

Scheduling Options - Summary

Various possible objectives to optimize-for with your scheduling:

1. **Fairness** – Ensure equitable distribution of tasks or resources among workers or machines or perceived fairness for the customers waiting.
2. **Urgency** – Prioritize tasks based on deadlines or critical timelines.
3. **Maximum Output** – Maximize the overall production or throughput within a given time frame.
4. **Minimized Lead Time** – Reduce the time taken to complete a task from start to finish.
5. **Resource Utilization** – Maximize the efficient use of available resources (machines, labor, etc.). (Is keeping everything busy really the objective...)
6. **Minimum Cost** – Minimize costs related to operations, such as labor, materials, or overtime.

What are your operations scheduling optimized for?

Possible scheduling methods commonly used in operations management:

1. **First Come, First Served (FCFS)** – Tasks are processed in the order they arrive, without considering priority or urgency. (Also known as "First In First Out" (FIFO)).
2. **Shortest Processing Time (SPT)** – Tasks with the shortest processing time are completed first to minimize average job duration.
3. **Earliest Due Date (EDD)** – Jobs with the closest deadlines are prioritized to reduce lateness or missed deadlines.
4. **Round Robin (RR)** – Each task is given an equal time slice in a rotating order, useful in shared resource environments.
5. **Longest Processing Time (LPT)** – Tasks with the longest processing time are completed first, often used to balance workloads.
6. **Weighted Shortest Job First (WSJF)** – Prioritizes tasks based on their value or importance relative to their duration.

(Note that this 2nd list of scheduling methods does not correlate with the first list of possible optimization objectives.)