Conclusions about the performance of each scheduler

First-Come-First-Serve (FCFS):

- FCFS is **simple** and easy, but it suffers from the "convoy effect," where short processes get stuck behind long processes, also it make high priority process have to wait. It performs well with a mix of short and long processes but can lead to poor performance.

Shortest Job First (SJF):

- SJF is the best approach to **minimize waiting** time by selecting the shortest job first. It performs exceptionally well with short processes, leading to low turnaround times. However, predicting the exact burst time is often a problem, and it may suffer from starvation for longer processes.

Shortest Time-to-Completion First (STCF):

- STCF dynamically selects the process with the shortest remaining time. It is often considered a **preemptive version of SJF** It improves on SJF adapting to changes in the workload. However, predicting exact burst times remains a challenge, and it may still suffer from the convoy effect.

Round Robin (RR):

- RR is simple and ensures **high fairness** by giving each process a time slice. It performs well with a mix of short and long processes, **preventing starvation**. However, it may have higher turnaround times and waiting times compared to more dynamic algorithms like SJF and STCF.

Priority Scheduling:

- Priority scheduling assigns priorities to processes and selects the one with the **highest priority**. It works well when the priorities are accurately assigned. However, it can suffer from starvation if not handled carefully (through priority aging).

Multilevel Feedback Queue (MLFQ):

- MLFQ dynamically adjusts **priorities** based on the behavior of processes. It is effective in handling a **mix** of short and long processes. It provides good responsiveness for interactive tasks and **prevents starvation** of long processes through priority aging.

Stride Scheduling:

- Stride scheduling assigns a "stride" to each process, ensuring **fair** allocation of CPU time. It is effective in preventing the convoy effect and provides fairness. However, setting appropriate strides can be challenging.