Jonathan Masukawa (33128396) Yan Zhao (31018809) Group #32

The analysis from the algorithms makes sense and the results are expected.

FCFS - This algorithm has relatively even wait/response/turnaround time

RR - This algorithm has the lowest response time, but high wait/turnaround time

Priority - This algorithm has average wait/response/turnaround due to the randomization and even distribution of data; priority is as good as FCFS if the priorities don't relate to any other properties of the data. The preemptive version has lower response but higher wait/turnaround.

SJF (non-pre) - This algorithm has the lowest average wait of non-preemptive algorithms, as expected. This results in low response times as well, but is an unfair algorithm.

SJF (pre) - This algorithm has the lowest average wait of all algorithms, and results in lower response times and wait times compared to its non-preeemptive counterpart.

Extra Credit

ML - This multi-level algorithm (RR10, RR20, FCFS) provides low response time, but at the cost of high wait/turnaround times. The response time is higher than RR but the wait/turnaround time is lower.

ML2 - This multi-level algorithm (SJF, RR10, RR20) provides lower wait/turnaround times compared to ML, and ML2-pre has lower values for all three performance metrics than ML-pre. The advantage of using an algorithm that implements SJF in its first layer ensures that small processes are finished quickly, while negating the low response time that SJF can achieve if a process is starved via the RR 2nd and 3rd queues. If a time-based aging system is implemented with this algorithm, the large quantum used for the 3rd queue would help ensure that processes that have been around for a longer time are allowed to finish more quickly than processes that are younger, minimizing extreme values of turnaround time that can result from neglected processes.

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First Come First Serve

	Wait	Response	Turnaround
Min	0	0	7
Mean	159.17	159.17	195.01
Max	345	345	381
StdDev	101.99	101.99	104.03

Round Robin (equal time)

	Wait	Response	Turnaround
Min	0	0	7
Mean	269.32	9.75	305.17
Max	968	40	1049
StdDev	220.25	8.41	229.93

Priority (non-preemptive)

	Wait	Response	Turnaround
Min	0	0	7
Mean	154.31	154.31	190.15
Max	2067	2067	2118
StdDev	347.38	347.38	348.49

Priority (preemptive)

	Wait	Response	Turnaround
Min	0	0	7
Mean	200.28	82.61	236.12
Max	3274	1799	3325
StdDev	500.66	253.88	503.02

Shortest Job First (non-preemptive)

	Wait	Response	Turnaround
Min	0	0	7
Mean	98.3	98.3	134.14
Max	1564	1564	1629
StdDev	273.79	273.79	282.47

Shortest Job First (preemptive)

	Wait	Response	Turnaround
Min	0	0	3
Mean	94.2	88.88	130.04
Max	1564	1564	1629
StdDev	277.19	276.02	286.47

Multi-Level Priority (non-preemptive)

	Wait	Response	Turnaround
Min	0	0	7
Mean	231.54	47.63	267.38
Max	2053	2053	2104
StdDev	309.72	217.13	314.88

Multi-Level Priority (preemptive)

	Wait	Response	Turnaround
Min	0	0	8
Mean	264.68	66.32	300.52
Max	3156	3156	3207
StdDev	426.96	378.55	431.76

Multi-Level Priority 2 (non-preemptive)

	Wait	Response	Turnaround
Min	0	0	7
Mean	224.99	53.98	260.83
Max	2067	2054	2118
StdDev	313.5	215.09	318.52

Multi-Level Priority 2 (preemptive)

	Wait	Response	Turnaround
Min	0	0	8
Mean	246.68	28.25	282.52
Max	3218	1215	3269
StdDev	436	135.92	440.42

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	FCFS	Priority (non-pre)	Priority (pre)	RR (q=10)	SJF (non-pre)	SJF (pre)	MLP (non-pre)	MLP (pre)	MLP2 (non-pre)	MLP2 (pre)
Mean	159.17	154.31	200.28	269.32	98.3	94.2	231.54	264.68	224.99	246.68
Max	345	2067	3274	968	1564	1564	2053	3156	2067	3218
StdDev	101.99	347.38	500.66	220.25	273.79	277.19	309.72	426.96	313.5	436

