

# Intro to GitHub

## What is Git?

Git is a free and open-source distributed version control system (DVCS) designed to manage and track changes in source code and other files during development.

- A.K.A... it's really good for coding collaboratively & simultaneously— think of it like Google Drive/Google Docs for code.

## GitHub.com vs. GitHub Desktop

GitHub.com hosts your website server, while the GitHub Desktop app allows you to work on files, push, and pull a lot more easily.

## Vocabulary:

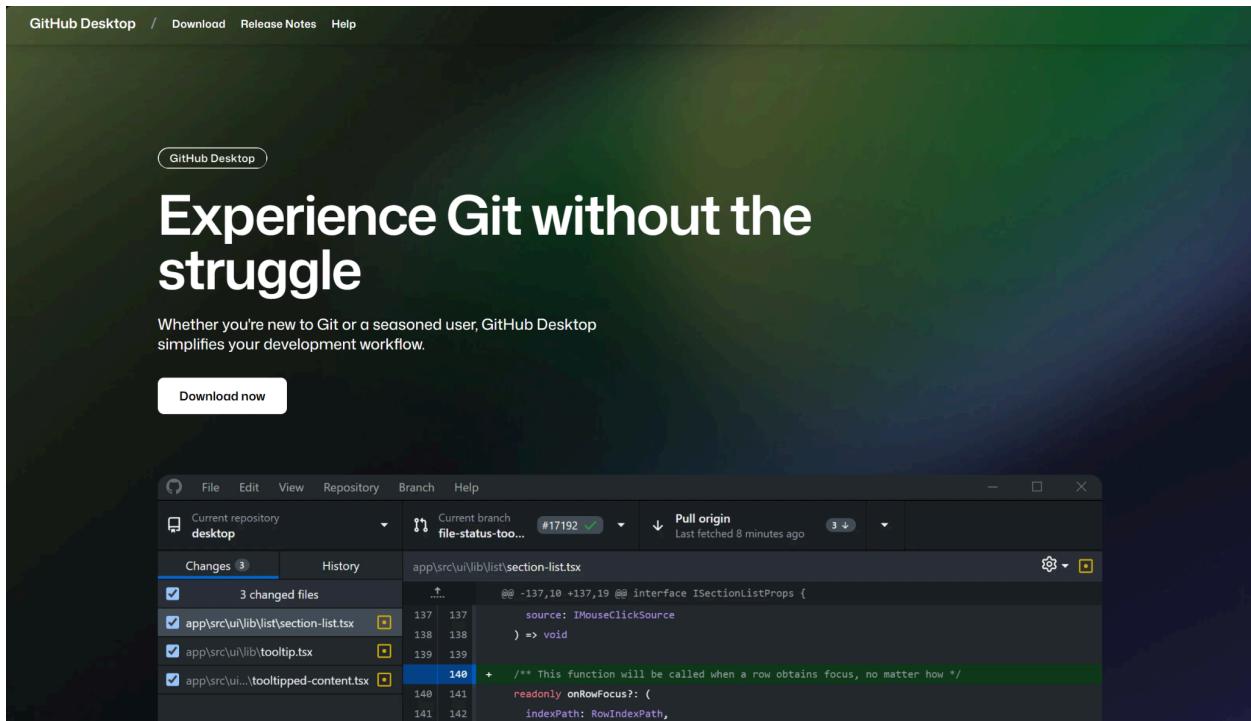
- **Repository** (repo): the location where all your files are stored for a project (think of it like a Google Drive folder)
- **Branch**: a contained line of development within the repository, called **main**. Don't worry too much about what a branch actually is, because you won't need to create multiple branches in your project.
- **Clone**: one person will create the repository on GitHub.com (the server), and everyone else will have to clone it to have it available on their device.
- **Commit**: Save your changes on your clone of the repository.
- **Push**: Send out your changes to the group (the server).
- **Fetch origin**: Check for any new changes from the server.
- **Pull**: Retrieve other group members' changes and add them to your clone.

### ALWAYS PULL BEFORE YOU PUSH!

- **Merge**: Combine your changes with your group members' changes. Merge conflicts will emerge if you and a group member worked on the same line of code with different results— usually Git will handle these, but sometimes you will have to resolve them manually.

