

Performance Comparison

| Name | Total Time | P1 | P2 | P3 | P4 | P5 |
|------|------------|------|------|------|-------|------|
| FCFS | 36627 | 6030 | 5719 | 6019 | 10130 | 8729 |
| RR | 35099 | 6949 | 7050 | 6940 | 7030 | 7130 |
| PBS | 35610 | 6950 | 7040 | 7000 | 6990 | 7130 |
| MLFQ | 28738 | 5980 | 5920 | 5510 | 5769 | 5560 |

Observations:

1. In FCFS, the range of runtimes is quite sparse.
2. In RR, the runtimes are balanced and close together.
3. In PBS, it either imitates RR or FCFS based on the priorities.
4. In MLFQ, there is a noticeable performance improvement.

Comments:

FCFS: Even though this is the worst in terms of runtime, it is the most fair algorithm and doesn't cause starvation.

RR: Runtime improves, and is more stable here and the algorithm is again fair and not prone to starvation.

PBS: Imitates either RR or FCFS based on the priorities unless process arrive anytime in between(not benchmarked) or if priorities change. Algorithm isn't as fair and is prone to starvation.

MLFQ: By far the most efficient algorithm, aging removes the problem of starvation.