**Homework 1, Problem 1**

**CSc 473, Web Site Design, Spring 2014**

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| **Instructor** | Michael Grossberg |
| **Due** | February 15th, 2013 |

**Problem 1: DVCS**

In this problem you will set up a Bitbucket account. Create a local repository. Modify some files, make some commits and push to bitbucket. Since this is fundamental to the course, if you cannot figure out, or find the time to do this, you should drop the course immediately.

**Background**

Modern professional programmers live and die by distributed version control systems. Version control provides backup, and the freedom to make changes and undo them. More than that, it makes it easy for large groups of people to remotely collaborate.

Remote collaboration is very important in professional settings where programmers and designers, working on a project, may be spread across the globe. It is even more crucial in open source project where remote collaborations are even more common.

There are a few full featured, performant Distributed version control systems (DCVS). The two most popular are Git, and Mercurial. Git was Linus Torvalds, the developer of Linux. It is probably the most popular one, and has many technical advantages. It is also notoriously complex, and difficult for beginners. Mercurial has most of the core functionality of Git but is much simpler to use. For this reason we will use Mercurial.

**Text Editor**

You will need a **text** editor for this problem. I strongly advise you not to use windows. On windows text lines are rn whearas on unix machines they are n. This can cause no end of grief.

I recommend you use vim. I will put some learning resources for vim in the content area. Knowing how to use vim will certainly be a useful skill, but it takes some getting used to.

**Problem**

1. Create an account on bitbucket. You can set up a free account at

<https://bitbucket.org/>

The bitbucket site has documentation which you should read. In addition the syllabus gives links to Mercurial (aka hg) tutorials and documentation. If you go back to the content page you will see articles and videos on using Mercurial. Time you put in now will save you lots of time later.

1. Create a new repository called csc473S14hw1. (private)
2. Clone your repository to your local directory. On mac or linux you can just use the hg command line command. This is possible on windows as well but slightly tricker to install. You may want to use tortoisehg on windows or possibly even on Mac.

<http://tortoisehg.bitbucket.org/>

1. Use a **text** editor: using a word processor for this is definitely an epic FAIL. Create a file called ".hgignore" which should look like this:
2. # use glob syntax.
3. syntax: glob
4. \*\*.pyc

\*\*~

1. Use a **text** editor to create a file called "hw1\_problem\_1.txt" with Lincoln's Gettysburg Address:
2. Four score and seven years ago our fathers brought
3. forth on this continent, a new nation, conceived in
4. Liberty, and dedicated to the proposition that all men
5. are created equal.
6. Now we are engaged in a great civil war, testing
7. whether that nation, or any nation so conceived
8. and so dedicated, can long endure. We are met on a
9. great battle-field of that war. We have come to
10. dedicate a portion of that field, as a final resting
11. place for those who here gave their lives that that
12. nation might live. It is altogether fitting and proper
13. that we should do this.
14. But, in a larger sense, we can not dedicate -- we can
15. not consecrate -- we can not hallow -- this ground.
16. The brave men, living and dead, who struggled here,
17. have consecrated it, far above our poor power to add
18. or detract. The world will little note, nor long
19. remember what we say here, but it can never forget
20. what they did here. It is for us the living, rather,
21. to be dedicated here to the unfinished work which they
22. who fought here have thus far so nobly advanced. It is
23. rather for us to be here dedicated to the great task
24. remaining before us -- that from these honored dead we
25. take increased devotion to that cause for which they
26. gave the last full measure of devotion -- that we here
27. highly resolve that these dead shall not have died in
28. vain -- that this nation, under God, shall have a new
29. birth of freedom -- and that government of the people,
30. by the people, for the people, shall not perish from

the earth.

The program that does the matching is fairly tolerant to white speace but be careful. It is a character for character match so don't copy paste it from someplace else.

1. Add it to repo with the command "hg add", then commit it to the repo using

hg commit -m "This is my initial commit"

If you forget to use the "-m" with a message you will find yourself in editor, most likely vi. Then you have to write your commit message.

1. Push it to bitbucket with the command "hg push"
2. Modify the file by replacing the Gettysburg Address with the poem, 'The New Colossus' (see wikipedia):
3. Not like the brazen giant of Greek fame,
4. With conquering limbs astride from land to land;
5. Here at our sea-washed, sunset gates shall stand
6. A mighty woman with a torch, whose flame
7. Is the imprisoned lightning, and her name
8. Mother of Exiles. From her beacon-hand
9. Glows world-wide welcome; her mild eyes command
10. The air-bridged harbor that twin cities frame.
11. "Keep, ancient lands, your storied pomp!" cries she
12. With silent lips. "Give me your tired, your poor,
13. Your huddled masses yearning to breathe free,
14. The wretched refuse of your teeming shore.
15. Send these, the homeless, tempest-tost to me,

I lift my lamp beside the golden door!

1. Commit the changes to the repository.
2. Push the change to bitbucket.
3. Invite me and the grading robot to share your bitbucket hw repository, my bitbucket username is "mdogy" and the grading robot's bitbucket username is "teamglass7311". Do not use my ccny email or my gmail account. Use these two usernames on bitbucket.
4. You must use **Firefox** to submit your homework. We cannot get Chrome or Internet Explorer to work properly. You must first go to

[https://134.74.146.30](https://134.74.146.30/)

Initially you will find this site blocked. It will say this connection is "untrusted".

* + You must click the text "I understand the Risks".
  + You click Add Exception (button)
  + You click the "Get Certificate" button
  + You need to click the "confirm the security exception"

You should see "Welcome to nginx!" at [https://134.74.146.30](https://134.74.146.30/) in Firefox. If you see that everything should be ok. You then can go to blackboard with firefox. You can't switch browers. The certificate you accepted only works for Firefox.

1. On blackboard, when asked to enter the bitbucket url, enter the information in a single line with nothing else. It should look like this:

ssh://hg@bitbucket.org/yourbitbucketusername/csc473s14hw1

where you change yourbitbucketusername to your bitbucket username and you put your homework for homework1 in a repo called:

csc473s14hw1