CS246—Assignment 0

Due: Friday, May 15, 2015, 04:55pm

This assignment is designed to get you familiar with the most basic aspects of working with Linux, and with assignment submission. **It is not worth any marks, but you must get 100% on this assignment to get credit for the other assignments.**

1. Using a web browser, go to the site `https://git.uwaterloo.ca`. Log in via the LDAP option using your WatIAM username and password. This will activate your account on `git.uwaterloo.ca`. You do not need to do anyting further on `git.uwaterloo.ca` for this assignment. The remaining commands should be executed from your command line shell.

2. Log into your `linux.student.cs` account and execute the command `ls`. You should see a directory entitled `cs246`. If you do not see this directory, create it via the command `mkdir cs246`.

3. Navigate to your `cs246` directory: `cd cs246`.

4. Verify that you are in your `cs246` directory: `pwd`.

5. Check out the course GIT repository:

   ```
   git clone https://git.uwaterloo.ca/cs246/1155.git
   ```

   When prompted, enter your WatIAM username and password.

6. Verify that the checkout succeeded: `ls`. You should see a directory called `1155`.
   (Parenthetical note: 1155 is Quest-speak for Spring 2015. The last digit is the month, and the first three digits, added to 1900, give the year.)

7. Navigate to the repository's assignment 0 directory: `cd 1155/a0`.

8. Once again, verify that you are in the correct directory: `pwd`.

9. Using a text editor (either vi or emacs), create the file `hello.txt`, with contents exactly as shown below:

   ```
   Hello from Linux!
   I used vi.
   ```

   If you used Emacs, replace `vi` above with `emacs`. You should press enter at the end of the first line, and at the end of the second line. Once you have created the file, use the `wc` command to determine how many lines the file contains. Take note of the relationship between the number of times you pressed Enter, and the number of lines contained in the file. The exact result will depend on your editor.

10. Using a text editor (either vi or emacs), create the text file `path1.txt` that contains the answer to the following question: if your current directory is `/u/jdoe/cs246/1155`, what relative path is equivalent to the absolute path `/u/jdoe/cs246/1155/lectures/c++/overload`? Make sure, as always, that your file ends with a newline character (whether this implies that you must press Enter will depend on your editor). Use `wc` to verify for yourself that your file consists of exactly one line.

11. Using a text editor (either vi or emacs), create the text file `path2.txt` that contains the answer to the following question: if your current directory is `/u/jdoe/cs246/1155`, what relative path is equivalent to the absolute path `/u/jdoe/cs245/a1`? Make sure, as always, that your file ends with a newline character. Use `wc` to verify for yourself that your file consists of exactly one line.

12. Read the manual page for the `wc` command: `man wc`.

13. Use `wc` to count the number of *words* in your file `hello.txt`, and use output redirection to store the result in the file `hellowords.txt`.

14. Create a text file called `promise.txt` that contains the following text, all on one line:

    ```
    I promise not to publicly ask for or provide hints about Marmoset test cases
    or assignment solutions on Piazza.
    ```

15. Make a zip file containing all of the files in your a0 directory: `zip a0.zip *` — make sure you are in your `cs246/1155/a0` directory when you do this.

16. Read the document on the CS241 course website about submitting assignments to Marmoset:

    ```
    http://www.student.cs.uwaterloo.ca/~cs241/w3m
    ```

17. Submit the file `a0.zip` to Marmoset.

Submitting using the marmoset_submit command

Enter the command: `source /u/cs246/setup`.

This gives you access to the `marmoset_submit` command which allows you to submit assignments to marmoset from the terminal. The command is invoked as follows:

```
marmoset_submit course project file
```

where course will be cs246, project will be the name of the project on marmoset, and file is the file you are submitting.

Brief note on the use of Git

We will be using Git to disseminate course material. This includes assignments, tutorial material and examples on topics covered in class. By performing step 4 above you have `cloned` the repository the course staff will be using. As the term progresses, new material will be `pushed` to the repository. It is YOUR job to update your repository on a regular basis so that you have available to you the latest material that has been committed.

For more information about Git see the Course Notes, `http://en.wikipedia.org/wiki/Git_(software)` and `https://git-scm.com/`.

In particular, look at the `pull` command that you need to use to update your repository with any new information that we `push`.

Quick tip: typing "`git help`" will list all the Git commands available to you. Typing "`git help pull`" will show you the help page for the pull command.

Important: Remember to be inside the `cs246/1155` directory before executing the pull command.