# OS HW3 report

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| Question | Answer |
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| Q1.<br>Briefly describe about your data structure for recording process' time or anything you need to record. | I used struct to record the arrival time, burst time, start time, completion time, turnaround time of each process. And I also used an array to record the remaining burst time of each process. |
| Q2.<br>How to simulate process scheduling? | I use while loop to find the suitable process one by one in all 3 algorithms. In SRTF, I find the next process by the smallest remaining time. In round-robin, I first arrange the processes by arriving time, and then pick the processes accordingly, and push back the processes that cannot finish their tasks in the time quantum. In multilevel feedback queue, we do the same as round robin, but we put the processes can not finish there task in another queue instead of the original queue, and we also need to record whether the previous process is in second level queue or not because the behavior when preemption happens is different. |

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| Q3.<br>Some problems you meet and how to resolve. | When I was writing the code, I found it hard to translate my thought into codes at first, then I read some references online, and found that using loops to scan through each process is very useful. While I was writing round robin, it was hard to put processes who arrived during other process was using CPU in front of the current process, then I used an array called mark to record the status, it solved my issue. |
| Q4.<br>What you learned from doing OS hw3 and something you want to discuss with TAs. | I found that the algorithms that are easily done by hand is hard to describe by codes, since everything needs to be stated explicitly, and it is hard to build algorithms from scratch without referencing existing approaches.<br>TAs have been very kind and efficient, hope you guys can have a balanced daily life even though there are tons of homework and problems waiting for you. Keep up the great work. 😭💖😻💪 |