# Simple Report

518030910059 Yulong Hui

Just record some interesting things or some difficulties (in fact, they are simple things) during my project.

**1.** First, when setting the environment, I updated my SDK, which causes a lot of difficulties, because it's too new to the supporting kernel. Then, I just downloaded another version after several struggling attempts.

**2.** Since the avd-screen needs a long time to appear, starting it in a no-window mode saves lots of time.

**3.** To code in windows system easily, we can choose to use vscode with a remote plug-in. On the other hand, I once downloaded the linux-kernel in my windows, then I directly add an include-path of the downloaded libraries, which can also meet the requirement of autocomplete.

**4.** When dealing with the problem1, I find the organization of task_struct very interesting. Its children and sibling are both stored in a list_head which has no data member. Then we use list_entry( ) with the offset of member to get the detailed data. This design is amazingly suitable for kernel code because it only takes tiny space.

**5**. In problem2, I need to get the depth of some process to decide the number of "\t", then I need to map the pid-number to the depth. However, there is no stl map in c standard library so I write a simple hash-liked map. Considering the pids are not absolutely continuous, the map instead of a simple

array will help to increase the performance (but not too much).

**6**. In problem4, I think that the cook can make the burger if he finds the rack is not full, then after making he will wait for an empty place or directly put the burger if there exists an empty place. Therefore, I think we had better treat making and putting differently instead of just print “make a burger” (That is just a personal suggestion, and I still finished the task following the original requirement).

**7**. In problem4, the cooks and the cashiers are always working, so the thread can not terminate itself. So, I set a monitor to kill the threads after getting the finish signal from customers.