

Lab: GitHub Sign Up and Create Repo

Estimated time: 30 minutes

In this lab, you will get started with GitHub by creating a GitHub account and creating a new repository. You will then add a file to the repository using the GitHub web interface.

Objectives

After completing this lab, you will be able to:

1. Describe GitHub
2. Create a GitHub account
3. Add a project/repository
4. Create and edit a file
5. Upload and commit a file

GitHub overview

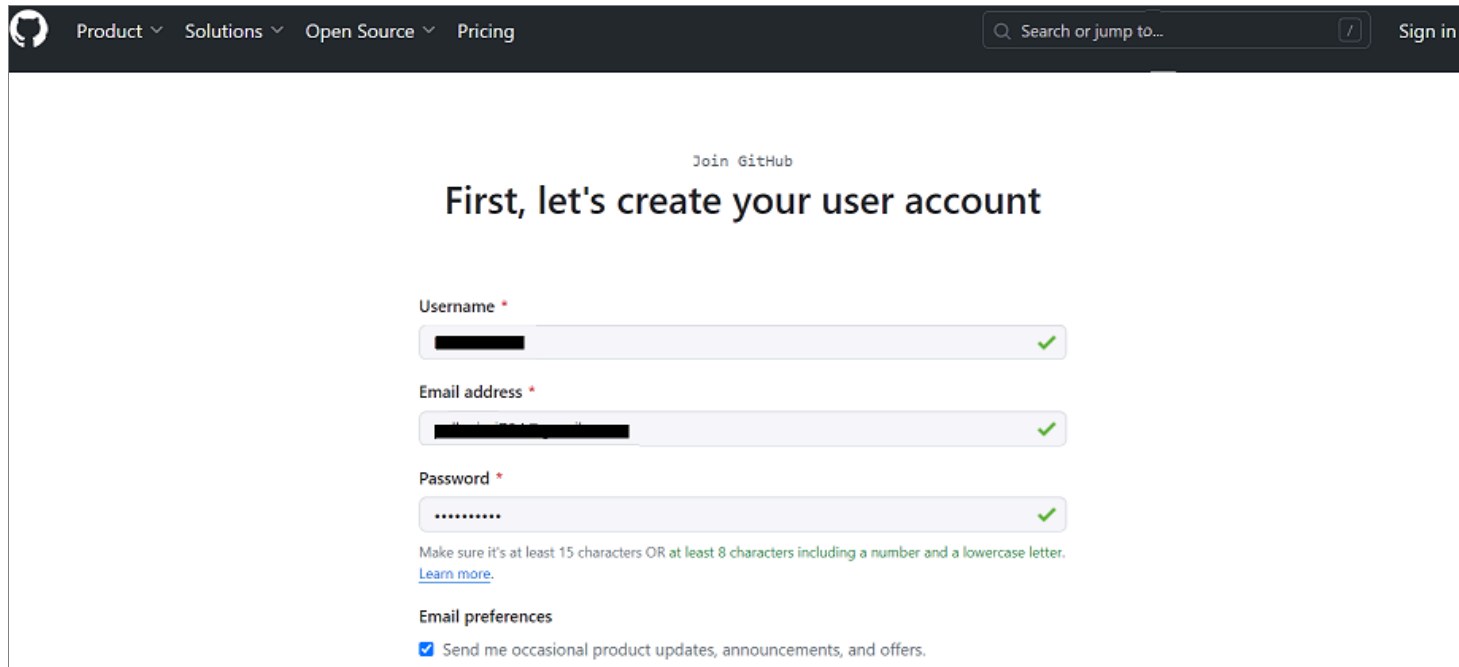
Before we learn to use GitHub, let's first review Git. Git is an open-source command-line-based version-control system for software development. While Git is a command-line tool and you also need to host and maintain a server on which you can use Git for versioning.

GitHub is a repository hosting service that uses Git. GitHub provides a web-based hosting service with a graphical user interface(GUI) and git command line interface (CLI). It also provides access control and several collaboration features, such as wikis and basic task management tools, for every project. GitHub provides cloud storage for source code, supports all popular programming languages, and streamlines the iteration process. GitHub includes a free plan for individual developers and for hosting open-source projects.

