GitHub Cheat Sheet

By Corey Johnson

This cheat sheet is intended for people on either Windows or Mac. We will be using the GitHub desktop application, as well as some Git Bash! Please make sure you have GitHub Desktop installed. The screenshots are from Windows, but with some effort you can do the same on Mac. The only difference is where certain things are located.

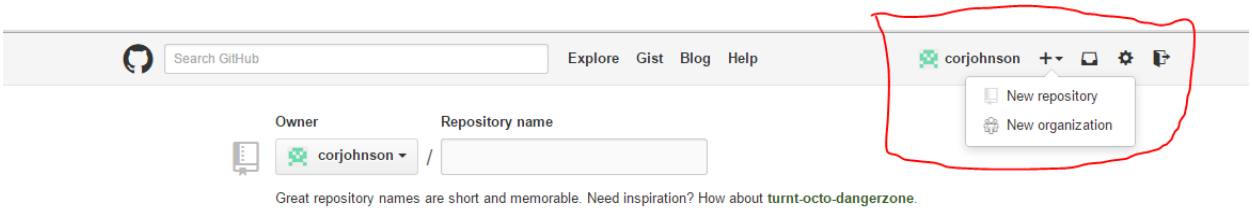
Creating a repository:

Steps:

1) Navigate to your profile page in GitHub

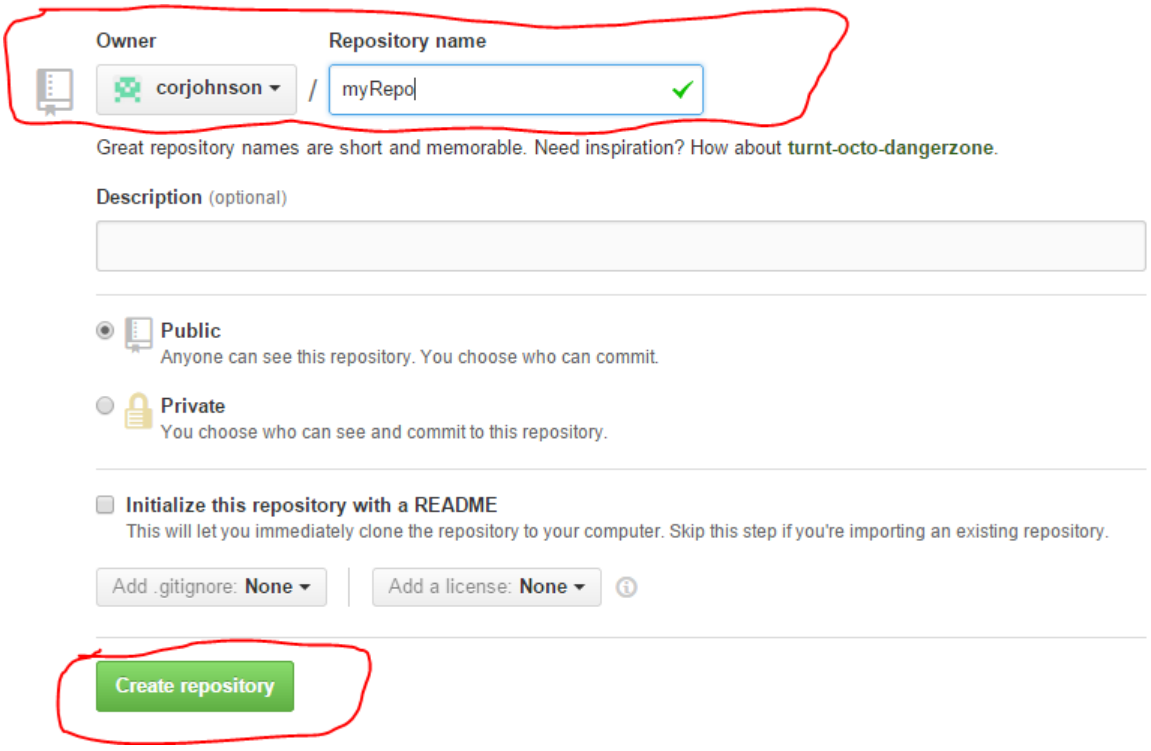
2) In the top right corner of the page, locate the + icon

3) In the drop down menu, select: “New Repository”



4) Enter a Repository Name

5) Hit the “Create Repository” button



Congratulations, you have now made a repository! You will see a page with some next steps. You can either follow those, or go to the next section: “Cloning a repository to the desktop”.

