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This assignment is due on 29. May 2020

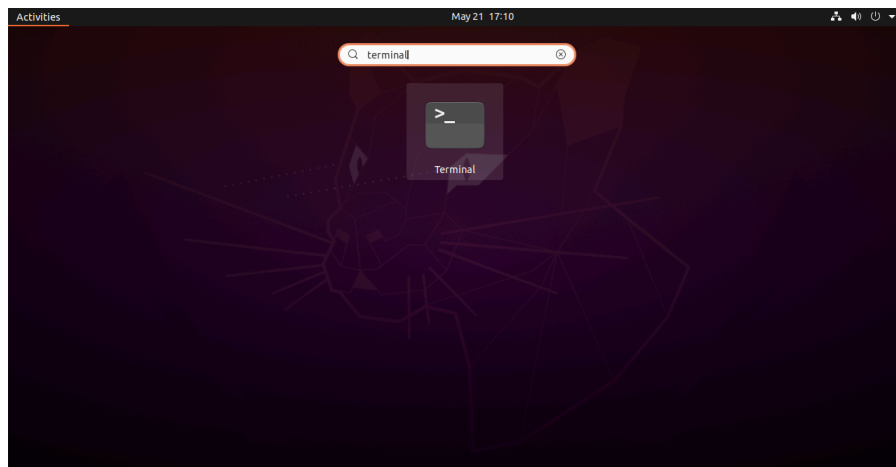
Submission must be made on the OJ.

Lab 0

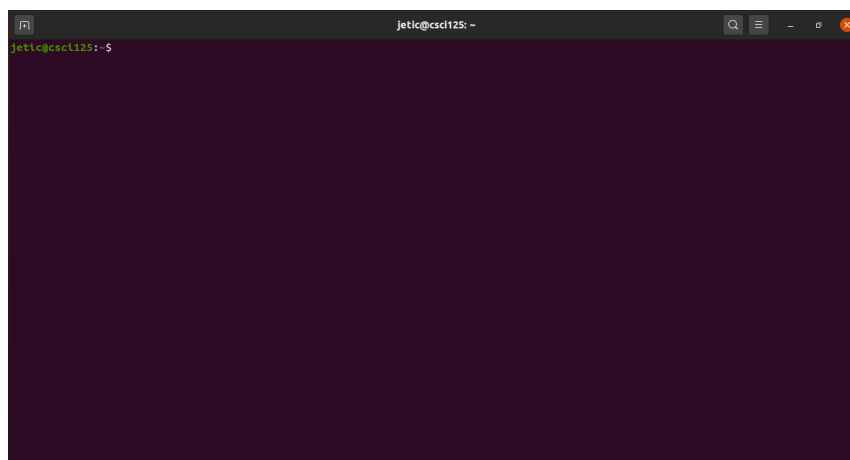
1. Setup

The following instructions apply to Ubuntu (a popular Linux distribution) only. If you are using macOS or Windows 10 Linux subsystem, some of the commands may not be necessary or applicable.

After successful installation of your system, please open up your Terminal. It can be done by going to `Activities` on the top-left corner of your desktop and type "Terminal".



Once you've done so, a window should pop up.



Before the cursor, you will see a prompt like this



```
jetic@csci125:~$
```

`jetic` here is the username you typed during installation. `csci125` is the name you gave for the computer. After the colon is a tilde sign `~`, in Linux/Unix, this is your Working Directory, similar to the directory you are under in Windows Explorer or macOS Finder. Every command you execute is going to be under this directory unless otherwise specified. The dollar sign `\$` means the command you are typing will be executed as a normal user in system shell.

Install Some Packages

Please type the following commands in the command line:

```
$ sudo apt update
$ sudo apt upgrade
$ sudo apt install vim
$ sudo apt install build-essential g++ gdb
```

Never include the first dollar sign, it just means that you are executing the command as a normal user. You will be asked to enter your password. Select `yes` when applicable.

Basic commands

1.1 cd

```
$ cd XXX
```

`cd` refers to change directory. XXX here is the directory you wish to access. The following 4 are special cases:

```
$ cd ~      # Go to home directory
$ cd /      # Go to the root directory (highest level)
$ cd ..     # Go to the upper directory
$ cd .      # "." stands for the current directory
```

1.2 ls

```
$ ls
```

`ls` will list out all of the files and folders under the current directory. If you wish for a more comprehensive view including permission information and hidden files, use:

```
$ ls -afl
```

1.3 rm

```
$ rm XXX
```

`rm` can be used to delete files and folders. The above command deletes files only, if you wish to delete folders, use:

```
$ rm -r XXX
```

Here the `-r` option means recursive.

1.4 cat

```
$ cat XXX
```

`cat` is not an animal. It prints the contents of file `XXX`.

1.5 man

```
$ man ANY-OTHER-COMMAND
```

`man` stands for manual, it gives you a complete interface for viewing the help manual of supported commands. Try the following for instance:

```
$ man ls
```

You can use the arrow keys on your keyboard to navigate the manual. To exit the manual, press `q`.

1.6 mkdir

```
$ mkdir cheese
```

This will create a new folder named `cheese` under your current working directory.

1.7 pwd

```
$ pwd
```

This will print out the current working directory for you.

1.8 vim

```
$ vim tmp.cpp
```

`vim` is a text editor that I would recommend to any command line programmers because it is highly customisable. During next week's class we will have an in class tutorial to `vim`, for now you are more than welcome to check out this youtube video for some prep info: <https://www.youtube.com/watch?v=ggSyF1SVFr4>

You Instructions

You do not have to submit anything for this portion of Lab 0. Play around inside Linux command line, make sure you know the first 7 commands above will be good enough.

Here's some other interesting commands:

- mplayer: play music and movies in command line
 1. installing mplayer:

```
$ sudo apt install mplayer
```
 2. play stuff (find your own mp3 file though):

```
$ mplayer get_lucky.mp3
```
- telnet: watch a command line version of Star Wars by
 1. installing telnet:

```
$ sudo apt install telnet
```
 2. run this command:

```
$ telnet towel.blinkenlights.nl
```
- w3m: terminal browser, ever wondered what internet looked like before GUI?

1. install w3m: `$ sudo apt install w3m`
2. Google something: `$ w3m www.google.com`

2. Your First Online Test

You must register for an account to finish this part on the Online Judge: <http://139.162.15.171:81>

Then please go to contest and finish Lab 0. The DDL is 29 May. Don't worry, there's enough time to do that.