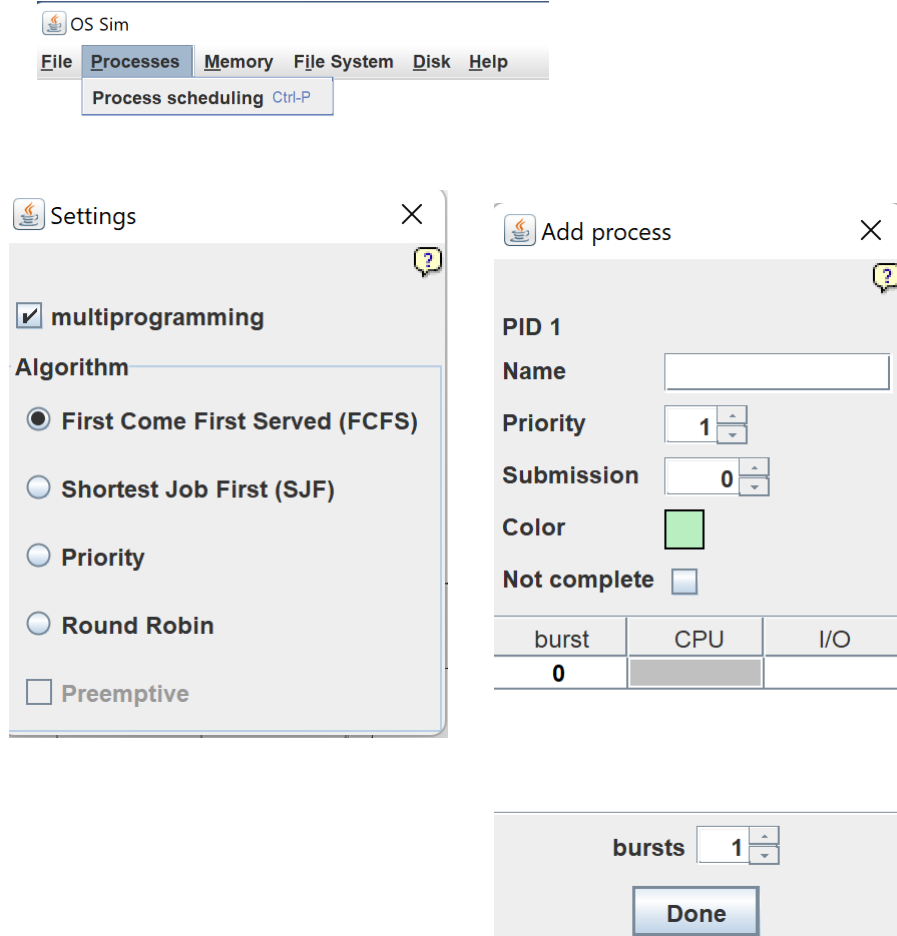


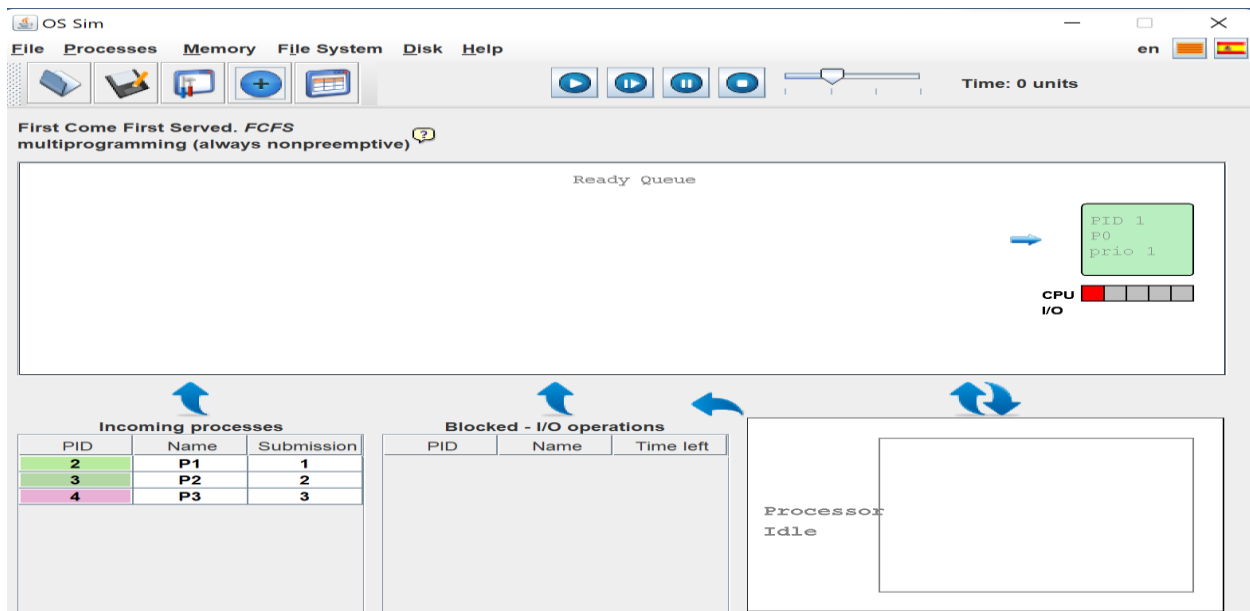
Nama : Resya Lusiara	Nilai
Nim : L200210273	
Nama dosen : Heru Setiya Nugraha, ST, M.kom	Tanda tangan
Kelas : Praktikum Sistem Operasi	

