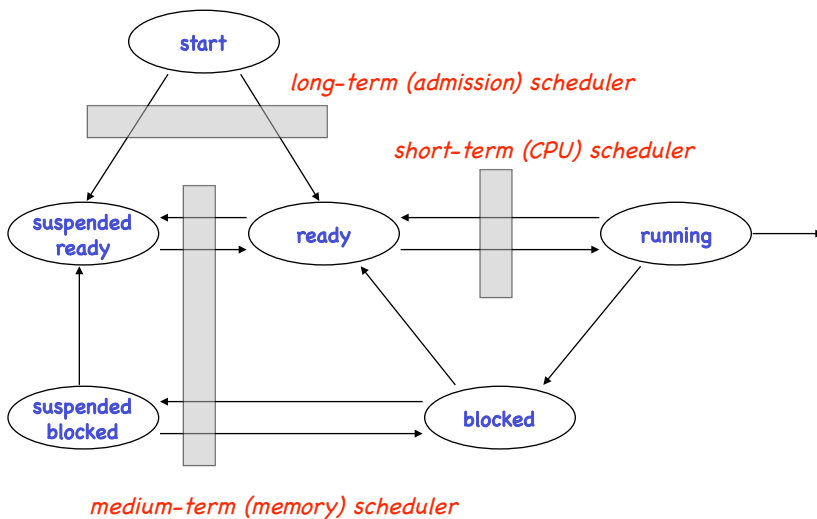


CPU Scheduling

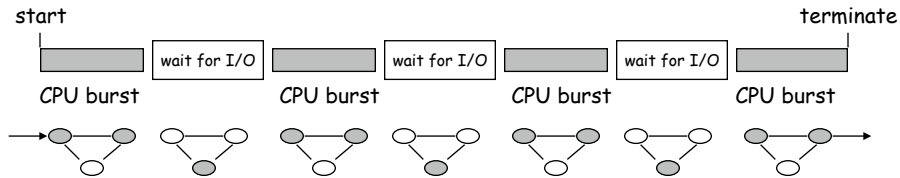
- Schedulers in the OS
- Structure of a CPU Scheduler
 - Scheduling = Selection + Dispatching
- Scheduling Algorithms
 - FIFO/FCFS
 - SPF / SRTF
 - Priority - Based

Schedulers



Focus: Short-Term Scheduling

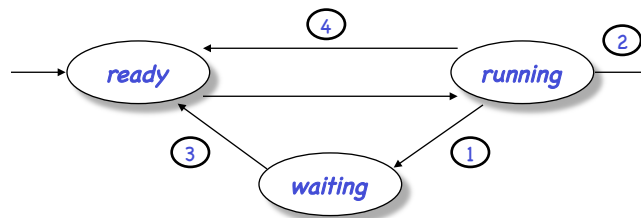
- Recall: Motivation for **multiprogramming** -- have multiple processes in memory to keep CPU busy.
- Typical execution profile of a process/thread:



- **CPU scheduler** is managing the execution of CPU bursts, represented by processes in ready or running state.

Scheduling Decisions

"Who is going to use the CPU next?!"



non-preemptive

Scheduling decision points:

- 1. The running process changes from *running* to *waiting* (current CPU burst of that process is over).
- 2. The running process *terminates*.
- 3. A waiting process becomes *ready* (new CPU burst of that process begins).
- 4. The current process switches from *running* to *ready*.

preemptive

