

Shortest-Job-First Scheduling

This algorithm is associated with each process length of the next CPU storage. When the CPU is available, it is given a process with the next minimum CPU burst. If the two processes are the similar length for the next CPU explosion, the FCFS configuration is used to break the tie.

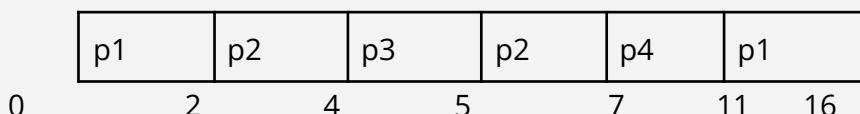
If a new process arrives with CPU burst length less than remaining time of the current executing process, preempt, his scheme is known as the Shortest-Remaining-Time-First (SRTF).

SJF is optimal – gives a minimum average waiting time for a given set of processes.

Example of Preemptive SJF

Process	Arrival Time	Burst Time
P1	0.0	7
P2	2.0	4
P3	4.0	1
P4	5.0	4

Gantt Chart:



SJF (preemptive)

Average waiting time = $(9 + 1 + 0 + 2)/4 = 3$ ms