**Task Scheduling**

Generally, high-level scheduling is job scheduling, and low-level scheduling is process scheduling. The function of task scheduling is to determine which process in the ready queue gets how many computing resources. There are mainly two modes for task scheduling: non-preemptive-mode (forbid suspending) and preemptive-mode (allow suspending)

Multiple algorithms can be applied to task scheduling.

1. First come first serve (FCFS)

Select a process from the ready queue that enters the queue first, assign a processor to it, and put it into operation. The process does not abandon the processor until it has completed or an event has blocked it.

2. Shortest Job First (SJF)

Select a job/process with the shortest estimated running time from the reserve queue/ready queue and assign the processor to it so that it can execute immediately and continuously until it is completed, or reschedule when an event occurs, and the processor is blocked and abandoned.

3.Priority Scheduling

The system will select several jobs with the highest priority from the backup queue to load into memory. When it is used for process scheduling, the algorithm assigns the processor to the process with the highest priority in the ready queue.4. Round Robin

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The system arranges all ready processes into a queue according to the principle of first come first serve. Each time when scheduling, the CPU is assigned to the first process of the queue, and it is ordered to execute a time slice. When the execution time slice is used up, a timer sends out a clock interrupt request, and the scheduler stops the execution and sends it to the end of the ready queue. It ensures that the system can respond to all users' requests within a given time.

We decide to use SJF algorithm. The module is expected to：

1. create tasks

2. assign arrival time and burst time, computing waiting time and turnaround time.

3. sorted the processes based on burst time

4. finding the next process according to arrival time

5. call tasks