

COMP3000 - Exercise 9 (Individual)

The /proc File System

March 18, 2018

Using the module concept, implement a file named `<your 1st name here>_clock` in the directory `/proc`, for example `/proc/michel_clock`.¹ When function `read()` is called, the module should return the *time of day* in the second and microsecond format. The result is returned as a string.

Example:

```
$ sudo insmod michel_clock.ko
$ ls -l /proc/michel_clock
-r--r--r-- 1 root root 0 Feb 26 16:42 /proc/michel_clock
$ cat /proc/michel_clock
1488145467 sec 920381 usec
```

Hint: Study the Linux kernel implementation of function `gettimeofday()`, on *The Linux Kernel Archives*.

Due date: April first. Submit your work on cuLearn. This exercise must be done in the C programming language under Linux (make sure it runs on Ubuntu 16.04 64-bit). Submit a single *tar.gz* file. Source code and a make file must be included. You are responsible for the completeness of your submission. You are responsible for submitting your work on time. Submissions that do not compile are not accepted.

¹Use your cuLearn first name.