GitHub Training Module

TASKS

Install 3rd Party Software

Create GitHub Account

Fork and Branch Repository

Commit and Push Request

LTLE 610 MODULE 4

CONTRIBUTE CODE TO LANDSANDBOAT GITHUB REPOSITORY

Git, like other version control systems, manages and stores revisions of projects. Although it's mostly used for code, Git could be used to manage any other type of file, such as Word documents or Final Cut projects. Think of it as a filing system for every draft of a document.

The flagship functionality of GitHub is "forking" – copying a repository from one user's account to another. This enables you to take a project that you don't have write access to and modify it under your own account. If you make changes you'd like to share, you can send a notification called a "pull request" to the original owner. That user can then, with a click of a button, merge the changes found in your repo with the original repo.

These three features – fork, pull request and merge – are what make GitHub so powerful.

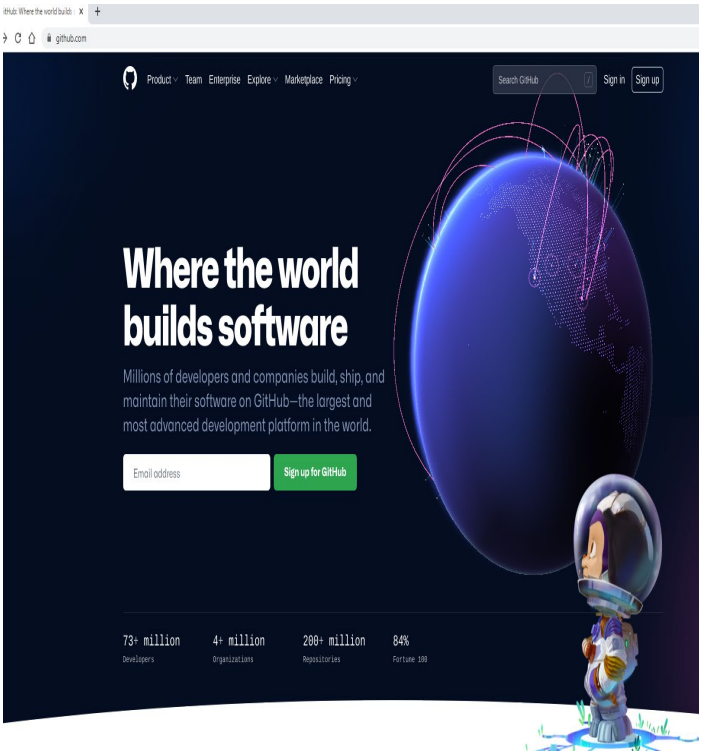


FIGURE 1

INSTALL SOFTWARE

3RD PARTY SOFTWARE

Software must be installed on learners' system to contribute to LSB via GitHub.

This software will take up around 2TB of disk space. Most software is installed with default options, except where noted, in the detailed list.

Once software is installed, learners will be able to move onto creating a GitHub user account.

