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Relax workload (FIFO)

Input (wait)

A number of stimulated processes: 3

A number of stimulated devices: 9

A number of total requests: 100

Minimum time to process a request in millisecond: 200

Maximum time to process a request in millisecond: 400

Way to handle => Let processes wait for an empty slot: 1

Numbers	Average Waiting Time (ms)	Percentage rejected / dropped requests (%)	Total Time of stimulation (ms)
1	0.13	0.00	10657.77
2	0.30	0.00	11512.39
3	0.30	0.00	10892.70
4	0.31	0.00	11133.67
5	0.29	0.00	10695.77
6	0.30	0.00	10820.59
7	0.31	0.00	9541.45
8	0.32	0.00	9912.00
9	0.31	0.00	10062.81
10	0.30	0.00	10290.90
average	0.287	0.00	10552.01

Input (drop)

Way to handle => Drop all incoming requests: 2

Numbers	Average Waiting Time (ms)	Percentage rejected / dropped requests (%)	Total Time of stimulation (ms)
1	0.30	0.00	9866.50
2	0.31	0.00	10153.18
3	0.30	0.00	10858.27
4	0.28	0.00	10651.95
5	0.33	0.00	10622.53
6	0.29	0.00	10749.49
7	0.30	0.00	9893.39
8	0.30	0.00	10696.98
9	0.31	0.00	10359.40
10	0.29	0.00	10735.11
average	0.301	0.00	10458.68

Input (replace)

Way to handle => Replace old requests with incoming ones: 3

Numbers	Average Waiting Time (ms)	Percentage rejected / dropped requests (%)	Total Time of stimulation (ms)
1	0.31	0.00	10554.52
2	0.31	0.00	10843.90
3	0.30	0.00	10499.43
4	0.30	0.00	10189.67
5	0.31	0.00	10069.54
6	0.28	0.00	10196.58
7	0.20	0.00	10224.02
8	0.30	0.00	9957.94
9	0.29	0.00	10639.20
10	0.29	0.00	10148.61
average	0.289	0.00	10332.34

Comparison for relax workload between wait, drop, and replace

Numbers	Average Waiting Time (ms)	Percentage rejected / dropped requests (%)	Total Time of stimulation (ms)
Wait	0.287	0.00	10552.01
Drop	0.301	0.00	10458.68
replace	0.289	0.00	10332.34

Heavy workload (FIFO)

Input (wait)

A number of stimulated processes: 9

A number of stimulated devices: 3

A number of total requests: 100

Minimum time to process a request in millisecond: 200

Maximum time to process a request in millisecond: 400

Way to handle => Let processes wait for an empty slot: 1

Numbers	Average Waiting Time (ms)	Percentage rejected / dropped requests (%)	Total Time of stimulation (ms)
1	283.53	0.00	10310.19
2	286.18	0.00	10269.42
3	282.09	0.00	10188.35
4	285.40	0.00	10206.81
5	279.13	0.00	10038.38
6	285.59	0.00	10301.67
7	289.93	0.00	10561.59
8	285.81	0.00	10233.03
9	286.53	0.00	10387.08
10	288.98	0.00	10418.45
average	285.317	0.00	10291.5

Input (drop)

Way to handle => Drop all incoming requests: 2

Numbers	Average Waiting Time (ms)	Percentage rejected / dropped requests (%)	Total Time of stimulation (ms)
1	244.00	65.64	10271.75
2	262.86	65.03	10355.83
3	265.86	66.10	10660.00
4	245.70	65.52	10345.56
5	242.70	63.77	10113.46
6	248.72	65.28	10050.30
7	259.28	66.44	10512.67
8	252.36	66.78	10172.52
9	241.05	64.66	1044.60
10	249.68	64.91	10280.90
average	251.221	65.413	9380.759

Input (replace)

Way to handle => Replace old requests with incoming ones: 3

Numbers	Average Waiting Time (ms)	Percentage rejected / dropped requests (%)	Total Time of stimulation (ms)
1	88.40	68.05	11320.41
2	88.59	67.21	10750.52
3	90.03	66.44	10879.08
4	88.97	65.75	10680.85
5	85.15	68.65	11041.88
6	90.83	64.66	10491.85
7	90.42	64.29	10569.35
8	87.78	65.64	10447.38
9	85.27	66.56	10409.71
10	94.50	65.52	11208.06
average	88.994	66.277	10779.91

Comparison for heavy workload between wait, drop, and replace

Numbers	Average Waiting Time (ms)	Percentage rejected / dropped requests (%)	Total Time of stimulation (ms)
Wait	285.317	0.00	10291.5
Drop	251.221	65.413	9380.759
replace	88.994	66.277	10779.91

Relax workload (SJF)

Input (wait)