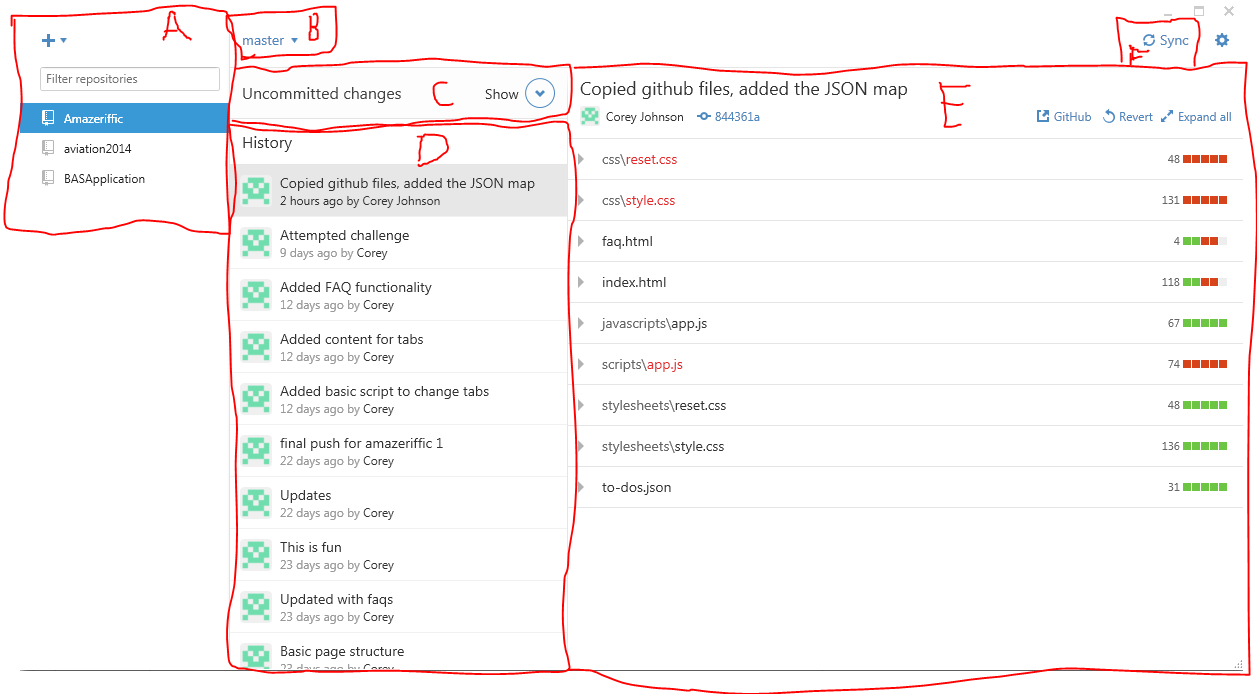
Cloning a repository to the Desktop:

Steps:

1) Install the GitHub Desktop application if you have not already done so.

2) Open GitHub Desktop

3) You will see a page similar to this



A) This is the repositories currently on your computer that GitHub has detected. A repository is a folder that stores files, and will keep track of changes made to the files.

B) This is the current branch you are on. You shouldn't worry about branches yet, for now make sure you are on "master".

C) This is the "Commit" section, which tracks any changes you have made in the current repository.