Response

	FCFS	Priority (non-pre)	Priority (pre)	RR (q=10)	SJF (non-pre)	SJF (pre)	MLP (non-pre)	MLP (pre)	MLP2 (non-pre)	MLP2 (pre)
Mean	159.17	154.31	82.61	9.75	98.3	88.88	47.63	66.32	53.98	28.25
Max	345	2067	1799	40	1564	1564	2053	3156	2054	1215
StdDev	101.99	347.38	253.88	8.41	273.79	276.02	217.13	378.55	215.09	135.92

Turn Around

	FCFS	Priority (non-pre)	Priority (pre)	RR (q=10)	SJF (non-pre)	SJF (pre)	MLP (non-pre)	MLP (pre)	MLP2 (non-pre)	MLP2 (pre)
Mean	195.01	190.15	236.12	305.17	134.14	130.04	267.38	300.52	260.83	282.52
Max	381	2118	3325	1049	1629	1629	2104	3207	2118	3269
StdDev	104.03	348.49	503.02	229.93	282.47	286.47	314.88	431.76	318.52	440.42

Data Source Information	
Processes	100
Average Burst	40
Average Arrival	34
Average Priority	4

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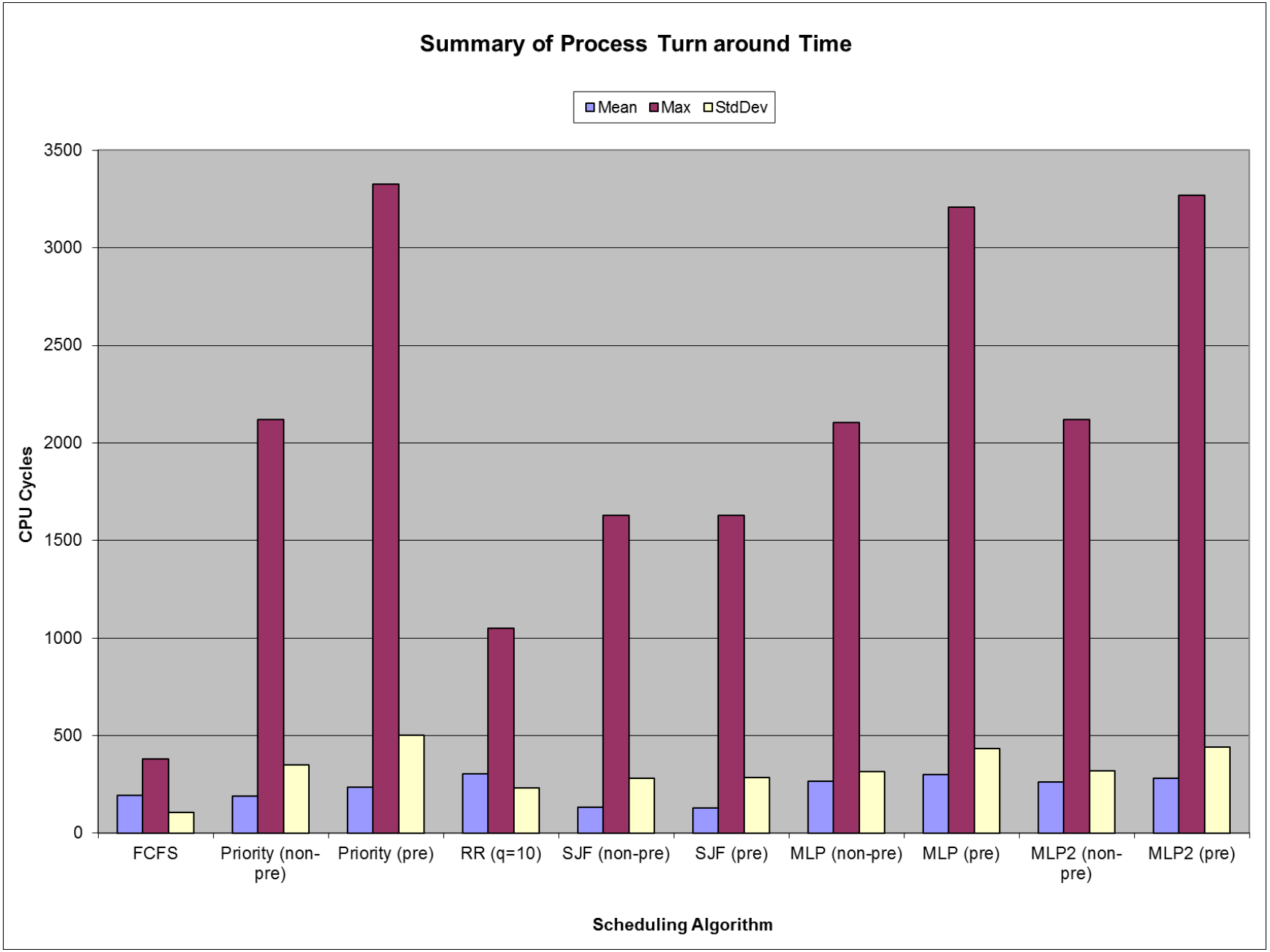

