of process you can restart again the process.



Priority Scheduling - Preemptive and non-preemptive

Steps to use

Incase non-preemptive

- Choose SJF Tap
- Enter number of process
- Enter burst time of each process
- Enter Priority of each process and click insert after each one.

Incase Preemptive

The same steps as non-preemptive but check the Preemptive check box then enter arrival time of each process then click insert after each one.

Note: If you change number of process you can restart again the process.

CPU_Scheduler

FCFS SJF **Priority** RoundRobin

Enter number Of process: 0

Enter burst time of the process: 0

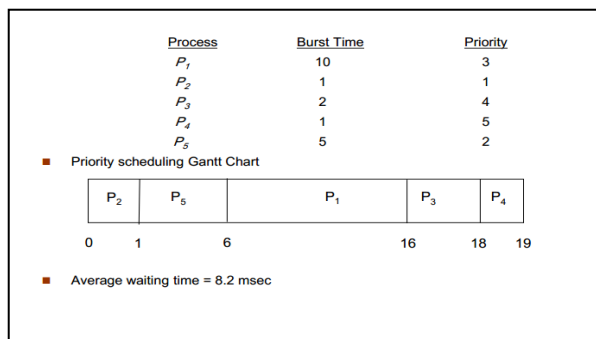
Enter Priority and click insert: 0

☒ Preemptive

Enter process arrival time then click insert: 0

Insert

Avg Waiting time =



process	arrival	burst	priority
P1	0	5	2
P2	3	4	1
P3	4	7	3
P4	6	8	2

CPU_Scheduler

FCFS SJF **Priority** RoundRobin

Enter number Of process: 5

Enter burst time of the process: 5

Enter Priority and click insert: 2

☐ Preemptive

Avg Waiting time = 8.2 msec

P2 P5 P1 P3 P4

0 1 6 16 18 19

CPU_Scheduler

FCFS SJF **Priority** RoundRobin

Enter number Of process: 4

Enter burst time of the process: 8

Enter Priority and click insert: 2

☒ Preemptive

Enter process arrival time then click insert: 6

Insert

Avg Waiting time = 5 msec

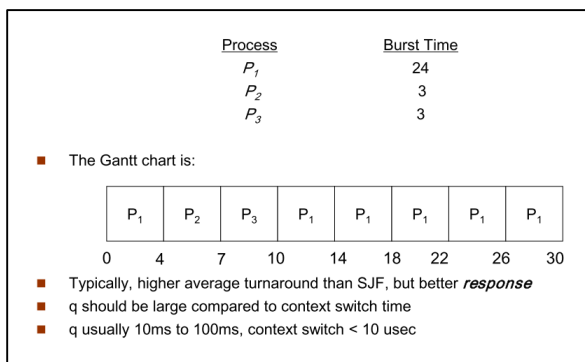
P1 P2 P1 P4 P3

0 3 7 9 17 24

RR Scheduling (Round Robin)

Steps to use

- Choose Round Robin Tap
- Enter number of process
- Enter Quantum time
- Enter burst time and arrival time of each process
- The default value of arrival time is zero
- **Note: If you change number of process and quantum time, then click OK, you can restart again the process.**



CPU_Scheduler

FCFS SJF Priority RoundRobin

Enter number of processes: 3

Enter Quantum time: 4

enter burst time and arrival time of the process and click insert button:

enter burst time: 3

enter arrival time: 0

NOTE: first process arrival time must be 0 and other processes must be greater than 0. Or all arrival times equal 0.

average waiting time= 5.666667

p1	p2	p3	p1	p1	p1	p1	p1
0	4	7	10	14	18	22	26