CS411: Individual Writeup - Group 13

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What do you think the main point of this assignment is?

The main point of this assignment was several fold.

1. For us to learn how to compile the linux kernel.
2. For us to understand how the linux scheduler works.
3. For us to work as a team to create a Round Robin and FIFO process scheduler.
4. And for us to learn to work as a group.

How did you personally approach the problem? Design decisions, algorithm, etc.

I began by reading. I re-read most of Chapter 4 of Linux Kernel Development to make sure I really understood the concepts, and then dove into the code. Starting in *sched_rt.c*, once I discovered the **SCHED_RR** and **SCHED_FIFO** constants, I grepped around for them in all the kernel files. This lead me to the *include/linux/sched.h* and *kernel/sched.c* files, which contained the *struct sched_class* needed to implement scheduling classes.

I let my group know that I felt we were somewhat off track by not implementing two new scheduling classes based on the *struct sched_class*, but they were both confident that we were only supposed to *replace* what had been taken out.

So, I set my differences aside, and went with their decision.

How did you ensure your solution was correct? Testing details, for instance.

After our group realized we had to compile the kernel *on* the Squidly, it worked quite well. We knew that during the bootup phase of the kernel, it uses Round Robin and FIFO scheduling for processes. Thus, we determined that if it booted, and we could login, our solution was correct and working as intended.

What did you learn?

1. Compiling is hard.
2. Depending upon how things turn out for this assignment, I probably need to stick up more for my beliefs.

   If my group isn't going the direction I feel the teacher intended for them to go, I should probably double check with the teacher.
3. Get things working as soon as possible

   One of the reason I think we might have gotten off track is due to the long amount of time it took to get the Squidly up and running with a new compiled kernel.