

OS HW3 report

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Question	Answer
Q1. Briefly describe about your data structure for recording process' time or anything you need to record.	It has some attributes: 1. id: to record the id of each process. 2. arrival: the arrival time of each process. 3. burst: the remaining burst time. 4. tt: turnaround time of each process. 5. wt: waiting time of each process. 6. deadline: the time it should requeue (for RR).
Q2. How to simulate process scheduling?	1. SRTF: interrupt the scheduling loop whenever there is a process ending or a new process arriving, requeue current process if it's not finished and queue in the new process. After that, choose the shortest remaining time job to run.

	<p>2. RR: give each running process a deadline, which equals to current time + min(time quantum, its remaining burst), the process would won't requeue to the end until reaching its deadline. Every newly arriving process or reaching deadline would queued to the end and choose the first process to run.</p> <p>3. RR+FCFS: change the destination of process that reached deadline to FCFS queue. FCFS is like SRTF without sorting, and interrupted whenever a new process arriving RR.</p>
<p>Q3. Some problems you meet and how to resolve.</p>	<p>1. All finished processes are directly popped, can't record turnaround time and waiting time. Solve: use another</p>

	array and id to record all the processes.
Q4. What you learned from doing OS hw3 and something you want to discuss with TAs.	The concept of the scheduling algorithms is easy to understand and simple to calculate manually, but programming needs to consider a lot more situation. Thanks to this homework, I went through the algorithms and understand them thoroughly.