A number of stimulated processes: 3

A number of stimulated devices: 9

A number of total requests: 100

Minimum time to process a request in millisecond: 200

Maximum time to process a request in millisecond: 400

Way to handle => Let processes wait for an empty slot: 1

Numbers	Average Waiting Time (ms)	Percentage rejected / dropped requests (%)	Total Time of stimulation (ms)
1	0.33	0.00	11274.96
2	0.30	0.00	11245.87
3	0.30	0.00	10289.85
4	0.29	0.00	10331.98
5	0.30	0.00	9914.62
6	0.29	0.00	11533.98
7	0.30	0.00	9837.77
8	0.32	0.00	10213.87
9	0.31	0.00	9933.55
10	0.28	0.00	10863.76
average	0.302	0.00	10544.02

Input (drop)

Way to handle => Drop all incoming requests: 2

Numbers	Average Waiting Time (ms)	Percentage rejected / dropped requests (%)	Total Time of stimulation (ms)
1	0.29	0.00	10816.17
2	0.28	0.00	10303.12
3	0.29	0.00	10100.17
4	0.28	0.00	10548.26
5	0.28	0.00	10961.34
6	0.27	0.00	10776.90
7	0.27	0.00	9882.41
8	0.29	0.00	10449.54
9	0.27	0.00	10235.11
10	0.29	0.00	10282.33
average	0.281	0.00	10435.54

Input (replace)

Way to handle => Replace old requests with incoming ones: 3

Numbers	Average Waiting Time (ms)	Percentage rejected / dropped requests (%)	Total Time of stimulation (ms)
1	0.30	0.00	10850.45
2	0.29	0.00	9923.87
3	0.30	0.00	10615.39
4	0.30	0.00	10754.39
5	0.28	0.00	10881.61
6	0.28	0.00	9719.81
7	0.28	0.00	9968.26
8	0.28	0.00	10073.02
9	0.30	0.00	9988.26
10	0.28	0.00	10725.25
average	0.289	0.00	10350.03

Comparison for relax workload between wait, drop, and replace

Numbers	Average Waiting Time (ms)	Percentage rejected / dropped requests (%)	Total Time of stimulation (ms)
Wait	0.302	0.00	10544.02
Drop	0.281	0.00	10435.54
replace	0.289	0.00	10350.03

Heavy workload (SJF)

Input (wait)

A number of stimulated processes: 9

A number of stimulated devices: 3

A number of total requests: 100

Minimum time to process a request in millisecond: 200

Maximum time to process a request in millisecond: 400

Way to handle => Let processes wait for an empty slot: 1

Numbers	Average Waiting Time (ms)	Percentage rejected / dropped requests (%)	Total Time of stimulation (ms)
1	285.84	0.00	10419.92
2	280.36	0.00	10126.57
3	290.24	0.00	10537.78
4	291.57	0.00	10552.25
5	289.44	0.00	10358.78
6	293.42	0.00	10681.56
7	283.92	0.00	10166.14
8	286.01	0.00	10338.32
9	277.32	0.00	10010.60
10	282.40	0.00	10212.78
average	286.052	0.00	10340.47

Input (drop)

Way to handle => Drop all incoming requests: 2

Numbers	Average Waiting Time (ms)	Percentage rejected / dropped requests (%)	Total Time of stimulation (ms)
1	246.36	63.90	10071.42
2	262.00	65.52	10663.14
3	255.48	64.91	10467.86
4	261.90	66.22	10769.48
5	247.81	64.91	10195.82
6	259.87	64.41	10605.35
7	254.96	66.10	10552.23
8	264.24	66.56	10721.27
9	250.49	65.28	10423.29
10	266.46	65.87	10417.35
average	256.957	65.368	10488.72

Input (replace)

Way to handle => Replace old requests with incoming ones: 3

Numbers	Average Waiting Time (ms)	Percentage rejected / dropped requests (%)	Total Time of stimulation (ms)
1	89.18	65.87	10555.97
2	92.37	65.52	10783.19
3	87.10	67.11	10996.12
4	83.78	66.33	10512.92
5	86.19	66.89	10707.12
6	88.66	67.21	10909.32
7	87.41	67.00	10777.62
8	81.81	65.99	10689.14
9	86.99	67.11	10934.03
10	87.79	67.11	11022.38
average	87.128	66.614	10788.78

Comparison for heavy workload between wait, drop, and replace

Numbers	Average Waiting Time (ms)	Percentage rejected / dropped requests (%)	Total Time of stimulation (ms)
Wait	286.052	0.00	10340.47
Drop	256.957	65.368	10488.72
replace	87.128	66.614	10788.78

Comparison between FIFO and SJF (Relax and Heavy workload)

Schedule Algorithm		Average Waiting Time (ms)	Percentage rejected / dropped requests (%)	Total Time of stimulation (ms)
FIFO	Wait (Relax/Heavy)	0.287/285.317	0.00/0.00	10552.01/10291.50
	Drop (Relax/Heavy)	0.301/251.221	0.00/65.413	10458.68/9380.759
	Replace (Relax/Heavy)	0.289/88.994	0.00/66.288	10332.34/10779.91
SJF	Wait (Relax/Heavy)	0.302/286.052	0.00/0.00	10544.02/10340.47
	Drop (Relax/Heavy)	0.281/256.957	0.00/65.368	10435.54/10488.72
	Replace (Relax/Heavy)	0.289/87.128	0.00/66.614	10350.03/10788.78