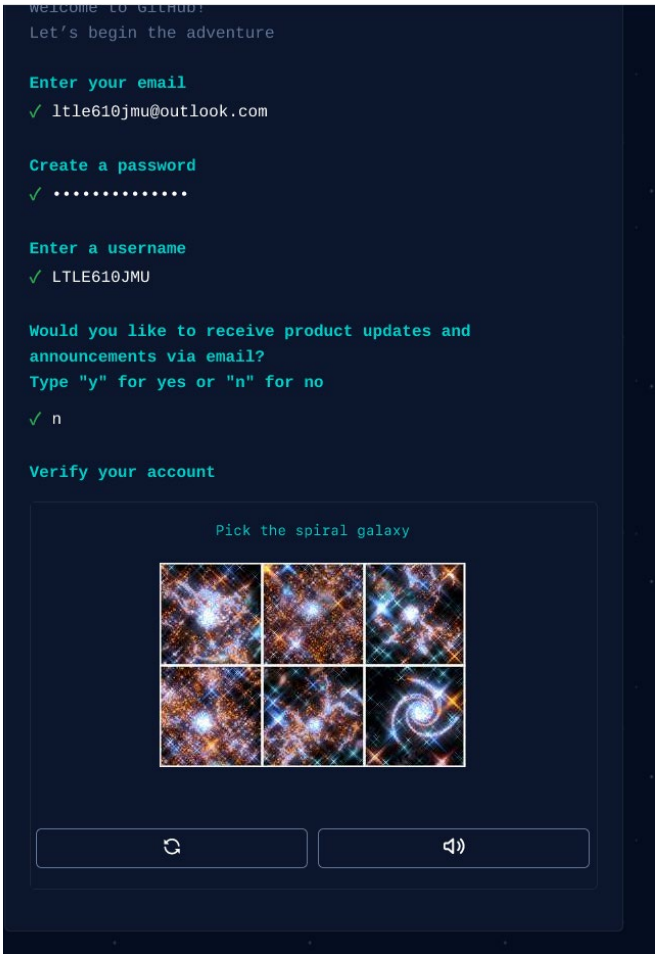
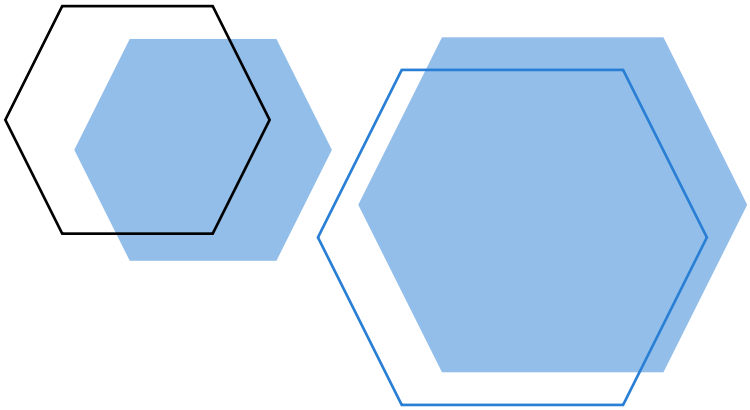


FIGURE 2



CREATE GITHUB ACCOUNT

WWW.GITHUB.COM

Navigate to www.github.com/login and create an account.

Follow the on-screen instructions to complete the registration process. (Figure 2.)

Once complete, you will come to you "landing" page. As shown in Figure 3.

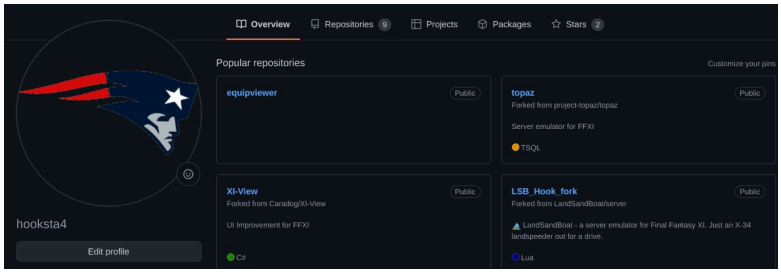


FIGURE 3

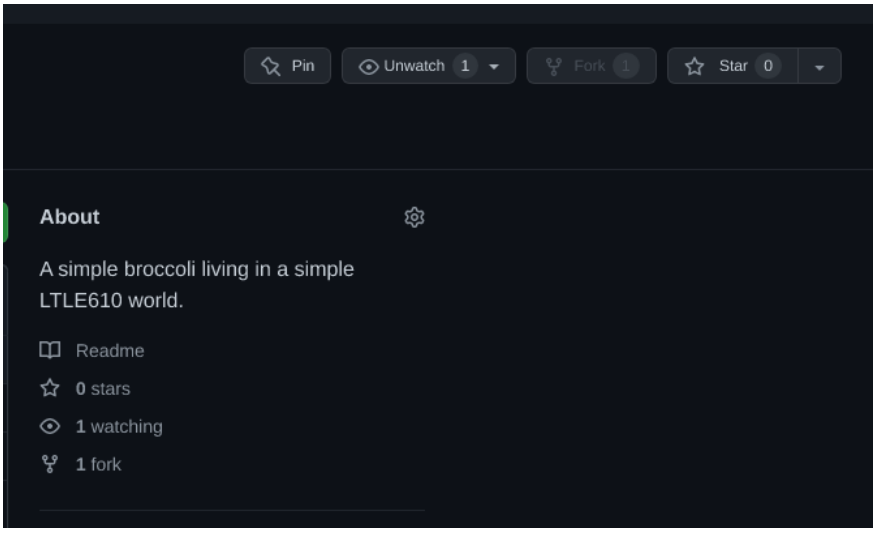


FIGURE 4

FORK AND BRANCH

THE BREAD AND BUTTER OF GITHUB

Before we start contributing to the main LSB project, lets first get some practice in a test repository. Navigate to [hooksta4/refactored-octo-broccoli: A simple broccoli living in a simple LTLE610 world. (github.com)] or search for "hooksta4/refactored-octo-broccoli" and select the link. (Figure 4)