D) This shows the history of past commits you have pushed onto the repository. You can click on them to view changes in E.

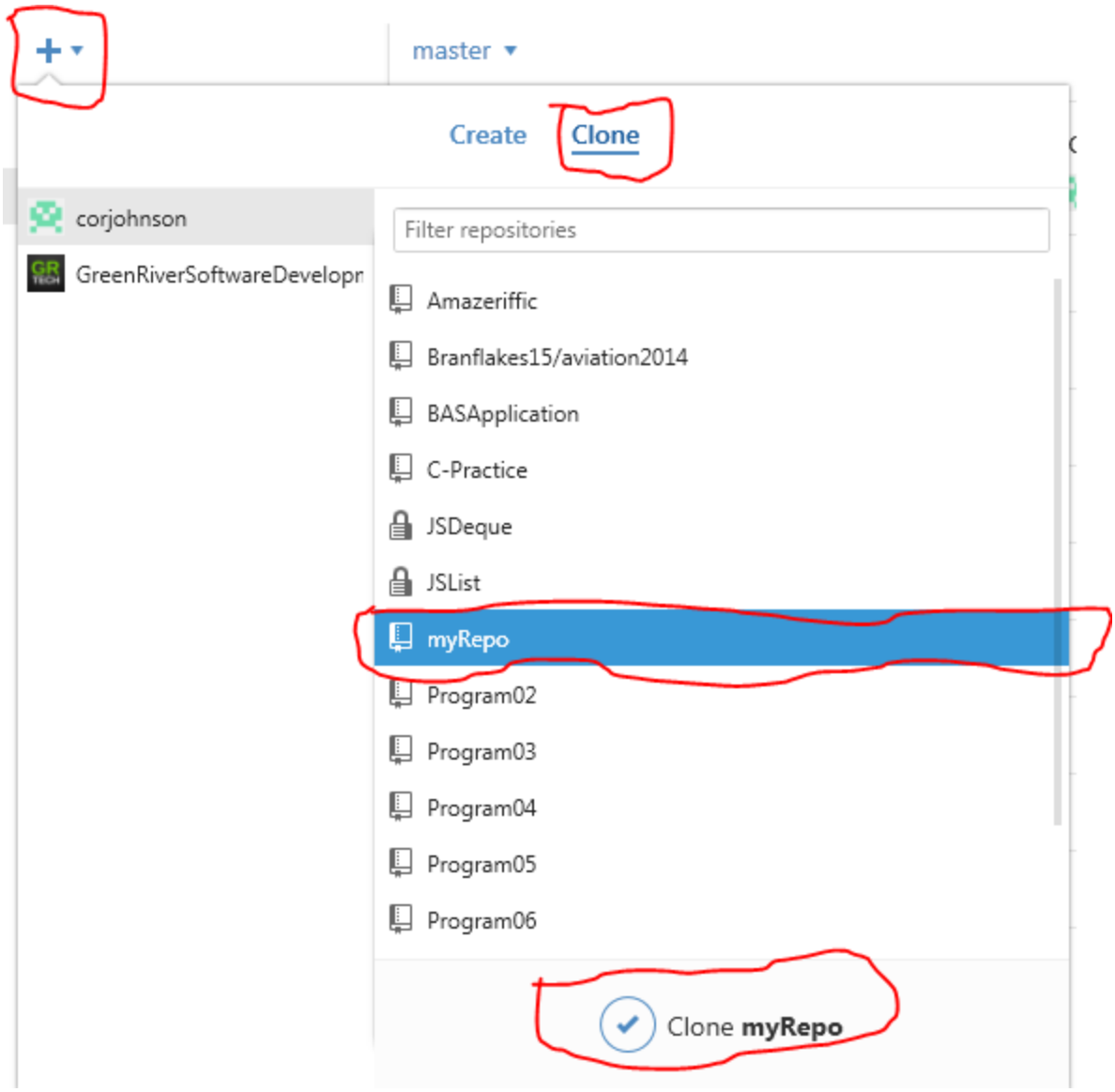
E) This is the viewer. You can see any changes you may have made. Red indicates the removal of an item/line/file in the project. Green indicates something has been added or changed.