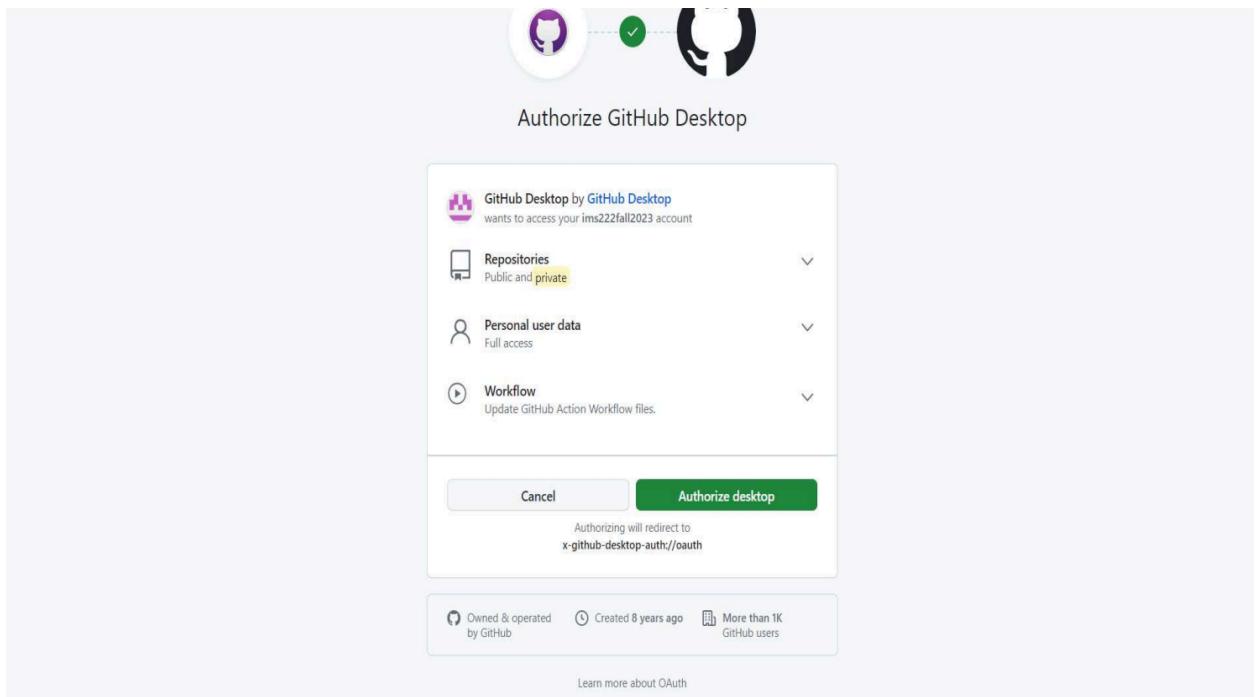
## Download Instructions

1. Download GitHub Desktop at: <https://github.com/apps/desktop>



2. Install it. When installed, the app will ask you to sign into your GitHub account. If you are new to GitHub, create your account. (Students get free GitHub Pro if you use your student email address!)

### 3. Click Authorize GitHub Desktop button



### 4. Configure Git and click Finish

#### Configure Git

This is used to identify the commits you create. Anyone will be able to see this information if you publish commits.