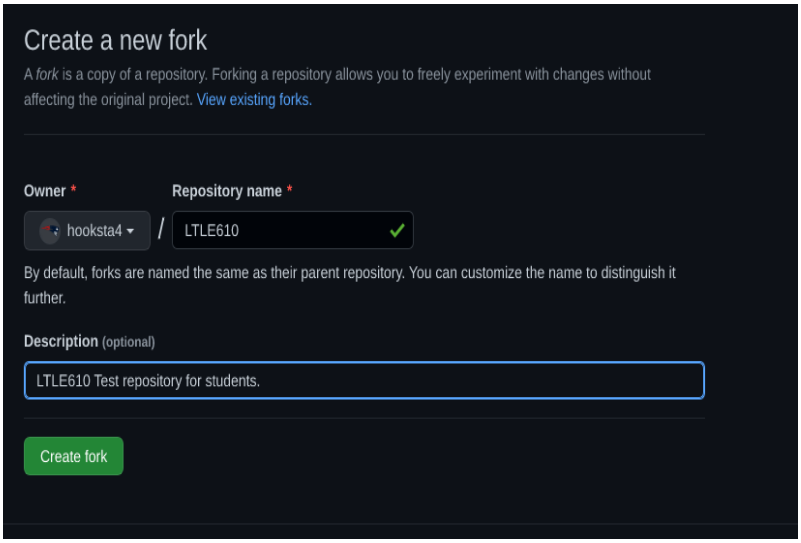


FIGURE 5

This will be our test repository, so don't worry about messing up, we can fix it together! Select the Fork button in the top right corner of your landing page. Name it as shown in Figure 5.

You should now see the following figure 6

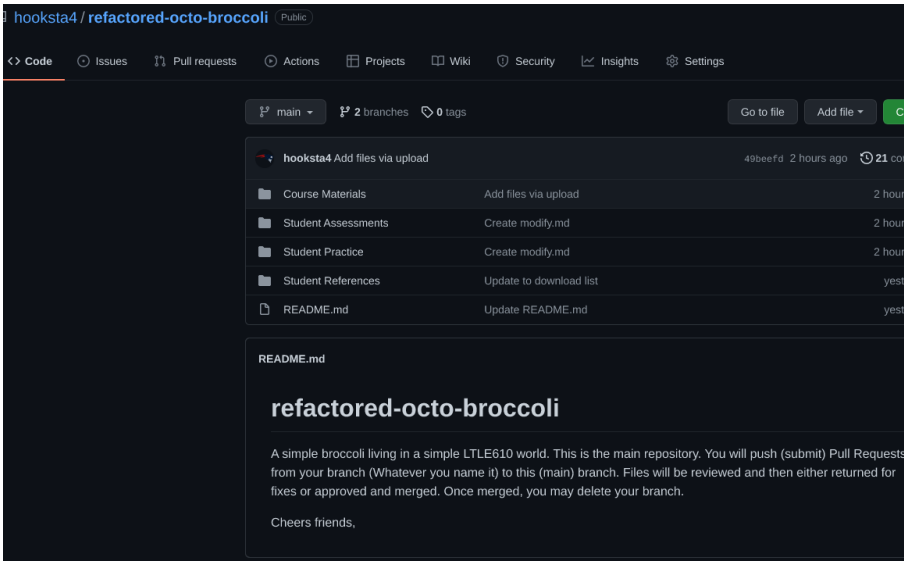


FIGURE 6

From here, you will want to create a new branch as to not make changes to your main branch. When you forked the repository, it is a snapshot in time of the repository. Any changes from anyone else will not reflect until you fetch and merge (see figure X.X discussed later). If you were to make changes to your main branch and then try to fetch/merge, there will be a lot of errors that are difficult to recover from. So, for best practice, anytime you want to start a new "task" or "project contribution" create a new branch and make the changes there. TL&DR; don't mess with your main branch, create a new one! Seriously, it will save you so much time and heartache.