MODUL 11

Kegiatan 1. Penjadwalan Proses

1.1 First-Come, First-Served (FCFS)





Process Scheduling Information

Efficiency (%)	1.00
Throughput (processes/time unit)	0.18
Avg. Turnaround Time (time)	11.25
Avg. Waiting Time (time)	5.75
Avg. Response Time (time)	5.75

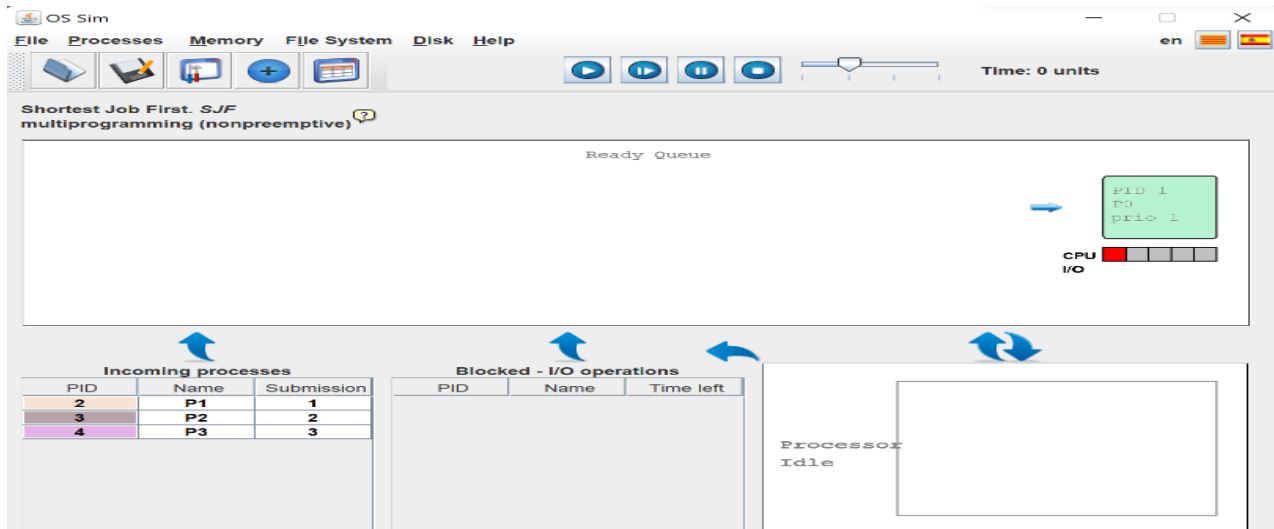
PID	Name	Priority	Submission	Periodic	CPU	Response	Waiting	Turnaround	% CPU	% IO
1	P0	1	0	-	5	0	0	5	1.0	0.0
2	P1	1	1	-	3	4	4	7	0.428571...	0.0
3	P2	1	2	-	8	6	6	14	0.571428...	0.0
4	P3	1	3	-	6	13	13	19	0.315789...	0.0

Process	Wait time : Service Time – Arrival Time
P0	0
P1	4
P2	6
P3	13
Av wait time	5.75

Kesimpulan :

FCFS = antrian dengan prinsip first in first out, sesuai dengan waktu kedatangannya. Proses yang tiba terlebih dahulu yang akan dieksekusi.