- Use my GitHub account name and email address
- Configure manually

Name

ims222fall2023

Email

ims222fall2023@gmail.com

**Finish**

**Cancel**

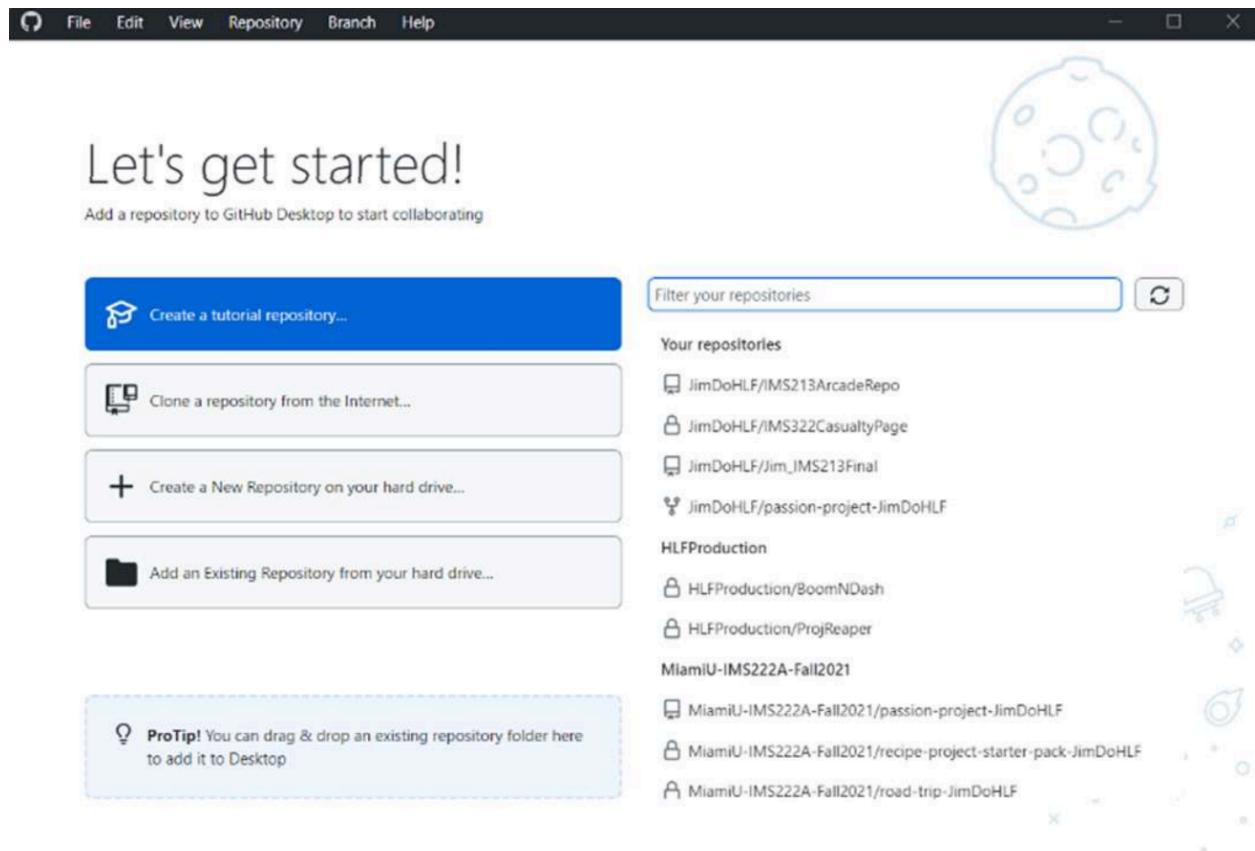
Example commit

Fix all the things

 ims222fall2023 • 30 minutes ago



## 5. First look at the Desktop app (without active repository)

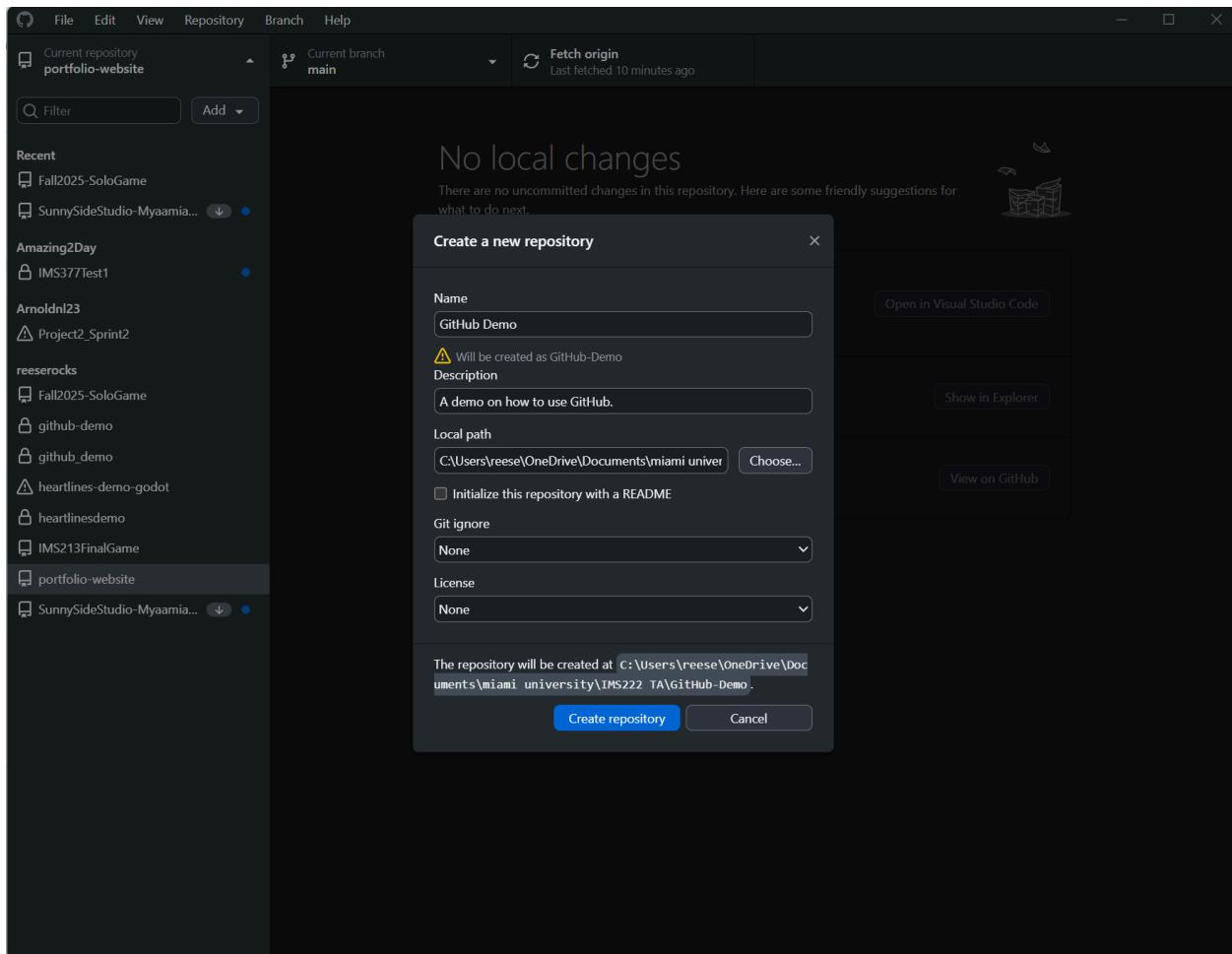


## Set Up Your Group's Repository

1. Get in your groups! Only *one* person will need to create the repository (everyone else will clone it), so decide who that is going to be.

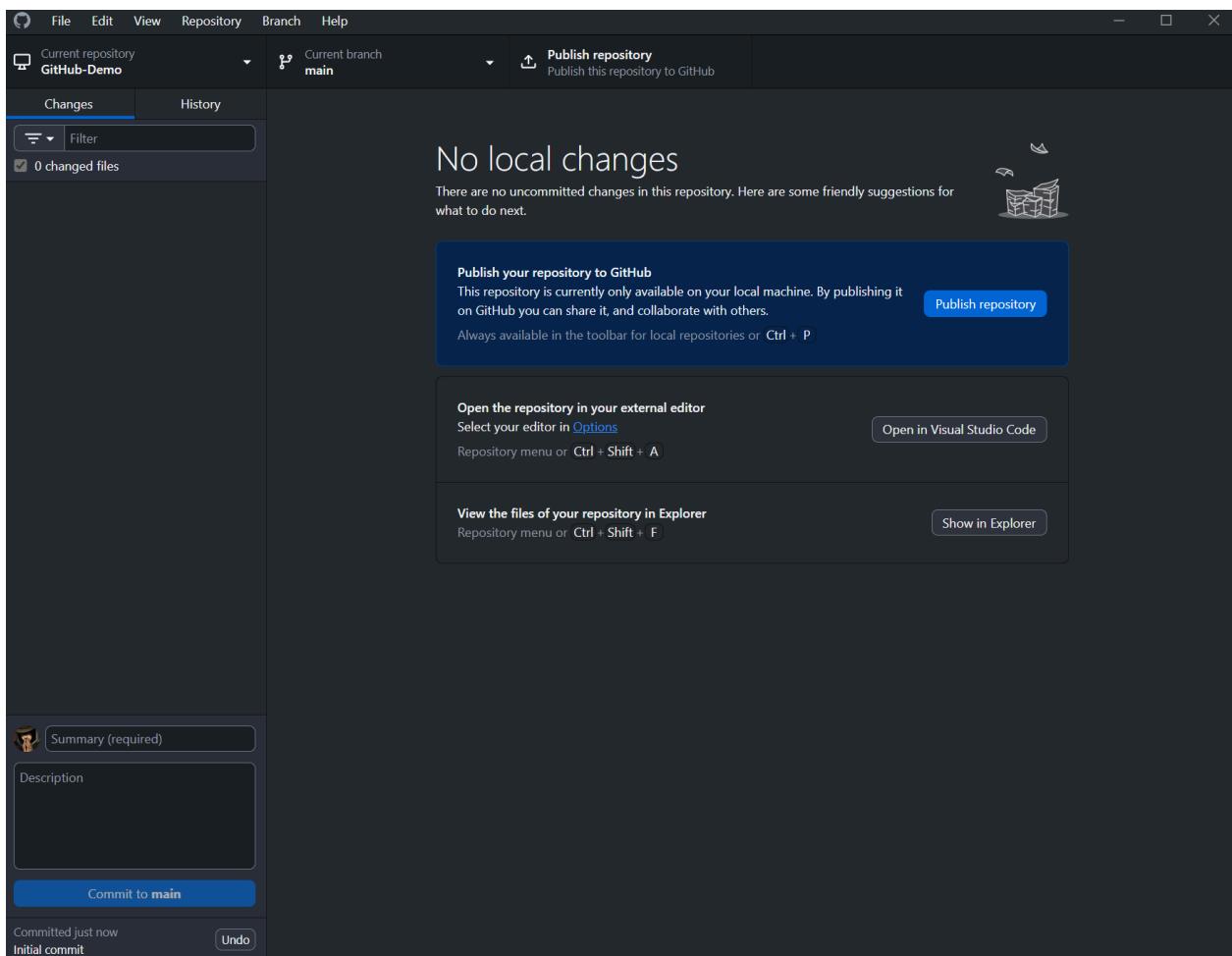
Instructions for ONE person creating the repository:

2. Click the “Create a New Repository on your hard drive” and fill out the fields.



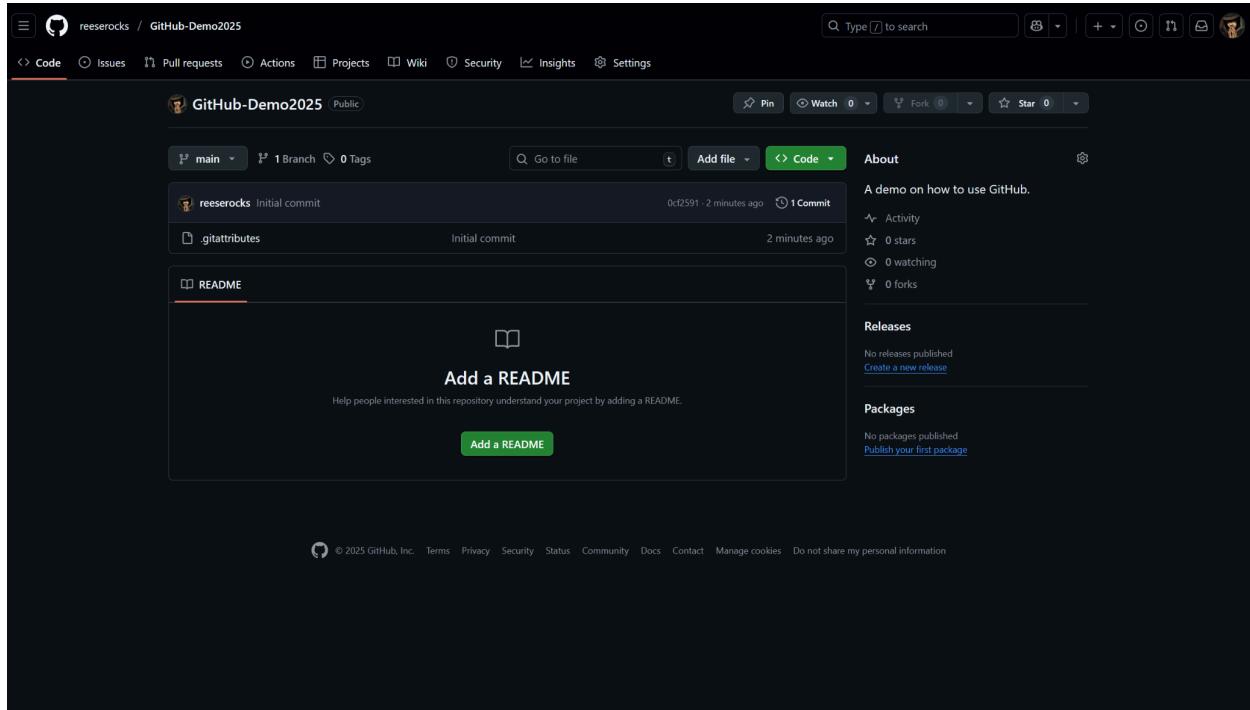
\*Be mindful of the local path. Make sure you know where this repository is within your computer's File Explorer.

