

## 1 Hints:

### Shell Commands:

- Use ‘ls’ along with a path to list the files/directories of that location.
- Use ‘pwd’ to get the exact location where you are in the file system.
- Use ‘cd’ along with a path to move around in the file-system.
- Use the ‘mv’ command to move a file to another location in the file-system or rename the file.
- Use the ‘cp’ command to duplicate a file and optionally rename the file at the same time.
- Use ‘cat *filename*’ to print the text inside of a file to the terminal.

### VIM Commands:

- Use ‘view *filename*’ to open a file in read-only mode [RO].
- Use ‘vi *filename*’ or ‘vim *filename*’ to open a file.
- Use the ‘esc’ key in VIM to go back to normal (i.e. command) mode.
- Assuming you are in normal mode, use the ‘i’ key in VIM to go into insert mode for editing.
- Assuming you are in normal mode, use the ‘v’ key in VIM to go into visual mode.
- Assuming you are in visual mode, move your cursor using the keys on your keyboard to select some text you want yank (copy), cut, or delete.
- Assuming you are in visual mode, use the ‘y’ key to yank (copy) text or ‘x’ to cut text.
- Assuming you are in visual mode, use ‘d’ to delete the selected text.
- Assuming you are in visual mode, use ‘p’ to paste your previous yanked/cut content.
- Assuming you are in normal mode, use the ‘p’ key in VIM to paste anything you yanked or cut previously.
- Assuming you are in normal mode, type ‘dd’ to delete an entire line.
- Assuming you are in normal mode, type ‘yy’ to yank (copy) an entire line.

## 2 Instructions:

You have the choice between doing one of the two labs below. You can either do the “Guided Lab” or the “DIY Lab”. Please only do **ONE** of the labs. Only one will be graded.

### 2.1 Guided Lab

In the guided lab this week, you will edit your VIM configuration to include some useful configurations like line numbering etc. At the end of the lab, you should copy the ‘.vimrc’ file and rename it to ‘**username.lab02.guided.txt**’.

1. Open a terminal in your home directory ‘~’.
2. Use ‘pwd’ to show the global path of where you are located in the file system. Notice the global path of your home directory ‘~’ is located in a folder named after your username. This ‘username’ folder is inside of another directory called ‘acct’ which is in the root directory ‘/’. So the global path of your home directory ‘~’ is something like ‘/acct/username’. ‘~’ is a relative path and abbreviation to the global path ‘/acct/username’. So, in short, ‘~’ is the same location as ‘/acct/username’.
3. Use the ‘ls -a’ command while inside your home directory ‘~’ directory. You should see a lot more files and directories starting with a dot ‘.’ These files that start with ‘.’ are hidden files/directories.
4. Create your VIM configuration file called ‘.vimrc’ in your ‘~’ directory using the following command: ‘vim .vimrc’
5. You should now have the VIM text editor open editing a file called ‘.vimrc’. Inside of this file ‘insert’ the following configurations:

```
syntax on
set ruler
set autoindent
set number
set ignorecase
color elflord
```

6. You can find more configurations for VIM on my GitHub and online:  
<https://github.com/s7117/.dotfiles/blob/main/etc/vimrc>
7. If you do not like the ‘elflord’ color scheme you can type the VIM command ‘:col-  
orscheme’ with a space and then hit the ‘tab’ key inside of VIM.

8. Write (i.e. save) and quit (i.e. exit) your `‘.vimrc’` file.
9. Use `‘cat .vimrc’` to display the text content of the `‘.vimrc’` and confirm it has the contents you just wrote into the file.
10. Now use `‘vim .vimrc’` once again to open your VIM configuration file to see the new changes! You should see line numbers and see that the color scheme you set is now the default color scheme.
11. Force quit (i.e. quite without saving) VIM.
12. Copy your `‘.vimrc’` file to your `‘~/Desktop’` directory and rename it to `‘username_lab02_guided.txt’` in **ONE COMMAND**. Review the `‘cp’` command if you need help.
13. Inside the `‘username_lab02_guided.txt’` file in your `‘~/Desktop’` directory, write your full name at the top of the file using VIM along with a short summary of the process you used to complete this lab and any hurdles you encountered.
14. Once again write and quit the `‘username_lab02_guided.txt’` file and then use `‘cat username_lab02_guided.txt’` to confirm that the text was saved from the previous step.
15. Upload your `‘username_lab02_guided.txt’` file to Dropbox.

## 2.2 DIY Lab

The DIY Lab has **THREE** requirements:

1. You must use each of the commands in the ‘Hints’ section **at least once** and you must document the **full** commands you use.
2. You must create a deliverable file named `‘username_lab02_DIY.txt’` for submission to Dropbox.
3. You should describe what you did in lab, why you did it, and how you did it inside of your `‘username_lab02_DIY.txt’` file. That is, you should describe what you did (i.e. created a simple calculator), why you did it (i.e. it is for another class, to grade my course work, etc.), and how you did it (i.e. what commands you used, I wrote a script).

Your submission file should be well thought out and easy to read to get full credit for the lab. In general, you should expect that DIY Labs to be scrutinized more.

### **3 Submission**

Submit your submission file to Dropbox. Be sure to name it correctly depending on if you did the ‘Guided Lab’ or the ‘DIY Lab’ section.