

Report

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We did 20 simulations where 6 of them were CPU-bound, 4 were I-O Bound and 10 were mixed.

For the CPU-Bound, the RR had the best metrics for almost all categories and is clearly the better algorithm for this situation. It has the lowest Turnaround time meaning the time between the start and competition for a process is the lowest.

CPU-Bound (6 simulations)	EP	RR	EP_RR
Avg Response Time	15.58	13.92	0
Avg Turnaround Time	40.17	38.5	48.33
Avg Wait Time	15.58	13.92	23.75
Avg Throughput	0.11	0.11	0.11

For the IO-Bound, the RR had the best metrics again for almost all categories and is clearly the better algorithm for this situation. It has the lowest Turnaround time meaning the time between the start and competition for a process is the lowest.

I/O-Bound (4 simulations)	EP	RR	EP_RR
Avg Response Time	1.50	27.83	1.50
Avg Turnaround Time	201.25	185.83	201.25
Avg Wait Time	59.58	53.08	59.58
Avg Throughput	0.011	0.105	0.115

For the Mixed, the EP_RR had the best metrics for almost all categories with the EP having the same for some. It is clearly the better algorithm for this situation and it has the lowest Turnaround time meaning the time between the start and competition for a process is the lowest.

Mix (10 simulations)	EP	RR	EP_RR
Avg Response Time	1.98	2.85	1.98
Avg Turnaround Time	10.98	11.57	10.8
Avg Wait Time	3.27	3.51	3.09
Avg Throughput	0.154	0.145	0.154

Overall: RR had a turnaround time of 54.50 ms followed by EP at 57.79 mss and EP_RR had the highest turnaround time at 60.15ms. RR was the best algorithm for this simulation as it was the best for CPU and I/O bound as well as being the overall best one.