F) The sync button is in the top right corner, and is your lifeline. Any time you are going to make changes, hit the sync button to make sure you are up to date!

4) To clone a repository to your desktop, click the + in the top left

5) Make sure Clone is underlined, and select the repository you wish to clone!

6) Click the Clone [RepositoryName] button at the bottom and select the destination of your folder.



7) Click the sync button in the top right of the GitHub application (It may appear as “Publish”)

Congratulations, your repository has been successfully cloned to your computer! To add changes to the repository see the “Committing to a repository section”. Alternatively, if you are working in a group, please read the “Adding contributors to the repository” section below.

Adding Collaborators to the repository:

--NOTE--

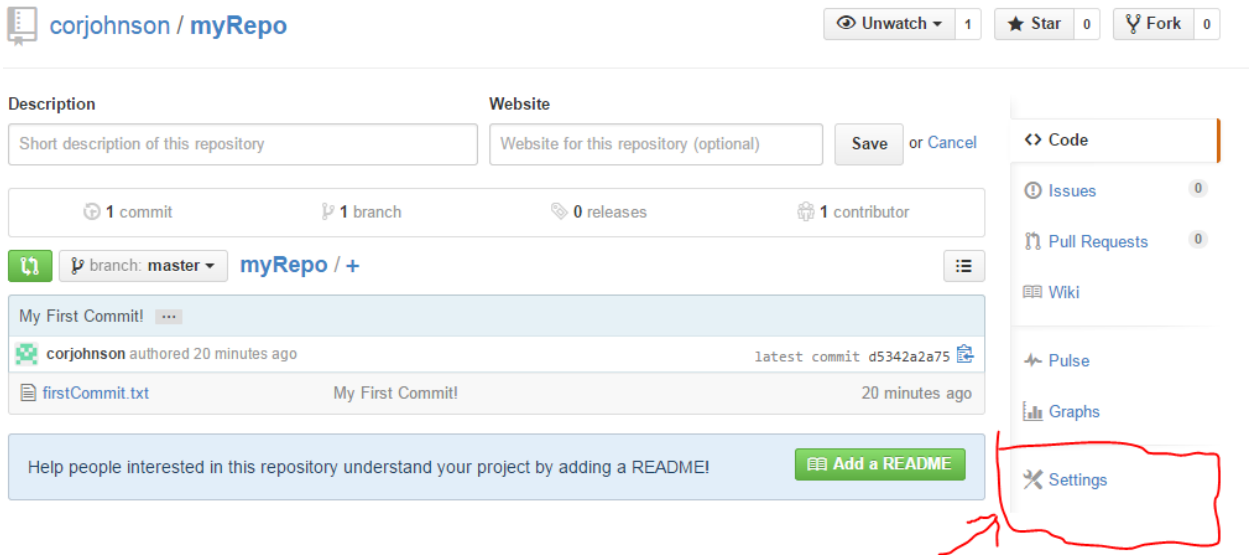
In order to add a collaborator, you must have at least one commit pushed to the repository!

Steps:

1) Go on to the GitHub web site and log in to your account

2) Go to the repository you want to add collaborators to

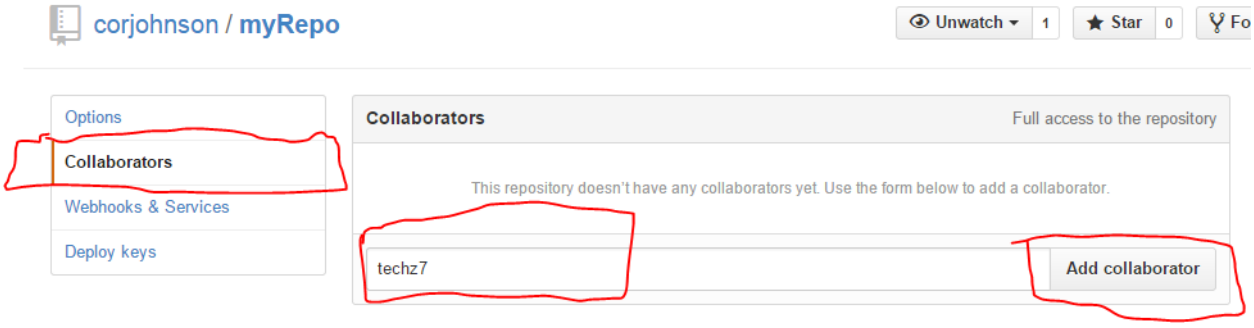
3) In the page, locate the settings button on the right hand side



4) Click the tab “Collaborators”

5) Enter the name of a collaborator you’d like to add

6) Click “add collaborator”

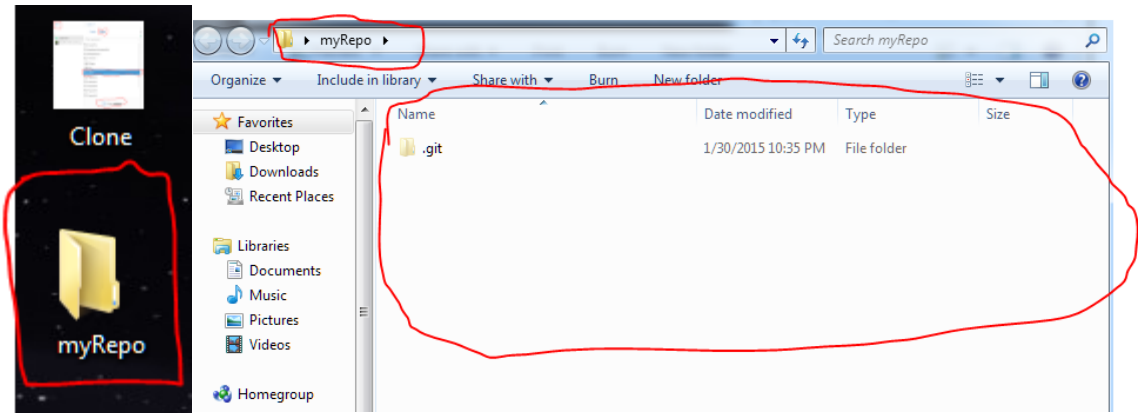


Congratulations you have successfully added members to your repository. They can now clone/commit/push/pull to your repository! See GitHub Procedure for a good, steady workflow!

Committing to a repository:

Steps:

1) Open the folder for your repository in either Explorer (Windows) or Finder (Mac)