1. Creating a GitHub account

To create an account in GitHub, complete the following steps:

1. Go to the [Join GitHub](#) page and create an account. **Note:** If you already have a GitHub account, log in now.
2. Provide the necessary details to create an account as shown below:



The screenshot shows the GitHub 'Join GitHub' page. At the top is a dark navigation bar with the GitHub logo, links for 'Product', 'Solutions', 'Open Source', and 'Pricing', a search bar with the placeholder 'Search or jump to...', and a 'Sign in' link. The main content area has a heading 'Join GitHub' and a large subheading 'First, let's create your user account'. Below this are three input fields: 'Username', 'Email address', and 'Password'. Each field has a green checkmark on the right, indicating successful validation. The 'Password' field has a note below it: 'Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter. [Learn more.](#)'. Under the password field is the 'Email preferences' section with a checked checkbox and the text 'Send me occasional product updates, announcements, and offers.'

Join GitHub

First, let's create your user account

Username *

Email address *

Password *

Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter. [Learn more.](#)

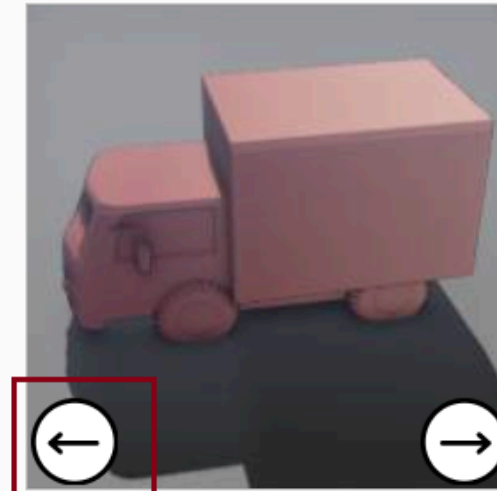
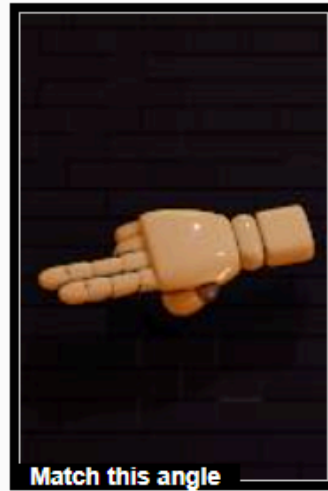
Email preferences

☒ Send me occasional product updates, announcements, and offers.

3. Verify the account, and then click **Submit**.

Verify your account

Use the arrows to rotate the object to face in the direction of the hand. (1 of 2)




