COP 3223 Introduction to Programming in C, Section 203
Fall 2016

Unix tutorial

1 How to log in to Eustis

In order to log in to Eustis, you will need to be on a UCF network. If you are logging in from off campus, you can use VPN to get you onto the UCF network. A tutorial on how to set up VPN is available at: `http://www.cst.ucf.edu/about/telecommunications/network-services/vpn/`

Click on "UCF VPN Guide" for instructions on how to install and run VPN on your computer.

Once VPN is running...

1.1 Mac OSX

1. Click on the Applications directory.
2. Click on the Utilities directory.
3. Click on the Terminal application (Terminal.app) to open a terminal window.
4. At the terminal window prompt, enter "`ssh <your nid>@eustis.eecs.ucf.edu`". For example, if your nid is `cprog`, then you would enter "`ssh cprog@eustis.eecs.ucf.edu`".
5. The system will prompt you for you password. Enter your password.
6. When you see the command prompt, you have succesfully logged in.

1.2 Windows

1. Download putty from `http://www.chiark.greenend.org.uk/~sgtatham/putty/`.
2. Run putty.
3. In the "host" textbox, enter "`eustis.eecs.ucf.edu`".
4. The system will then prompt you to enter your nid and password.
5. When you see the command prompt, you have succesfully logged in.

2 Ok, I'm logged in. Now what?

2.1 Change your password

The first thing you should do is to change your password. To do this, enter "`passwd`" at the command prompt. The system will ask you to enter your current password and your new password.

2.2 Log out

Once you've changed your password, you can log out of the system by entering "`logout`" at the command prompt.

Log back in with your new password to verify that your password was changed.

2.3 Look around on your account

When you first log in to `eustis`, you will be placed in your home directory. At the command prompt, enter "`pwd`" to print your current working directory. Your current working directory is the directory that you are currently in. If your current directory is your home directory, the system should return the following:

```
/home/<your nid>
```

For example, if your nid is `cprog`, then the system will return:

```
/home/cprog
```

Next, enter "`ls`" to see what is in your directory. If your account is brand new, then your home directory is probably empty, and the system will return nothing, just the command prompt again.

If you do have files and directories in your account, the "`ls`" command will print a list of all of the files and directories in your current directory.

The command "`ls -a`" will list several files that start with a period. Of note are the following:

- A single period (`.`) refers to the current directory.
- Two periods (`..`) refer to the parent directory.

2.4 Creating and managing directories

The "`mkdir`" command makes or creates a new directory. The "`cd`" command allows you to change directories. The "`rmdir`" command removes or deletes a directory.

Let's create a directory in which to save your COP 3223 homework assignments. At the command prompt, enter "`mkdir cop3223`".

Enter "`ls`". You should now see a directory called `cop3223` in the list that the "`ls`" command prints out.

Enter "`cd cop3223`" to move into the `cop3223` directory. Next, enter "`pwd`". The system should return

```
/home/<your nid/cop3223
```

Recall that a single period (`.`) refers to the current directory and two periods (`..`) refer to the parent directory. Enter "`cd .`" – this command basically says to "change directory into your current directory", which basically means that you stay where you are.

Enter "pwd" again. The system should again return

/home/<your nid/cop3223

Enter "cd .." to move back up to the parent directory. You should now be back in your home directory. Enter "pwd" to verify.

Enter "cd cop3223" to again move into the cop3223 directory. Next, enter "mkdir hw1" to create a directory in which to store your file for Homework 1.

Enter "cd hw1" to move into the hw1 directory. Enter "pwd". The system should return

/home/<your nid/cop3223/hw1

Enter "cd ../.." to move up two parent directories, back to your home directory. Enter "pwd" to verify your location.

Enter "cd cop3223" to again move into the cop3223 directory. Enter "rmdir hw1" to delete the hw1 directory. Enter "ls" to verify that hw1 has been deleted. Note that a directory must be empty in order to be deleted. If there are files or directories within a given directory, that given directory cannot be deleted using the rmdir command.

2.5 Editing and managing files

There are three commonly used Unix text editors: emacs, vi, and pico. Links to reference material for each of these editors are available on the class website.

The "cp" command copies one file into another file. The command "cp fileA fileB" copies a file called fileA into a file called fileB. Once this command is executed, you will have two files: fileA and fileB.

The command "cp fileA cop3223/fileB" copies a file called fileA that is in your current directory into a file called fileB in the directory cop3223. Once this command is executed, you will have fileA in your current directory and fileB in the cop3223 directory.

The command "cp fileA cop3223/." copies a file called fileA that is in your current directory into the directory cop3223. The period indicates that the destination files should have the same names as the source files. Once this command is executed, you will have fileA in your current directory a second file called fileA in the cop3223 directory.

The "mv" command renames one file with another name. The command "mv fileA fileB" renames a file called fileA into a file called fileB. Once this command is executed, you will have a file named fileB but will no longer have a file named fileA.

The command "mv fileA cop3223/" moves a file called fileA that is in your current directory into the directory cop3223. Once this command is executed, you will have a file named fileA in the cop3223 directory, but will no longer have a fileA in your current directory.

The "rm" command deletes a file. The command "rm fileA" permanently deletes the file called fileA from your directory.