Short tutorial on Git and GitHub

Prof. Bei Xiao

Most information is grabbed from this website

https://git-scm.com/about

1. Installing Git from here:

https://git-scm.com/book/en/v2/Getting-Started-First-Time-Git-Setup

If you have already installed Git, in a terminal, you can type
git

It will show you some commands. Otherwise, if you don't have Git, it will ask you to install it.

Git Basics:

2. Follow the set up instructions here:

https://git-scm.com/book/en/v2/Getting-Started-First-Time-Git-Setup

For example, you can configure your git by setting your name and email:

git config --global user.name "Bei Xiao"
git config --global user.email bxiao@american.edu

I would highly recommend change the default editor to emacs:
git config --global core.editor emacs

3. Setting up a Git Repository
More details of these commands you can find here:
https://git-scm.com/book/en/v2/Git-Basics-Getting-a-Git-Repository

Go to a project directory using command line in your Terminal and type

git init

Create a new git repository.

git add filenames

for example, you want to add recipe.css in your folder:
git add recipe.css

If you want to add all .html in your folder so that the all the .html files can be tracked.

git add *.html

First commit message

git commit -m 'initial commit'

Check status of the commit and the changes

git status

4. Create repository on github.com

Go to github.com and create an account and a new repository
and then come back to the terminal

Here is more tutorial on Github.com

https://git-scm.com/book/en/v2/Git-Basics-Recording-Changes-to-the-Repository

this is only done once after you create the new repository on github, for example:

git remote add origin https://github.com/fruittree/CSC435WebProgramming.git

git push -u origin master

This will prompt to ask for your username and password for github.

If, for some reason, you have an error message, you can always do:

git pull origin master

commit changes. If you have made some changes of your file in your local directory,
you can commit the changes.

git commit -m 'added comment'

to see what changes you have made, you can do:
git diff

You can also check your actions by typing:
git diff

To remove a file:

rm projects.md

View the commit history:

git log

Author: Bei Xiao <bxiao@american.edu>
Date: Fri Jan 29 19:51:01 2016 -0500

modified recipe.css

Error shooting regarding rejected updates.

If you get the following messages:

```
hint: Updates were rejected because the remote contains work that
you do
hint: not have locally. This is usually caused by another
repository pushing
hint: to the same ref. You may want to first integrate the remote
changes
hint: (e.g., 'git pull ...') before pushing again.

Do this:

git pull --rebase remote
```

5. Remove unwanted file at the remote.

First, remove the files from the local repo.

git rm –r Filename

Second, commit the changes
git commit –m 'removed unwanted'

Finally, update/push the local changes

git push -u origin master

6. Clone repository

Downloading another someone else's repo, navigate the repository to github

Copy clone url on the page, for example.

Git clone `https://github.com/fruittree/CSC5892017Fall`

7. For branching, please see the following tutorials:

https://github.com/Kunena/Kunena-Forum/wiki/Create-a-new-branch-with-git-and-manage-branches

8. For collaborating on a project on Github, see this tutorial:

https://code.tutsplus.com/tutorials/how-to-collaborate-on-github--net-34267