

HW 3: Priority-based Scheduler for xv6

<https://github.com/Mar915/myxv6>

Task 1. Modify the provided ps command to print the priority of each process.

I just added the ps.c to the make file and system calls. Printf() kept misaligning the text output and couldn't get them to align correctly. For some reason between priority and cputime does a huge tab space.

```
init: starting sh
$ ps
pid    state  age    size    priority    cputime  ppid    name
1      sleeping 12288  0        0          0        init
2      sleeping 16384  0        0          1        sh
3      running  12288  0        0          2        ps
$ S
```

Task 2. Add a readytime field to struct proc, initialize it correctly, and modify ps to print a process's age.

I used the current time minus the readytime to calculate the age. The age is shifted to the right, still couldn't fix the printing issue.

```
init: starting sh
$ pexec 5 matmul 5 &; matmul 10 &
$ pexec 10 ps
Time: 72 ticks
pid    state  age    size    priority    cputime  ppid    name
1      runnable 336    12288  0          0        0        init
1      runnable 12288  0        0          0        init
2      sleeping 16384  0        0          1        sh
6      runnable 336    12288  0          0        1        matmul
6      runnable 12288  0        0          1        matmul
5      zombie   12288  0        0          1        pexec
8      sleeping 12288  0        0          2        pexec
9      running  12288  0        0          8        ps
```

Task 3. Implement a priority-based scheduler.

I couldn't figure this out.

Task 4. Add aging to your priority based scheduler.

I couldn't figure this out.

Extra Credit Task (10 points).