Configuring_git

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Configuring git

Note, this is a working document describing how we get:

1. Git and github configured
2. An initial fork of the class repo
3. Rprojects setup to use the github fork as our personal repo
4. Git configured locally to allow pushing to our personal repo
5. Git configured to pull changes from the upstream branch (class repo)

Step 1: get git

Download git from https://git-scm.com

Step 2: sign up for a github account

https://github.com

Step 3: configure your ssh keys

1. In R, go to Tools –> Global Options.

2. Click on the Git/SVN icon in the window that pops up.

3. If you havn't messed with SSH keys, go ahead and click generate RSA key.

4. Once done, click on view public key and then copy the key (everything in the window).

5. You now need to add this to your GitHub profile. In Github, click on the pulldown to view your profile and choose settings then SSH and GPG keys.

6. Click on New SSH key and paste you RSA public key there.

Step 4: configure your local git

```
git config --global user.email "you@example.com"
git config --global user.name "Your Name"
```

Step 5: fork the class repo

In Github, you will want to "fork" my class repo.

1. Search for STAT_5014.

2. Towards the right top of the page, you will see a little icon labeled "Fork". Click on this to create a linked copy of my repo in your GitHub repo set. You should now be in your Git repo set.

3. Look at the repo name towards the top left, it should be /STAT_5014. IF so, click on the clone or download button to the middle right. Copy the https address which should look like https://github.com/_your username_/STAT_5014.git . MAKE sure the link has YOUR user name.

Step 6: setup Rproject

1. In R: File –> New Project –> Version Control –> Git

2. In the Repository URL box, past the https address from Part A.

3. In the Project directory name box, type STAT_5015_homework

4. In the Create project as subdirectory, browse to where you want your homework files to live.

Step 7: Configure git to allow updates from an upstream fork

If you type this, you should get output as shown:

```
git remote add upstream https://github.com/rsettlage/STAT_5014.git
git remote -v ###this should give the following output
origin    https://github.com/YOUR_USERNAME/YOUR_FORK.git (fetch)
origin    https://github.com/YOUR_USERNAME/YOUR_FORK.git (push)
upstream  https://github.com/ORIGINAL_OWNER/ORIGINAL_REPOSITORY.git (fetch)
upstream  https://github.com/ORIGINAL_OWNER/ORIGINAL_REPOSITORY.git (push)
```

Step 8: get upstream changes and merge with your fork

```
git fetch upstream
git checkout master
git merge -Xtheirs upstream/master
```

To get updates, repeat step 8.

If you want to read more about this:

https://help.github.com/articles/configuring-a-remote-for-a-fork/
https://help.github.com/articles/syncing-a-fork/

Cheatsheet
https://services.github.com/on-demand/downloads/github-git-cheat-sheet/

Just in case https://stackoverflow.com/questions/7244321/how-do-i-update-a-github-forked-repository