3. Click Publish Repository. Uncheck “keep Private” on the next pop-up screen.

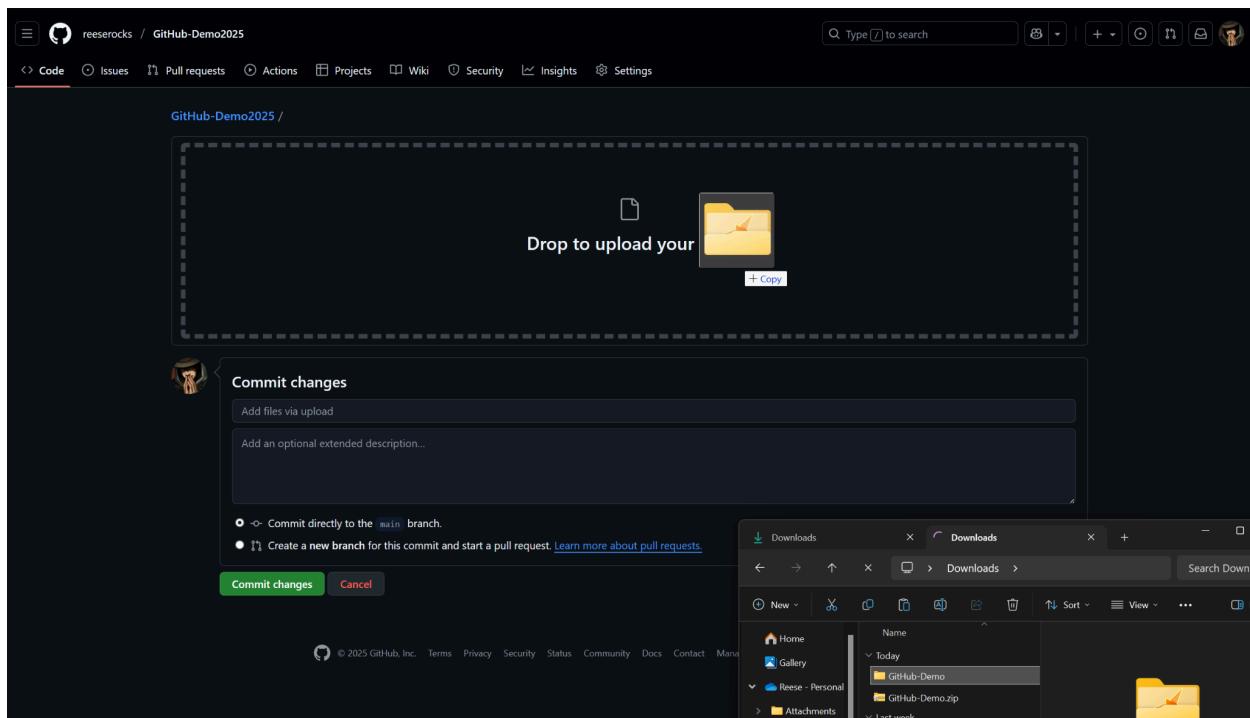


4. Download GitHubDemo.zip from Canvas and unzip it.

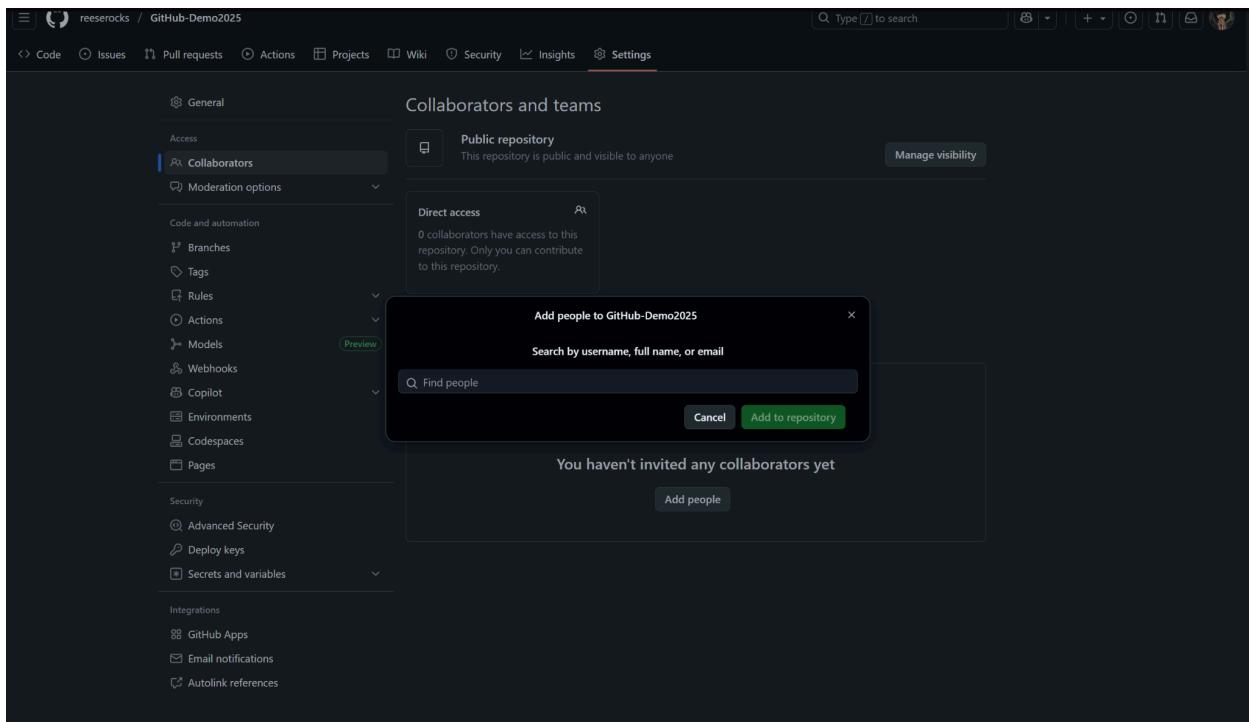
5. Now, go to <https://github.com>, open up your repositories, and find the repository you just created.



6. Click “Add file” > “Upload Files” on the github.com repository and add the GitHubDemo folder. Allow these to finish uploading.