1.2 Shortest Job First (SJF)



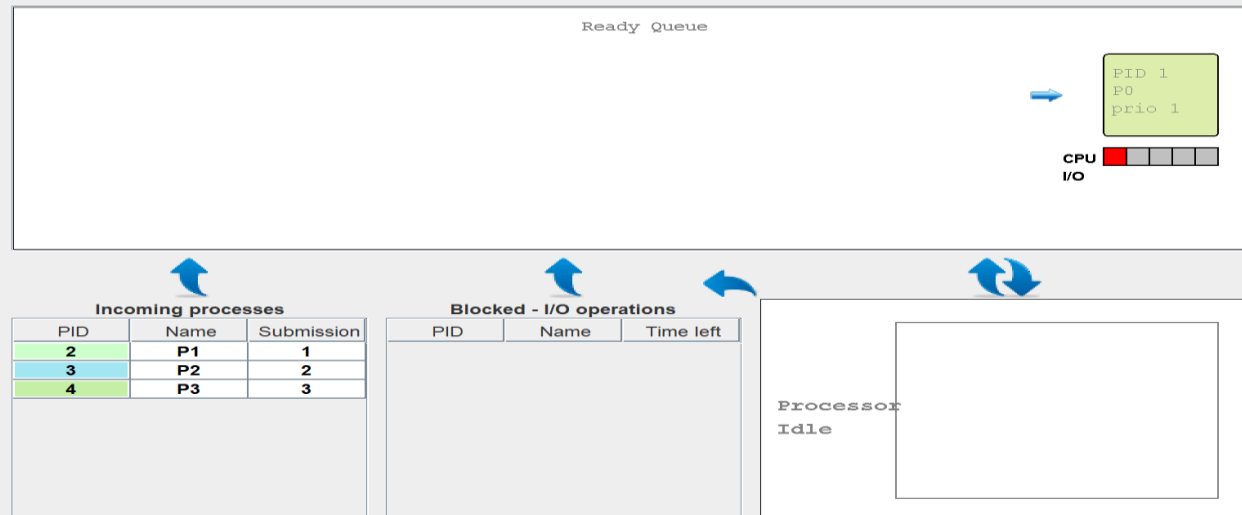
Process Scheduling Information

Efficiency (%)	0.76
Throughput (processes/time unit)	0.14
Avg. Turnaround Time (time)	10.75
Avg. Waiting Time (time)	5.25
Avg. Response Time (time)	5.25

PID	Name	Priority	Submission	Periodic	CPU	Response	Waiting	Turnaround	% CPU	% IO
1	P0	1	0	-	5	0	0	5	1.0	0.0
2	P1	1	1	-	3	4	4	7	0.428571...	0.0
4	P3	1	3	-	6	5	5	11	0.545454...	0.0
3	P2	1	2	-	8	12	12	20	0.4	0.0

Process	Wait time : Service Time – Arrival Time
P0	0
P1	4
P3	5
P2	12
Av wait time	5.25

Shortest Job First. *SJF*
multiprogramming (preemptive) ?



Process Scheduling Information

Efficiency (%) 0.92

Throughput (processes/time unit) 0.17

Avg. Turnaround Time (time) 10.50

Avg. Waiting Time (time) 5.00

Avg. Response Time (time) 4.25

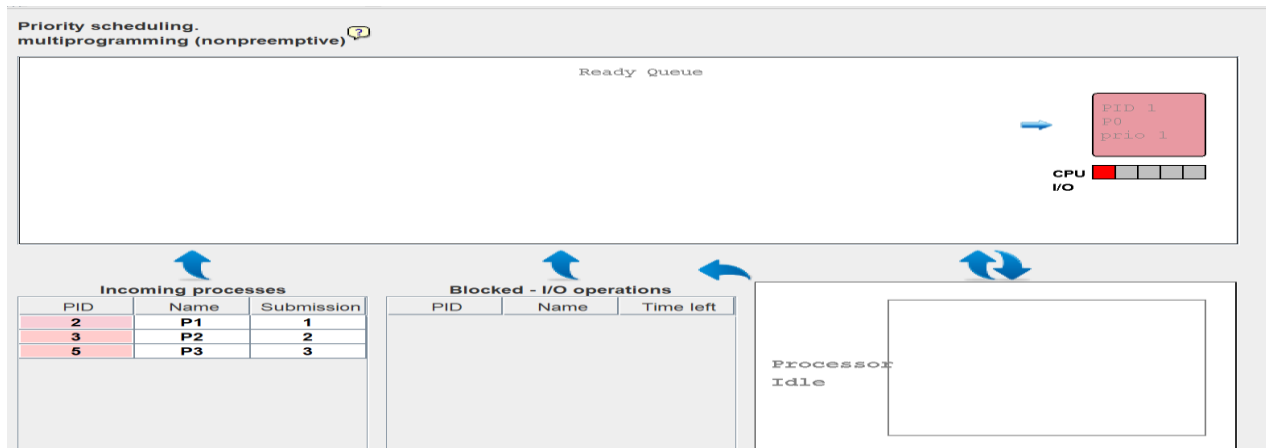
PID	Name	Priority	Submission	Periodic	CPU	Response	Waiting	Turnaround	% CPU	% IO
2	P1	1	1	-	3	0	0	3	1.0	0.0
1	P0	1	0	-	5	0	3	8	0.625	0.0
4	P3	1	3	-	6	5	5	11	0.545454...	0.0
3	P2	1	2	-	8	12	12	20	0.4	0.0

Process	Wait time : Service Time – Arrival Time
P1	0
P0	3
P3	5
P2	12
Av wait time	5.00

Kesimpulan :

SJFS = proses yang ada di ready queue akan dieksekusi berdasarkan burst time terkecil.