COMMIT AND PUSH REQUEST

COMMIT == SAVE ; PUSH REQUEST == SEND YOUR CHANGES TO GET REVIEWED TO BE MERGED

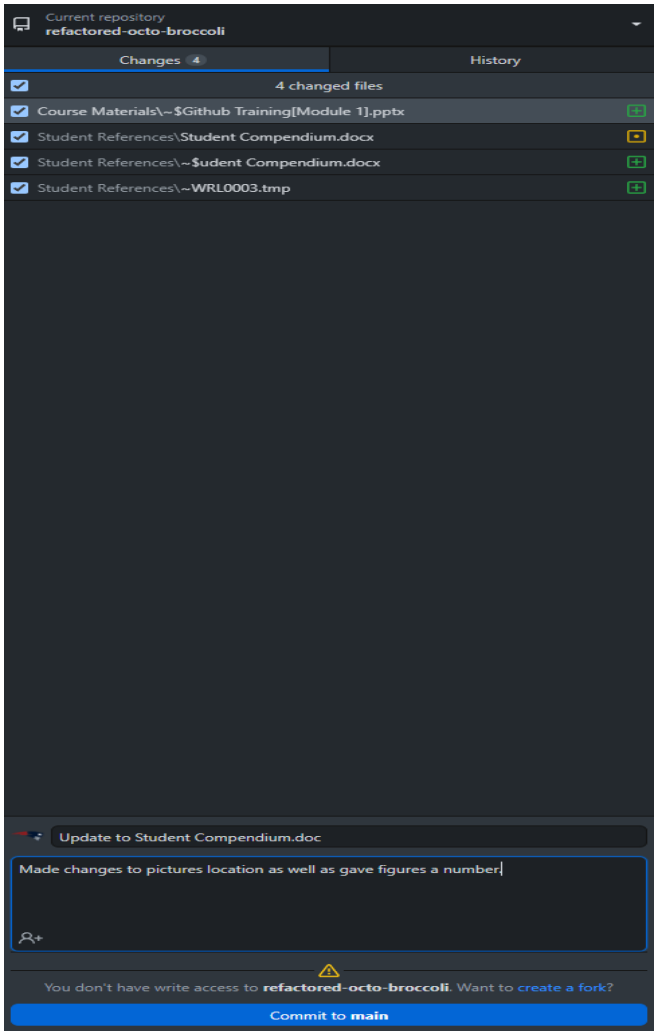


FIGURE 8

Commit and Push Request are the final steps in the journey to submitting your contributions to a project.

Once your code is complete, open GitHub desktop. You will see any changes in the left-hand box as shown in figure 7.

Ensure changes are correct, and enter a title in Summary as well as a description. This is your Commit title, make it something catchy and explanatory. Once ready, click on the Commit button. Figure 8 and Push origin.