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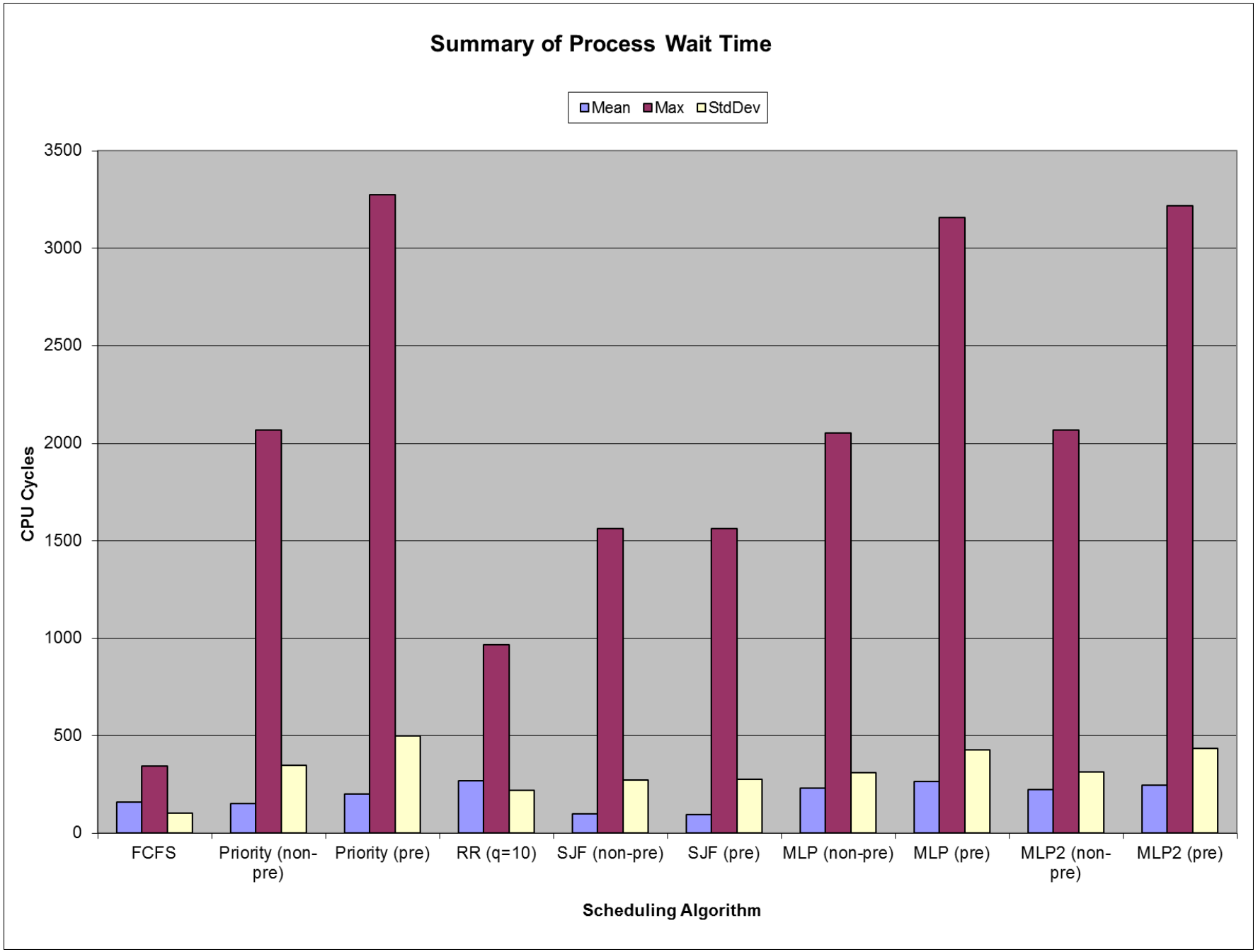

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