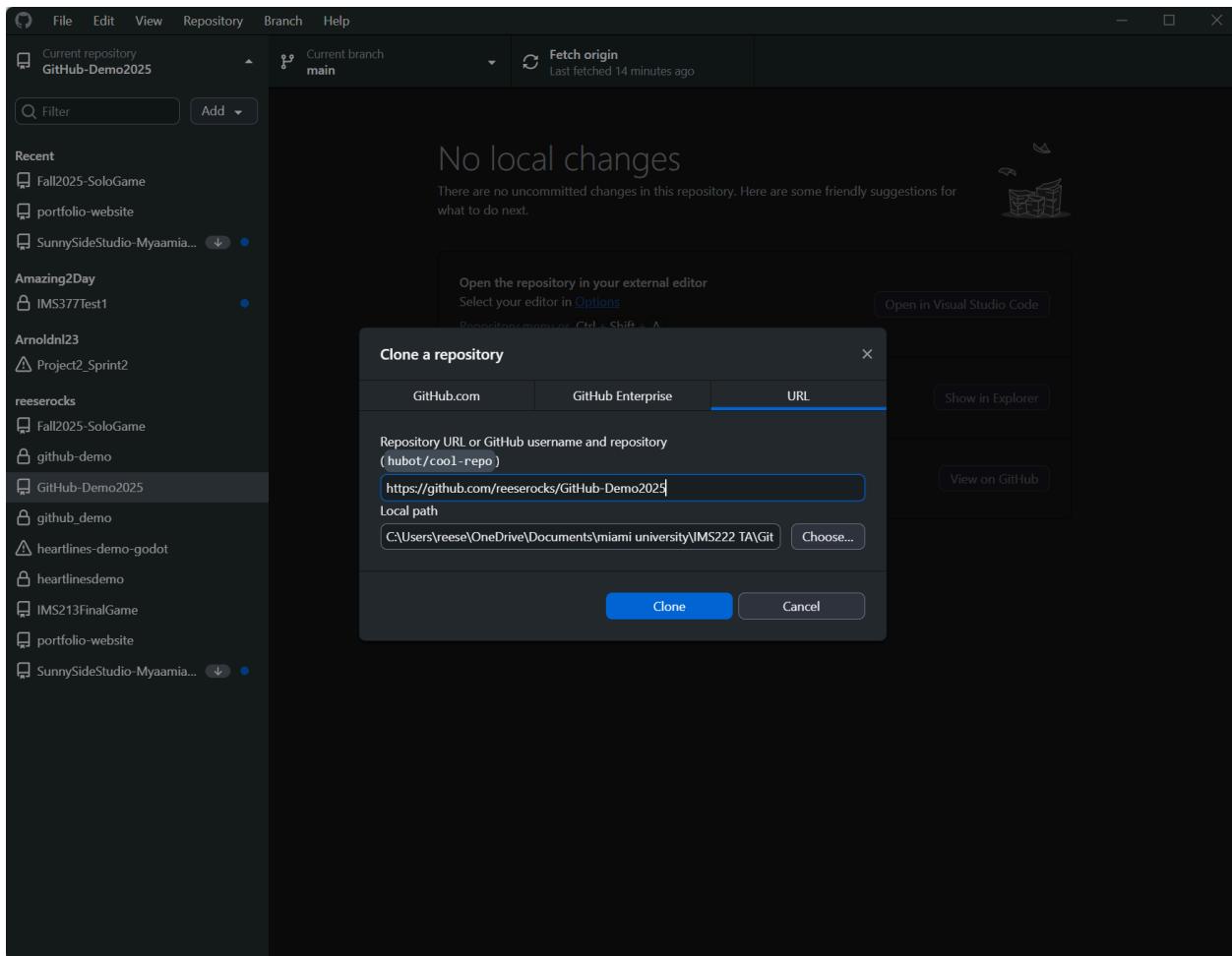


7. Now, you're going to invite your team members so that they can clone this repository. Go to Settings (on the top bar) > Collaborators > (enter your password) > Manage Access > Add people. You add people to GitHub repositories by entering their usernames, so allow your group members to type in their usernames now.



**Instructions for everyone else CLONING the repository:**

8. With GitHub Desktop open, everyone else should click “Clone a Repository from the Internet.” This is going to add the repository to your individual devices. Now that you’ve been added as a collaborator, you can find it from a list of your repositories, or you can add it by URL.



\*Again, be mindful of the local path so that you know where the repository will be located on your computer.

9. Make sure to fetch origin and pull any changes, if needed, to ensure all the GitHubDemo files are on your computer now.

## Group Hands-On Activity

1. Everyone, open up Phoenix Code on your computers and open your repository folder. GitHub Desktop is now working in the background to track any changes you make to these files. Unlike Google Docs, you will not see other people's changes as they're working on the files— you will have to pull in order to see them.

2. Now, everyone will split up and create content underneath the commented headings, including:

- index.html:
  - [Article 1](#)
  - [Article 2](#)
  - [List](#)
- ingredients.html
  - [Table](#)
  - [Blurb & Image](#)

If anyone else in the group needs something to do, work with the remaining members to modify css elements, such as text colors, background colors, etc. Be mindful not to work on the same exact lines of code in order to avoid any bad merge conflicts.

<!--add article 1-->

```
<article>
    <figure>
        
        <figcaption>Pizza</figcaption>
    </figure>
    <h2>Pizza</h2>
    <p>Pizza usually comes with cheese, sauce, crust, and
    toppings.</p>
</article>
```

<!--add article 2-->

```
<article>
```

```
<figure>
    
    <figcaption>Pasta</figcaption>
</figure>
<h2>Pasta</h2>
<p>A delicious dish you can make a thousand ways, usually with red or white sauce.</p>
</article>
```

<!--add list-->

```
<ul>
    <li>Buffalo Chicken Dip</li>
    <li>Teriyaki Chicken</li>
    <li>BBQ Braised Short Ribs</li>
    <li>Shrimp Scampi</li>
</ul>
```

<!--add table-->

```
<table>
    <tr>
        <td>Pizza dough</td>
        <td>Tomato sauce</td>
        <td>Mozzarella</td>
        <td>Olive oil</td>
        <td>Fresh basil</td>
    </tr>
    <tr>
        <td>Spaghetti</td>
        <td>Parmesan</td>
        <td>Garlic</td>
        <td>Crushed tomatoes</td>
        <td>Ground beef</td>
    </tr>
    <tr>
        <td>Shrimp</td>
        <td>Butter</td>
        <td>White wine</td>
        <td>Lemon juice</td>
        <td>Parsley</td>
    </tr>
</table>
```

