Gitolite Bootstrap

For this course, we will be collecting assignments via git. We have decided to use a service called gitolite.

Your user name is your EID. There are no passwords, only SSH keys.

Tyler is responsible for maintaining our gitolite instance, any submission questions/problems should be directed to him.

**Send me your SSH key**

In an email to Tyler ([thunt@cs.utexas.edu](mailto:thunt@cs.utexas.edu)) include your eid and paste your ssh public key in the body (not as attachments please!). Make sure to send only the public key (e.g. “id_rsa.pub”) Adding new users requires some manual work from us, so it is in your best interest to do this as soon as possible.

If you don't have an ssh key, you can generate one easily on a Unix platform by simply running:

```
ssh-keygen -b 2048
```

By default this should create ~/.ssh/id_rsa and ~/.ssh/id_rsa.pub remember to send the latter.

Windows users should look into generating keys with putty.

**Linux and OSX instructions**

Run the following command in order to check if you have access.

```
ssh cs371m@git.cs.utexas.edu
```

If your account is working you should see something like this:

```
PTY allocation request failed on channel 0
hello your_EID, this is cs371m@git1 running gitolite3 v3.6.3-11-g2417156 on git 2.5.1

R C FS15/CREATOR/.*
[...]
Connection to git.cs.utexas.edu closed.
```

**Fix for multiple SSH keys**

If you have submitted your key and the above does not work, it is likely that your SSH keys are not configured correctly. Try adding the following to ~/.ssh/config:

```
Host gitolite
  Hostname git.cs.utexas.edu
  IdentityFile /path/to/private/key
  IdentitiesOnly yes
```
If you use the above method, replace “git.cs.utexas.edu” with “gitolite” in all situations. For example, the command to check access would become “ssh cs371m@gitolite”.

**Create a new and (empty) repository**

To create a new repository on gitolite you simply clone it.

```bash
git clone cs371m@git.cs.utexas.edu:FS16/your_EID/repository_name
```

There is a strict repository naming requirement. For homework assignments, your repository should be named exactly “homework#” where “#” is replaced with the homework number. For homework 1, the repository name should be “homeowork1”. Repositories named differently will not be graded.

Therefore, in order to initialize your repository for homework 1 run the following:

```bash
git clone cs371m@git.cs.utexas.edu:FS16/your_EID/homework1
```

This will create a local repository called homework1.

**Windows Instructions**

Download and install PUTTY.

You can check if you have access to the gitolite server by connecting to `cs371m@git.cs.utexas.edu` in putty.

There are several things you will need to configure in putty before this will work:

- Your ssh key, go to `connection > ssh > auth` and enter the correct path
  - If you are importing a key that you did not generate using PUTTYGEN, you may need to use PUTTYGEN to convert your private key to a format PUTTY can understand.
- When you connect to this address, the shell will tend to close before you can read the output. There should be a setting you can enable that doesn’t close the window until you manually press X.

If your account has been enabled, you should see something like this:

*Using username "cs371m".*

*Authenticating with public key "imported-openssh-key"*

`PTY allocation request failed on channel 0
hello your_EID, this is cs371m@git1 running gitolite3 v3.6.3-11-g2417156 on git 2.5.1`

```
R C FS15/CREATOR/*. *
[...]
Connection to git.cs.utexas.edu closed.
```
Create a new and (empty) repository

In order to interact with git you will need to download and some sort of git client. I have had luck with Source Tree, but if you would like to use something else feel free to do so. The text below explains how to set things up using Source Tree.

Add your SSH key to Source Tree. Remember, if you are importing your SSH key it may be necessary to convert it using PUTTYGEN.

Put in your name and email address. Go to Repository > Repository Settings > Advanced

There is a strict repository naming requirement. For homework assignments, your repository should be named exactly “homework#” where “#” is replaced with the homework number. For homework 1, the repository name should be “homework1”. Repositories named differently will not be graded.

The full path of the repository is cs371m@git.cs.utexas.edu:FS16/your_EID/homework#

To create a new repository on gitolite you simply clone it. Use the GUI to clone the following repository for homework 1:

cs371m@git.cs.utexas.edu:FS16/your_EID/homework1

This will create a local repository called homework1.