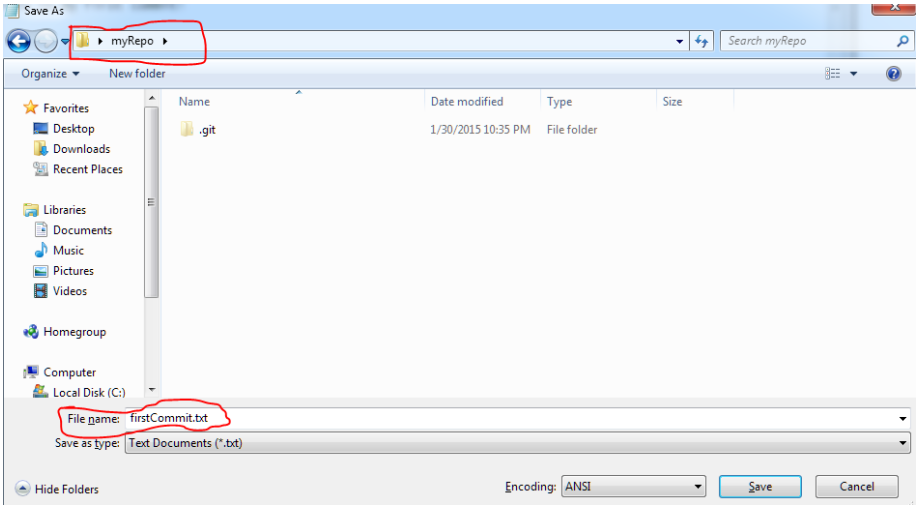


2) Open a text editor such as notepad

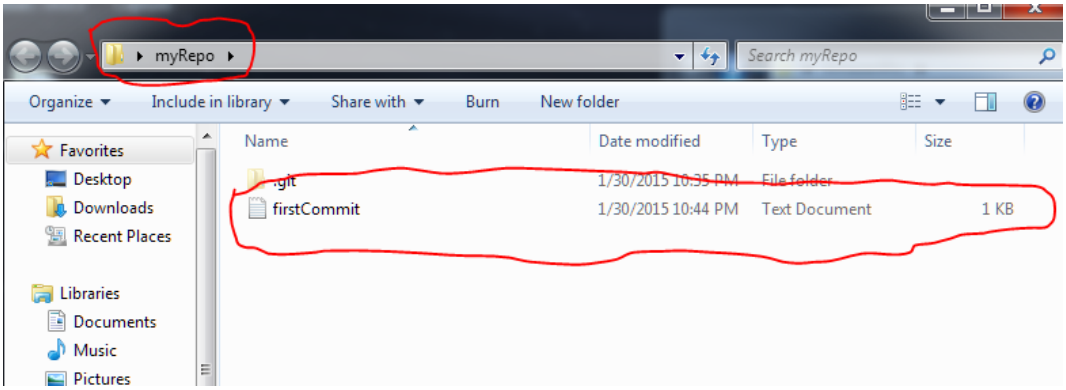
3) Create a new file

4) Type the words “This is my first commit!”

5) Save the file in the repository folder



6) Check to make sure the file appeared in the folder

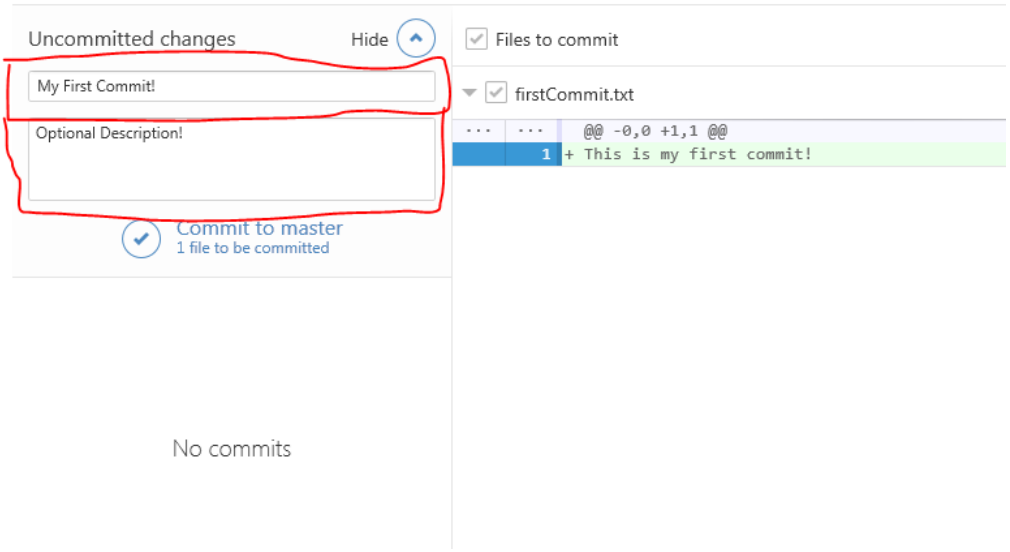


7) Open the GitHub desktop Application

8) Click on the repository you added a file to

9) Enter a Summary

10) (Optional) Enter a description



11) Click the “Commit to master” button.

