GitHub, Codespaces

Chico State Computer Science Camp

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1 Introduction

GitHub is a developer platform that allows developers to create, store, manage, and share their code. It is important in developers' workflow as we are able to use it for version control which can basically be thought of as looking at a Google doc's history section in order to find changes from the past.

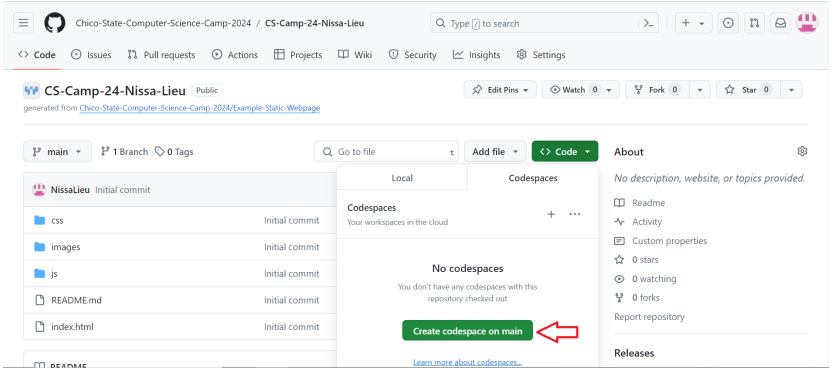
GitHub Codespaces provides users with a secure cloud development environment to be developed on.

2 GitHub Codespaces

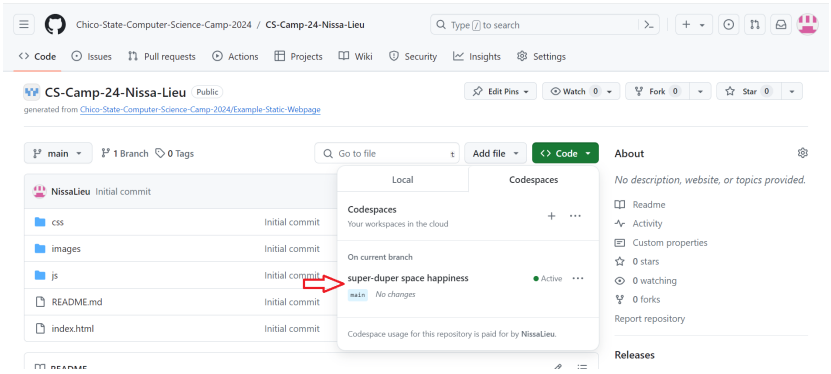
GitHub Codespaces is great! They allow any user to develop in an environment without having to install anything. It is linked to GitHub which allows the user to create, save, and remove files and keep track of a program's versions and configurations (Shows history of program).

2.1 How to get to GitHub Codespaces

First, you want to head over to your repository and find the green button that says "Code". Then you want to click that button and hit Codespaces and "Create codespace on main."



The image above shows us where to set up Codespaces.



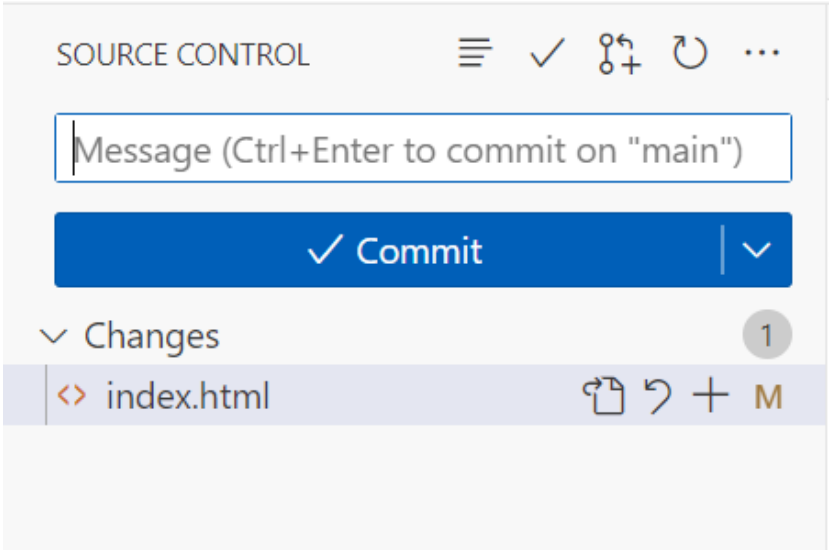
The image above shows us what to click when we already created a Codespace.