1.3 Priority



Process Scheduling Information

Efficiency (%)	1.00
Throughput (processes/time unit)	0.18
Avg. Turnaround Time (time)	11.50
Avg. Waiting Time (time)	6.00
Avg. Response Time (time)	6.00

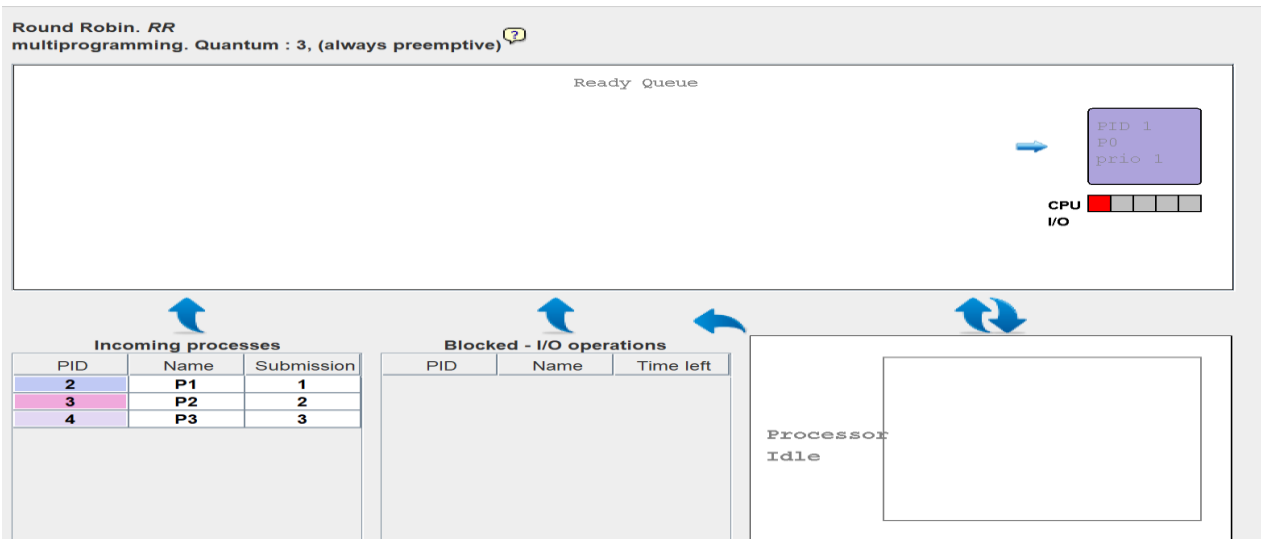
PID	Name	Priority	Submission	Periodic	CPU	Response	Waiting	Turnaround	% CPU	% IO
1	P0	1	0	-	5	0	0	5	1.0	0.0
5	P3	3	3	-	6	2	2	8	0.75	0.0
2	P1	2	1	-	3	10	10	13	0.230769...	0.0
3	P2	1	2	-	8	12	12	20	0.4	0.0

Process	Wait time : Service Time – Arrival Time
P0	0
P3	2
P1	10
P2	12
Av wait time	6.00

Kesimpulan :

Priority = Priority Scheduling merupakan algoritma penjadwalan yang mendahulukan proses yang memiliki prioritas tertinggi.

1.4 Round Robin



Process Scheduling Information

Efficiency (%)	1.00
Throughput (processes/time unit)	0.18
Avg. Turnaround Time (time)	14.00
Avg. Waiting Time (time)	8.50
Avg. Response Time (time)	3.00

PID	Name	Priority	Submission	Periodic	CPU	Response	Waiting	Turnaround	% CPU	% IO
2	P1	1	1	-	3	2	2	5	0.6	0.0
1	P0	1	0	-	5	0	9	14	0.357142...	0.0
4	P3	1	3	-	6	6	11	17	0.352941...	0.0
3	P2	1	2	-	8	4	12	20	0.4	0.0

Process	Wait time : Service Time – Arrival Time
P1	2
P0	9
P3	11
P2	12
Av wait time	8.50

Kesimpulan :

Round Robin = proses bergantung besarnya time quantum. Jika terlalu besar, algoritma ini akan sama saja dengan algoritma first come first served. Jika terlalu kecil, akan semakin banyak peralihan proses sehingga banyak waktu terbuang