Congratulations, you have made your first commit! Keep note! Just because you commit something **does NOT** mean it is in GitHub! You MUST push your changes! See “Pushing to a repository” below.

Pushing to a repository:

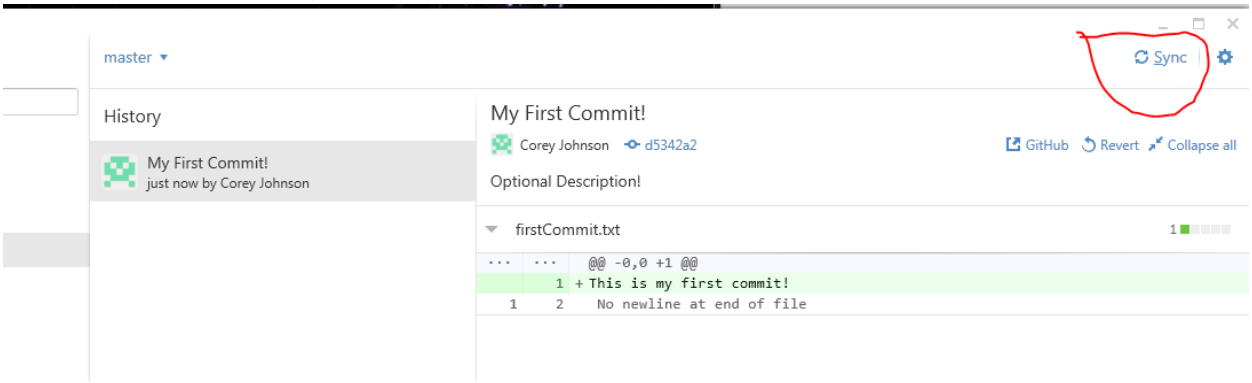
Prerequisites:

You must have something you committed to the repository like in the steps above.

Steps:

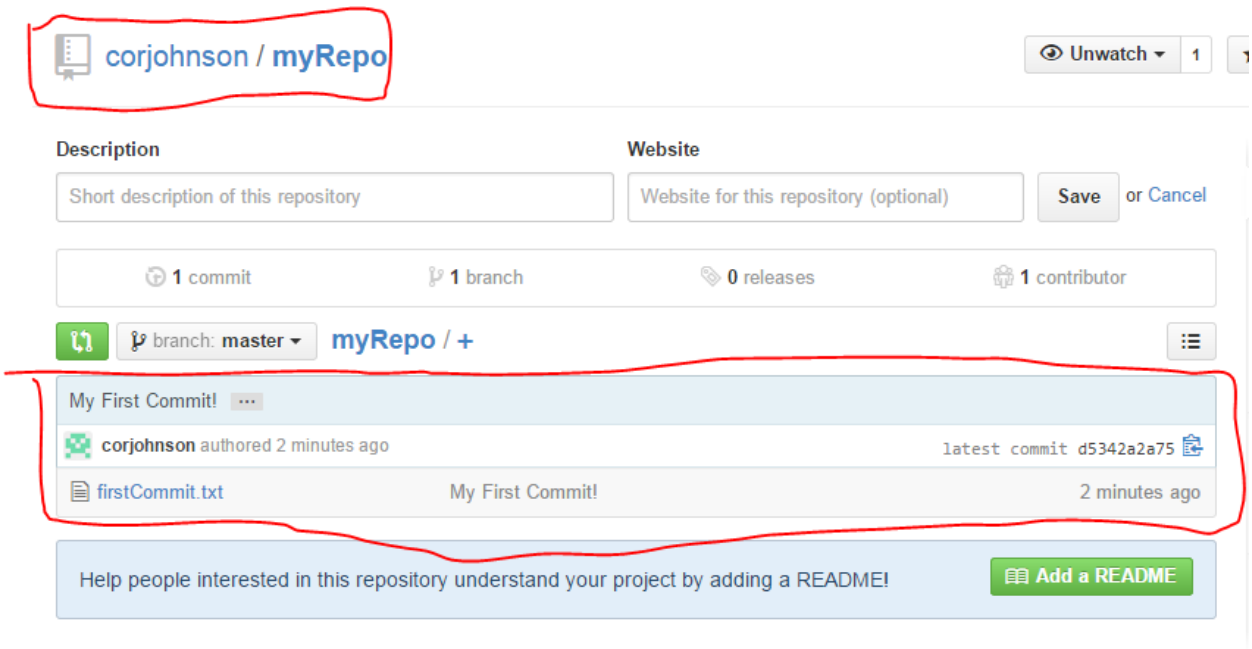
1) Navigate to the top right of the GitHub desktop application