Submit



4. When you have finished, click **Create account**.

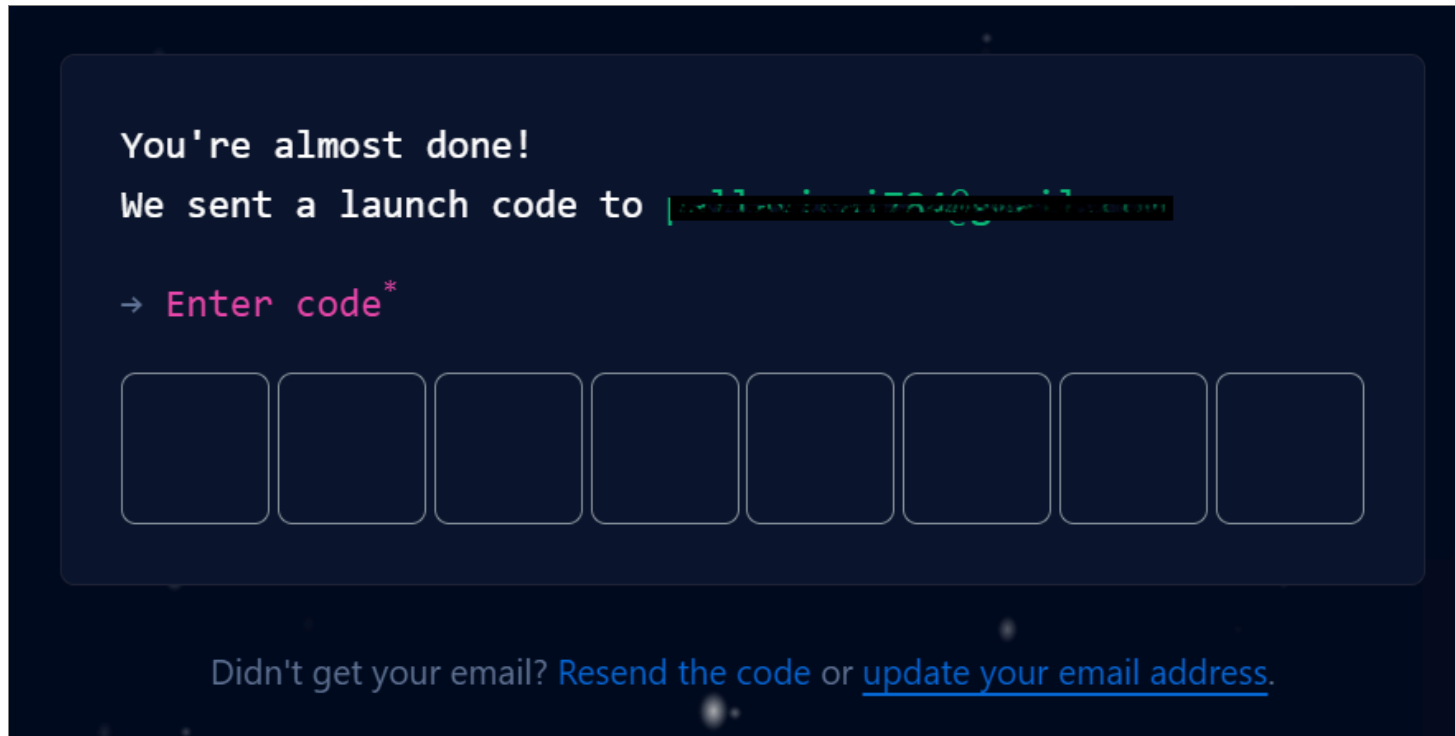
Verify your account



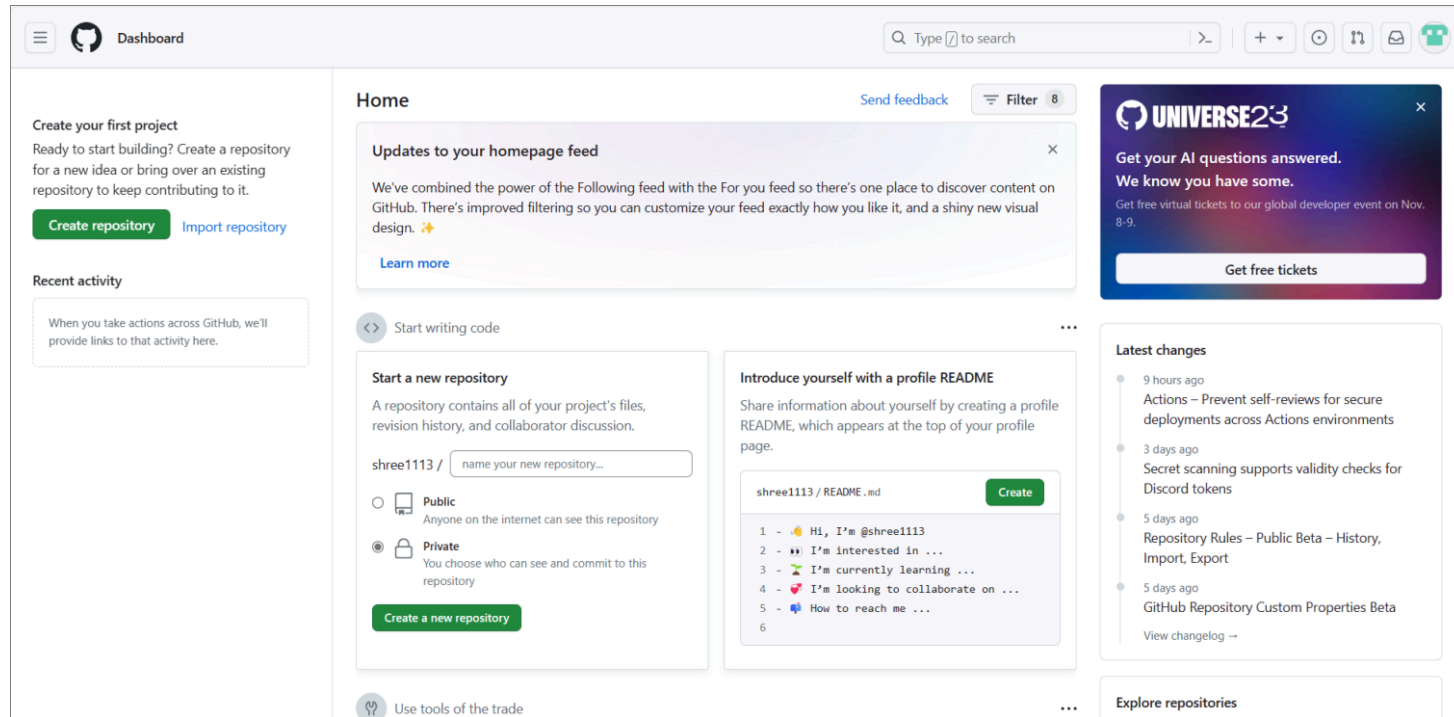
Create account

By creating an account, you agree to the [Terms of Service](#). For more information about GitHub's privacy practices, see the [GitHub Privacy Statement](#). We'll occasionally send you account-related emails.

