

Configuring git

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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 | don't need to do this if working from cloud instance

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

Step 2: sign up for a github account

<https://github.com>

Step 3: configure your ssh keys

In R:

1. Go to Tools -> Global Options.
2. Click on the Git/SVN icon in the window that pops up.
3. If you haven'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 GitHub USER Name"
```

Step 5: fork the class repo

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

1. Search for STAT_5014_2018.
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. The repo name towards the top left should be /STAT_5014_2018. 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_2018.git . MAKE sure the link has YOUR user name.

Step 6: setup Rproject | convenient setup, we will use command line to manage our repos

In R:

1. 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_2018.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
```

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>