2) Click Sync



3) Open GitHub on a web page, and go to your repository.

4) You should now see your files in the repository!



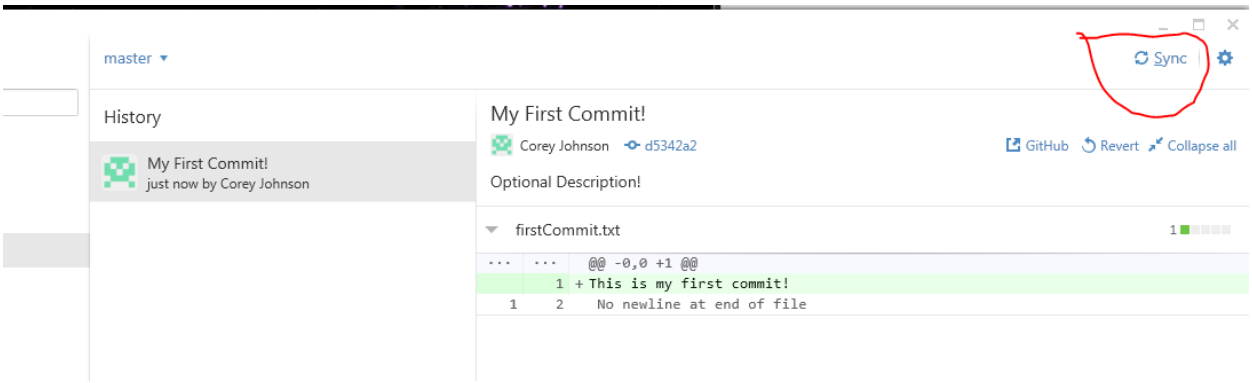
Congratulations, you've pushed the commit! This process works for any commits you may have, but it's best to refer to the GitHub Procedure below!

Pulling from a repository:

Steps:

1) Open the GitHub desktop application

2) Click the "Sync" button



That's pretty much all there is to pulling if there are no conflicts! If there are conflicts, there are ways to resolve them, but those are a case by case situation.

Git/GitHub Procedure:

I don't have pictures for this, so you must read! Feel free to refer above if you forget a term.

Steps:

1) Clone the repository onto your computer if you have not done so already.

2) Pull/Sync the repository **before** you make **ANY** changes!

3) Communicate with your group members EXACTLY what files you will be working on.

- If you end up needing to change a file someone else is working on, let them know.

- The only way to prevent a conflict is communication. Kanban boards are helpful!

4) Every 15 minutes or so, commit what changes you have and push it.

- A good habit to get into is commenting your code before you write it! Write comments on

What you need to do or what something is doing

5) When you are finished working on the project for now, commit one final time, and make sure you push!

This is the basics of the "best practice" procedure I have found. Making mistakes is inevitable, but you can avoid them often when you make sure to communicate. Good luck on your Git endeavors. I will be making another cheat sheet covering some of the topics another day.

Branches, Forking, Pull Requests, Git Bash, Managing Conflicts, Merging Branches