3 GitHub

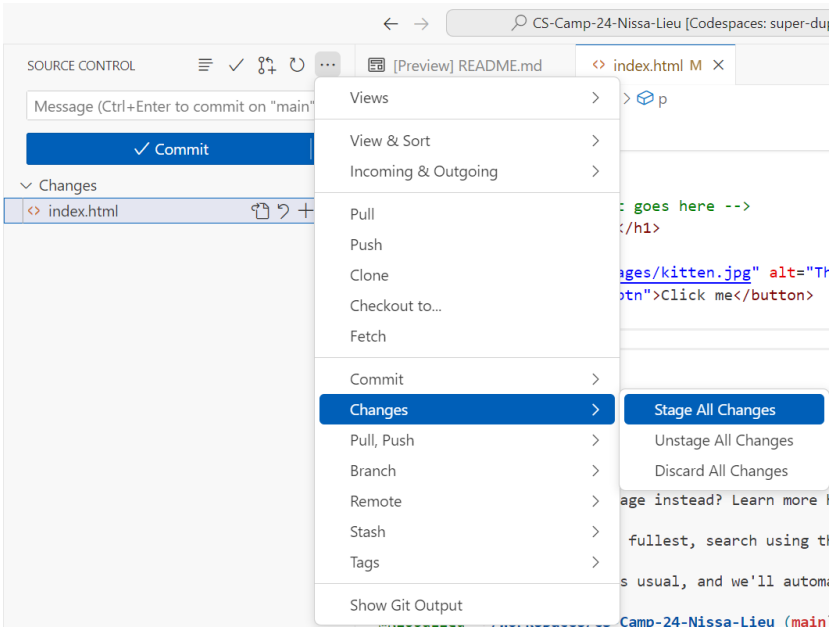
3.1 Staging Changes

Staging Changes also known as the process of adding. You are able to make changes which will be shown within GitHub. If you were to accidentally submit broken code, you are able to rewind the code back to when you had working code.

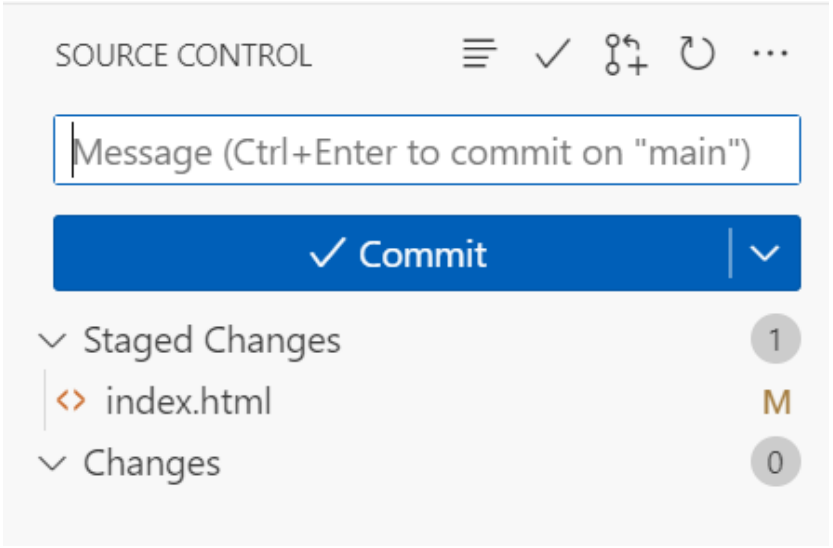
You will first make changes to your code which will move the file that you made changes into the Changes tab on your Source Control panel.



The image above shows us what the Source Control Panel looks like after a user makes a change in a file.



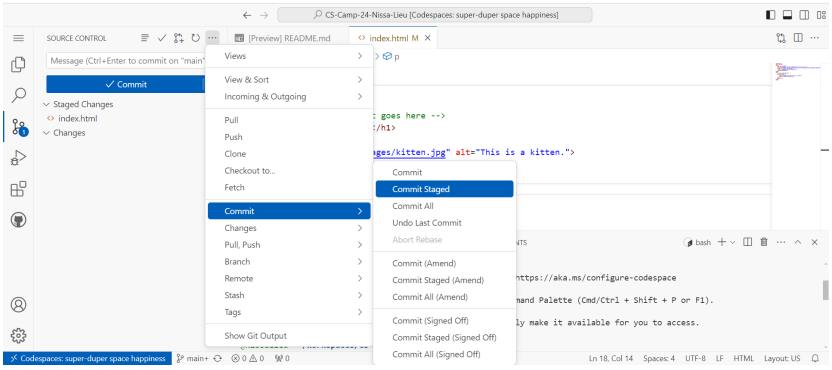
The image above shows us where to stage all changes.



