Lab - 1

Week of Jan. 7, 2018

1. This file should be available to you from your Moodle account. Please ensure that you are logged into your proxy (`https://proxy22.iitd.ac.in/cgi-bin/proxy.cgi`) and have set the *automatic proxy configuration* on Firefox to point to `http://www.cc.iitd.ac.in/cgi-bin/proxy.btech`. Please see here for details: `http://www.cc.iitd.ernet.in/CSC/index.php?option=com_content&view=article&id=62&Itemid=90`.

2. Sign up for piazza: `http://piazza.com/iitd.ac.in/spring2018/col100`

3. Set your prompt to something interesting and put it in the file `.bash_profile` in your home directory. Demonstrate to your TA that on opening a new terminal, the correct prompt shows up (if this does not work, try with the file `.bashrc`). Experiment with options from here: `https://www.gnu.org/software/bash/manual/html_node/Controlling-the-Prompt.html#Controlling-the-Prompt`.

4. An 'alias' is an "easy to remember" short cut for a longer command. For example, to change directory to the root directory, we could set up an alias called "cdroot" as follows (note that $ indicates the prompt, so do not type that in):   `$ alias cdroot="cd /"` Whenever the command `cdroot` is typed, it should automatically take you to the root directory. Another example we saw in class was the `ls` command. Try the following alias – note that the *command name* remains `ls`, but it actually executes something else: `$ alias ls="ls -alGp"` If the command doesn't quite work as expected, check the 'man' page for the command and look at the options.

   Set up a couple of interesting aliases. Put your new prompt and the aliases in your .bash_profile file. See them in action by using the `$ source .bash_profile` command.

5. Create a text file that contains the following in the first line: The number of letters in your name, followed by a space, then your name. This should be the only line present in your file. Upload this file to moodle and ensure that no errors are returned. Ask your TAs for help if you are not sure how or where to upload this file.

6. Create a text file which contains your name followed by a comma and space and your entry number. In the next line, type in at least 4 sentences about

yourself. Overall, your file should contain *at least* 100 characters and *at most* 500 characters. Upload this to moodle and ensure that no errors are returned.

7. Create a directory for this course. Create 2 subdirectories, one for the labs and one for the assignments in this course. Create a text file under the labs directory for today's lab, write a short entry on tasks that were completed today. i) Set permissions to your files so that only you can read and write to it. ii) Set permissions to the enclosing directory so that only you can read/write/execute everything within, but others can only read. Show this to your TA before you leave. Find out how to set permissions here: `https://www.thegeekstuff.com/2010/06/chmod-command-examples`.

8. (Optional) Find out how to use the `grep` and `find` commands.