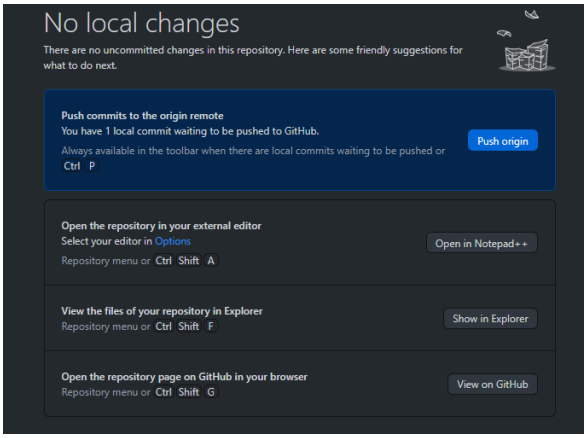


FIGURE 7

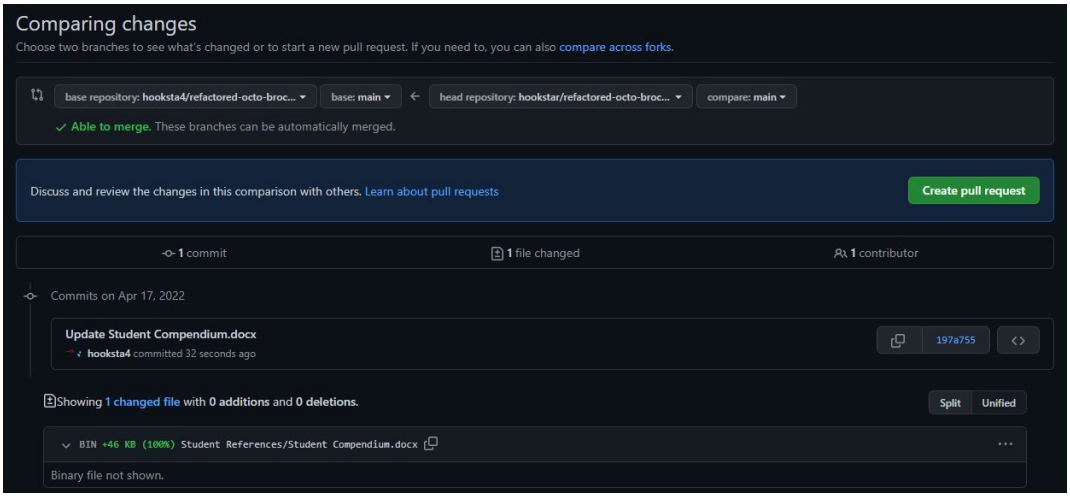


FIGURE 9

At this point the commit was sent to YOUR BRANCH ONLY! In order to get submit it to LSB for merge, navigate to the GitHub website and create a pull request. (Figure 9)

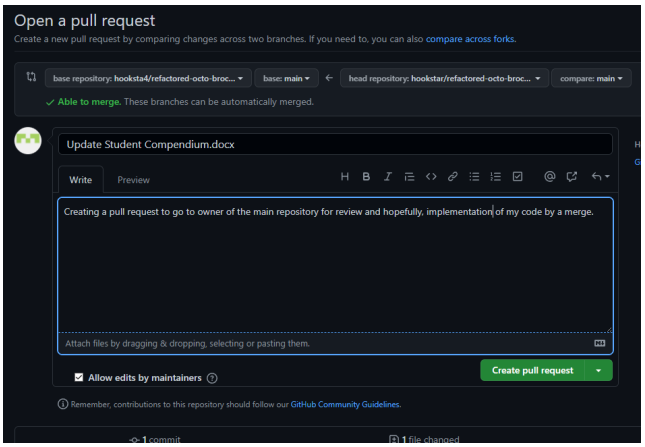


FIGURE 10

Create a new name and further description if so inclined. Select Create Pull Request to submit it to the main repository. (Figure 10)

The repository owner will see Figure 11 next time they log in. If everything looks ok, they will select Merge Pull Request and your code updates will be now in the main repository for all to see. Congratulations!

Once your branch has been successfully merged, you can now delete your branch, if you want to.

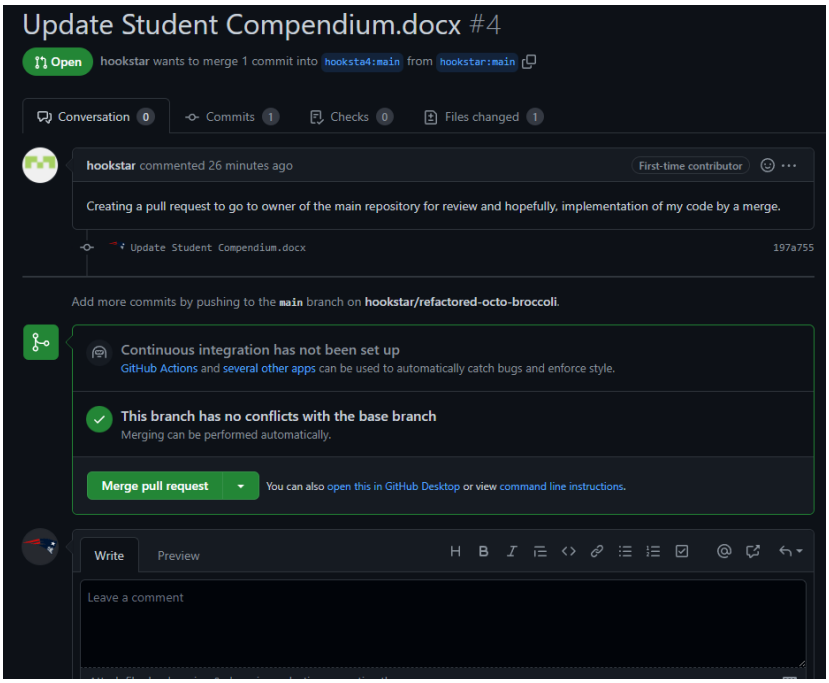


FIGURE 11