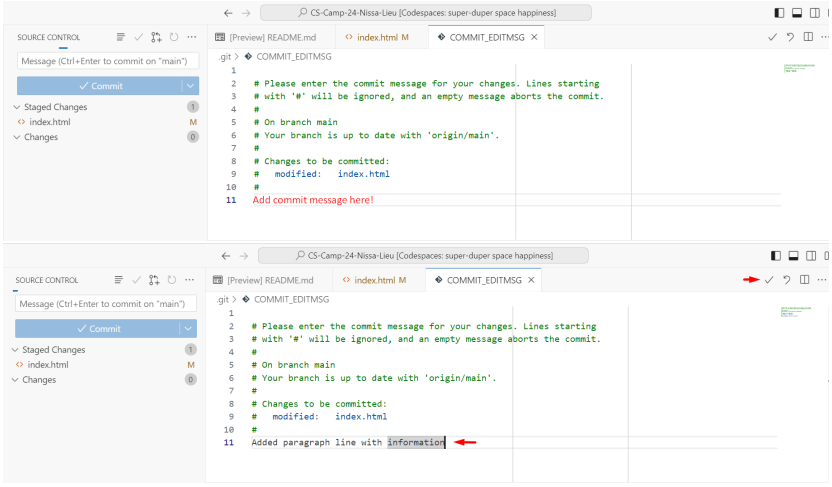
The image above shows us what happens to our Source Control Panel when using the stage all changes button. A way you can think of staging changes is you writing to make something change and sending it off to a person to review and get a stamp of approval.

3.2 Committing with Message

Committing the Message also known as the process of committing. You are committing to your changes and providing a message that generally describes your changes (i.e. Fixed issue with login interface)



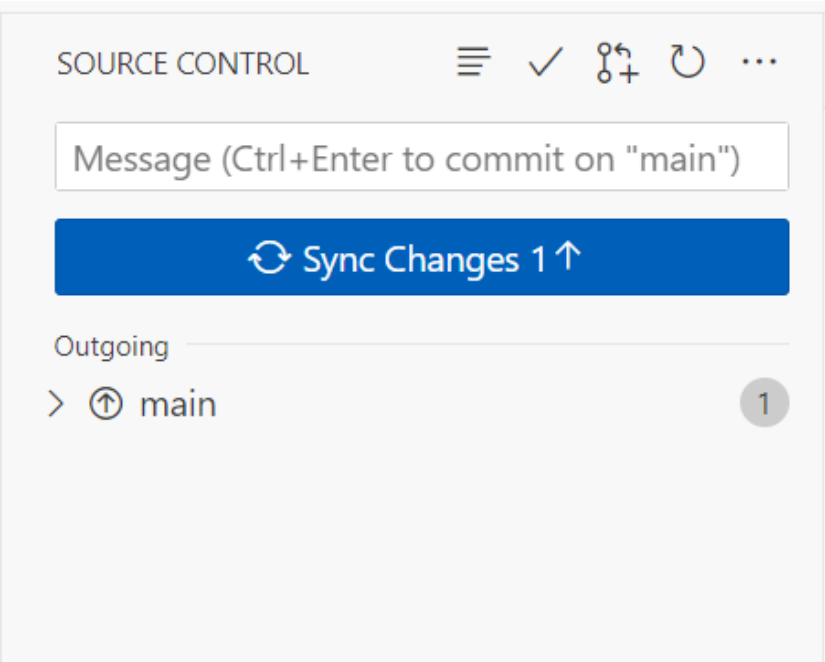
The image above shows us where to find the commit staged changes button. The way you can think of committing staged changes is reviewing, giving it a stamp of approval, and mailing it off to the next person to finalize the submission. A way to think of the commit message is the "reason" for the approval.



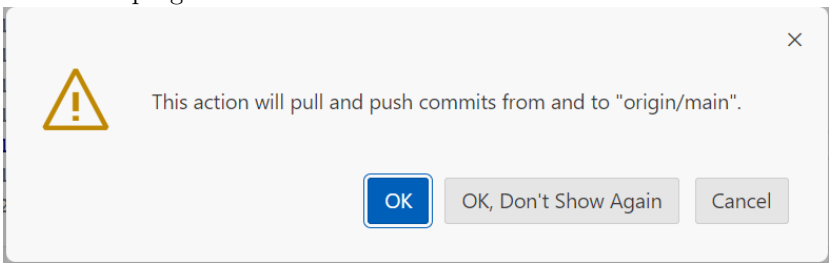
The two images above shows you where to add your comments and where to approve your comment.

3.3 Syncing Changes

Syncing Changes also known as the process of pushing. You are completely syncing all your changes to the main code.



In the image above, you will find the button on the source control panel to the left of the program.



In the image above, after syncing the changes, you will end up with a request which will pull your main branch and push your changes into the branch. You can think of this as bringing the main branch and your current branch together and merging them.