



Due: Midnight, January 16<sup>th</sup>, 2020

## 1. Virtual Machine Setup

You need a running Linux Virtual Machine (VM) for this class. One way to create this VM is available on Oaks at <https://lms.cofc.edu/d21/le/content/231992/viewContent/2722923/View> but it's up to you if you have an alternative.

- a. From a terminal window in this VM provide the output of the following commands:

- i. `uname -a`
- ii. `ps -al`
- iii. `cat /proc/meminfo`
- iv. `cat /proc/cpuinfo`

- b. Search on the web for the `uname` and `ps` commands (hint, try `man uname`). Give a brief, one or two sentence explanation of each command in your own words, don't cut and paste.

## 2. Clone git Repository

You will want a copy of the code from the ebook. The author's git repository is located at <https://github.com/remzi-arpacidusseau/ostep-code>.

- a. Clone the repository (git clone command). If you haven't done this before, here's a link to help: <https://help.github.com/en/github/creating-cloning-and-archiving-repositories/cloning-a-repository>.
- b. Change into the directory for the ostep code, run the following command and provide the output:

```
git status
```

## 3. "C" Editing and Compiling

As we discussed in class you can compile and link a C program using the Gnu C compiler (gcc). Write a C program that will just print the addresses of the parameters passed from the command line. The `cpu.c` program we looked at in class will provide an example of accessing the parameters. You can use a while loop or a for loop (<https://www.w3resource.com/c-programming/c-for-loop.php>). Print the addresses using the `%p` format code (<http://www.cplusplus.com/reference/cstdio/printf/>).

Submit:

- a. A listing of the code (I don't need a source file).
- b. The output from running (assuming you named your source file `hw1.c`):  
`./hw1 p1 p2 p3`