

LAPORAN PRAKTIKUM SISTEM OPERASI

MODUL 11

PENJADWALAN PROSES DAN MANAJEMEN MEMORI (OSSIM)

Nama: Saidah Nur S.

NIM : L200180163

Kelas : D

Soal :

Proses	Arrival Time	Burst Time	Service Time	Priority
P0	0	7	0	1
P1	1	3	7	2
P2	2	10	10	3
P3	3	2	20	1

1. First Come First Serve (FCFS)

Process Scheduling Information										
Efficiency (%)		1.00								
Throughput (processes/time unit)		0.18								
Avg. Turnaround Time (time)		14.75								
Avg. Waiting Time (time)		9.25								
Avg. Response Time (time)		9.25								
PID	Name	Priority	Submission	Periodic	CPU	Response	Waiting	Turnaround	% CPU	% IO
1	P0	1	0	-	7	0	0	7	1.0	0.0
2	P1	2	0	-	3	7	7	10	0.3	0.0
3	P2	3	0	-	10	10	10	20	0.5	0.0
4	P3	1	0	-	2	20	20	22	0.0909090...	0.0

Process	Waiting Time
P0	0
P1	7
P2	10

P3	20
Avg Waiting Time	9.25
Avg Turn Around	14.75
Avg Response	9.25

2. Shortest Job First (SJF)

a. Preemptive

Process Scheduling Information										
Efficiency (%)		1.00								
Throughput (processes/time unit)		0.18								
Avg. Turnaround Time (time)		10.25								
Avg. Waiting Time (time)		4.75								
Avg. Response Time (time)		4.75								
PID	Name	Priority	Submission	Periodic	CPU	Response	Waiting	Turnaround	% CPU	% IO
9	P3	1	0	-	2	0	0	2	1.0	0.0
7	P1	2	0	-	3	2	2	5	0.6	0.0
6	P0	1	0	-	7	5	5	12	0.5833333...	0.0
8	P3	3	0	-	10	12	12	22	0.4545454...	0.0

Process	Waiting Time
P3	0
P1	2
P0	5
P2	12
Avg Waiting Time	4.75
Avg Turn Around	10.25
Avg Response	4.75

b. Non Preemptive

Process Scheduling Information										
Efficiency (%)		1.00								
Throughput (processes/time unit)		0.18								
Avg. Turnaround Time (time)		10.25								
Avg. Waiting Time (time)		4.75								
Avg. Response Time (time)		4.75								
PID	Name	Priority	Submission	Periodic	CPU	Response	Waiting	Turnaround	% CPU	% IO
16	P3	1	0	-	2	0	0	2	1.0	0.0
14	P1	2	0	-	3	2	2	5	0.6	0.0
13	P0	1	0	-	7	5	5	12	0.5833333...	0.0
15	P2	3	0	-	10	12	12	22	0.4545454...	0.0

Process	Waiting Time
P3	0
P1	2
P0	5
P2	12
Avg Waiting Time	4.75
Avg Turn Around	10.25
Avg Response	4.75

3. Priority Scheduling

Process Scheduling Information										
?										
Efficiency (%) 1.00										
Throughput (processes/time unit) 0.18										
Avg. Turnaround Time (time) 16.25										
Avg. Waiting Time (time) 10.75										
Avg. Response Time (time) 10.75										
PID	Name	Priority	Submission	Periodic	CPU	Response	Waiting	Turnaround	% CPU	% IO
25	P2	3	0	-	10	0	0	10	1.0	0.0
24	P1	2	0	-	3	10	10	13	0.2307692...	0.0
23	P0	1	0	-	7	13	13	20	0.35	0.0
26	P3	1	0	-	2	20	20	22	0.0909090...	0.0

Process	Waiting Time
P2	0
P1	10
P0	13
P3	20
Avg Waiting Time	10.75
Avg Turn Around	16.25
Avg Response	10.75

4. Round Robin (Quantum Time = 4)

Process Scheduling Information										
Efficiency (%) 1.00										
Throughput (processes/time unit) 0.18										
Avg. Turnaround Time (time) 14.50										
Avg. Waiting Time (time) 9.00										
Avg. Response Time (time) 5.50										
PID	Name	Priority	Submission	Periodic	CPU	Response	Waiting	Turnaround	% CPU	% IO
28	P1	2	0	-	3	4	4	7	0.4285714...	0.0
30	P3	1	0	-	2	11	11	13	0.1538461...	0.0
27	P0	1	0	-	7	0	9	16	0.4375	0.0
29	P2	3	0	-	10	7	12	22	0.4545454...	0.0

Process	Waiting Time
P1	4
P3	11
P0	9
P2	12
Avg Waiting Time	9
Avg Turn Around	14.5
Avg Response	5.50