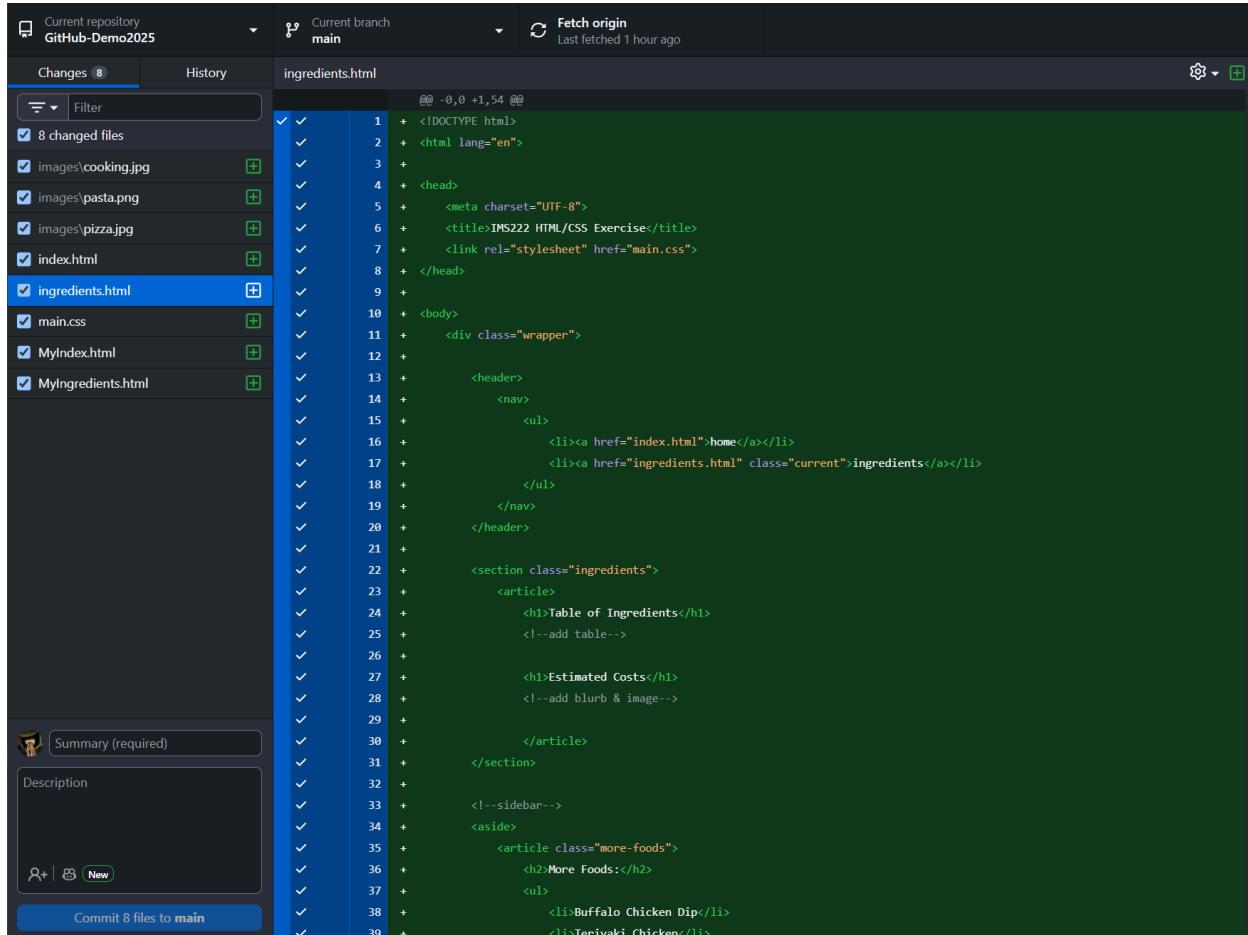
```
</tr>
<tr>
    <td>Chicken breast</td>
    <td>Hot sauce</td>
    <td>Ranch dressing</td>
    <td>Cream cheese</td>
    <td>Cheddar cheese</td>
</tr>
<tr>
    <td>Chicken thighs</td>
    <td>Soy sauce</td>
    <td>Mirin</td>
    <td>Brown sugar</td>
    <td>Ginger</td>
</tr>
<tr>
    <td>Beef short ribs</td>
    <td>Red wine</td>
    <td>Beef broth</td>
    <td>Carrots</td>
    <td>Onions</td>
</tr>
<tr>
    <td>Celery</td>
    <td>Green onions</td>
    <td>Flour</td>
    <td>Salt</td>
    <td>Black pepper</td>
</tr>
<tr>
    <td>Bay leaves</td>
    <td>Garlic powder</td>
    <td>Oregano</td>
    <td>Chili flakes</td>
    <td>Milk</td>
</tr>
</table>
```

```
<!--add blurb & image-->
```

```
<p>Estimated costs for each dish vary by ingredients and portion size. Pizza and buffalo chicken dip are among the most affordable, costing around $10–$15. Pasta dishes with meat and cheese range from $12–$18, while teriyaki chicken averages $12–$16. Shrimp scampi is slightly higher due to seafood, typically $18–$25. Braised short ribs are the most expensive, at around $25–$35, largely due to the meat and wine. Overall, these meals offer a good mix of flavor and cost for home cooking.</p>

```

3. Once you are completely done coding your individual section, open GitHub Desktop. You will be able to see the change history now:

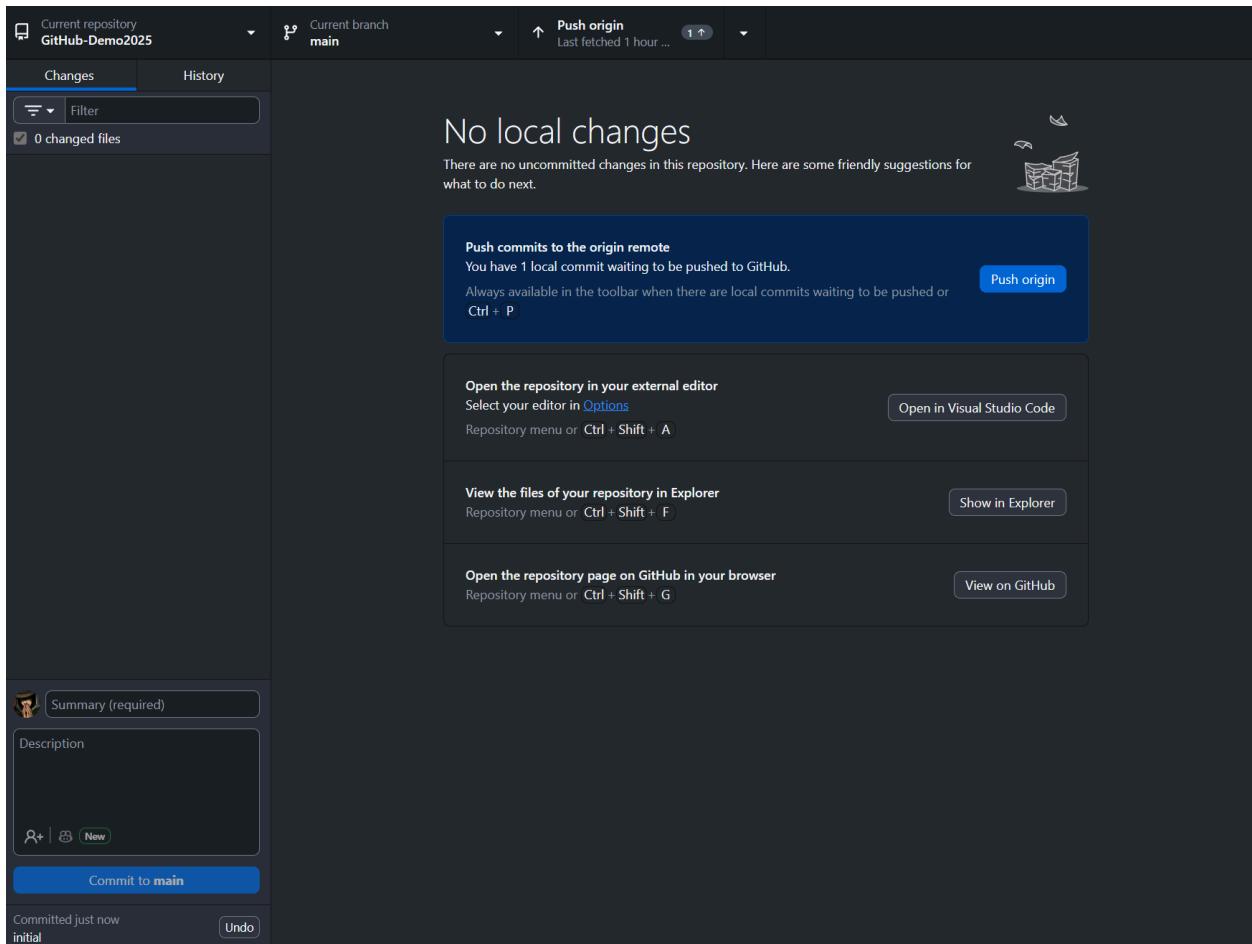


The screenshot shows the GitHub Desktop application interface. The top navigation bar includes 'Current repository' set to 'GitHub-Demo2025', 'Current branch' set to 'main', and 'Fetch origin' status. The main area displays a list of changes for the file 'ingredients.html'. The changes list shows 8 changed files, with 'ingredients.html' being the selected file. The commit message in the bottom right corner reads: '@@ -0,0 +1,54 @@', followed by the code content. The code includes the HTML structure for the page, with a note '!--add blurb & image-->' and a note '!--sidebars-->'. The commit summary field is empty, and the commit button at the bottom says 'Commit 8 files to main'.

```
@@ -0,0 +1,54 @@
1 + <!DOCTYPE html>
2 + <html lang="en">
3 +
4 +   <head>
5 +     <meta charset="UTF-8">
6 +     <title>IMS222 HTML/CSS Exercise</title>
7 +     <link rel="stylesheet" href="main.css">
8 +   </head>
9 +
10 + <body>
11 +   <div class="wrapper">
12 +
13 +     <header>
14 +       <nav>
15 +         <ul>
16 +           <li><a href="index.html">home</a></li>
17 +           <li><a href="ingredients.html" class="current">ingredients</a></li>
18 +         </ul>
19 +       </nav>
20 +     </header>
21 +
22 +     <section class="ingredients">
23 +       <article>
24 +         <h1>Table of Ingredients</h1>
25 +         <!--add table-->
26 +
27 +         <h2>Estimated Costs</h2>
28 +         <!--add blurb & image-->
29 +
30 +       </article>
31 +     </section>
32 +
33 +     <!--sidebar-->
34 +     <aside>
35 +       <article class="more-foods">
36 +         <h2>More Foods:</h2>
37 +         <ul>
38 +           <li>Buffalo Chicken Dip</li>
39 +           <li>Teriyaki Chicken</li>
```

Make sure to fetch origin and pull any changes. Then, add a summary (i.e., updated ingredients.html) and commit files to main.

#### 4. Once your files finish committing, it will ask you to push. Click “Push origin.”



4. When you're done, and once everyone has pushed their changes, your pages should look like this:

home ingredients

### Classic Dinner Dishes

	<b>Pizza</b> Pizza usually comes with cheese, sauce, crust, and toppings.	<b>More Foods:</b> <a href="#">Buffalo Chicken Dip</a> <a href="#">Teriyaki Chicken</a> <a href="#">BBQ Braised Short Ribs</a> <a href="#">Shrimp Scampi</a>
	<b>Pasta</b> A delicious dish you can make a thousand ways, usually with red or white sauce.	<b>Contact</b> Food Group Inc. 105 Tallawanda Rd Oxford, OH

home ingredients

### Table of Ingredients

Pizza dough	Tomato sauce	Mozzarella	Olive oil	Fresh basil
Spaghetti	Parmesan	Garlic	Crushed tomatoes	Ground beef
Shrimp	Butter	White wine	Lemon juice	Parsley
Chicken breast	Hot sauce	Ranch dressing	Cream cheese	Cheddar cheese
Chicken thighs	Soy sauce	Mirin	Brown sugar	Ginger
Beef short ribs	Red wine	Beef broth	Carrots	Onions
Celery	Green onions	Flour	Salt	Black pepper
Bay leaves	Garlic powder	Oregano	Chili flakes	Milk

### Estimated Costs

Estimated costs for each dish vary by ingredients and portion size. Pizza and buffalo chicken dip are among the most affordable, costing around \$10–\$15. Pasta dishes with meat and cheese range from \$12–\$18, while teriyaki chicken averages \$12–\$16. Shrimp scampi is slightly higher due to seafood, typically \$18–\$25. Braised short ribs are the most expensive, at around \$25–\$35, largely due to the meat and wine. Overall, these meals offer a good mix of flavor and cost for home cooking.


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**More Foods:**  
[Buffalo Chicken Dip](#)  
[Teriyaki Chicken](#)  
[BBQ Braised Short Ribs](#)  
[Shrimp Scampi](#)

### Contact

Food Group Inc.  
105 Tallawanda Rd  
Oxford, OH

and your GitHub repository should include all your files:

The screenshot shows a GitHub repository page for 'reeserocks/GitHub-Demo2025'. The repository is public and contains 2 commits. The file list includes 'images', '.gitattributes', 'MyIndex.html', 'MyIngredients.html', 'index.html', 'ingredients.html', and 'main.css'. A 'README' section is present but empty. The repository has 0 stars, 0 forks, and 0 watching. It also lists suggested workflows for Jekyll using Docker.

\*If you need the completed code, check out my GitHub repo [here](#).

Good work! Now you know how to use GitHub Desktop :)