5. You will receive a verification email from GitHub. Click the enclosed link to verify your email or enter the provided verification code. **Note:** If you do not receive a verification email, click **Resend the code**.



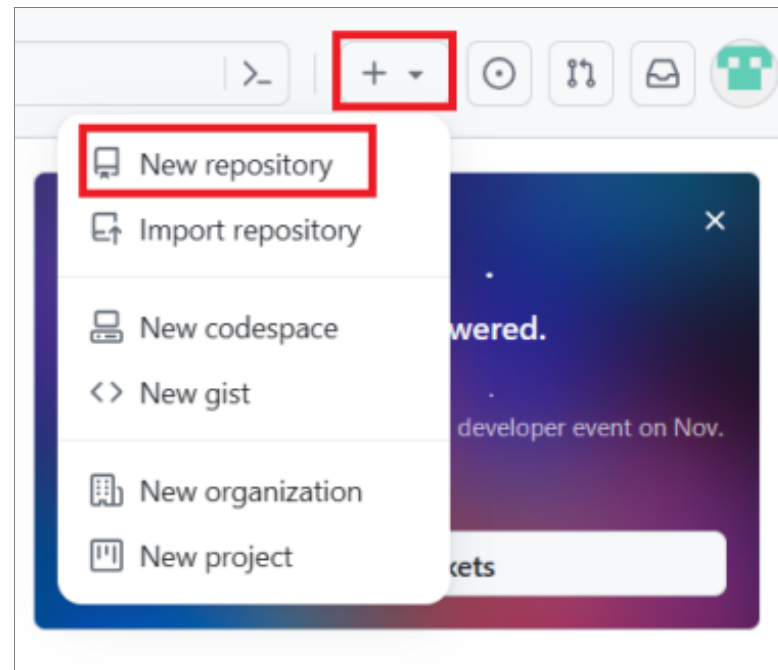
6. After entering the provided verification code, you will see a screen that looks like this. This indicates that you are logged into your account and you are ready to start using it.



2: Add a project/repository

To add a new repository, complete the following steps:

1. At the top right of the GitHub home page, click on the "+" icon and select **New repository**.



2. Enter a repository name and select the **Add a README file** check box under the **Initialize this repository with:** option.

Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Required fields are marked with an asterisk ().*

Repository template

No template ▾

Start your repository with a template repository's contents.

Owner *





Repository name *

testrepo

✓ testrepo is available.

Great repository names are short and memorable. Need inspiration? How about [silver-octo-computing-machine](#)?

Description (optional)

- ☒  **Public**
Anyone on the internet can see this repository. You choose who can commit.
- ☐  **Private**
You choose who can see and commit to this repository.

Initialize this repository with:

- ☒ **Add a README file**
This is where you can write a long description for your project. [Learn more about READMEs.](#)

Add .gitignore

.gitignore template: None ▾

3. Click **Create repository**.

Initialize this repository with:

☒ **Add a README file**
This is where you can write a long description for your project. [Learn more about READMEs.](#)

Add .gitignore
.gitignore template: **None** ▼
Choose which files not to track from a list of templates. [Learn more about ignoring files.](#)

Choose a license
License: **None** ▼
A license tells others what they can and can't do with your code. [Learn more about licenses.](#)

This will set **main** as the default branch. Change the default name in your [settings](#).

❗ You are creating a public repository in your personal account.

Create repository

4. The repository is created and its home page is displayed.

The screenshot shows the GitHub repository home page for 'testrepo', which is a public repository. At the top, there are buttons for 'Pin', 'Unwatch' (1), 'Fork' (0), and 'Star' (0). Below this, the repository name 'testrepo' is displayed with a 'Public' badge. The main section shows the 'main' branch selected, with 1 branch and 0 tags. A 'Go to file' button is present. Below the branch information, a commit history table is shown with one commit: 'Initial commit' by 'bd037ee' at 'now', with 1 commit. A file named 'README.md' is listed as part of the initial commit. The README content is displayed below, showing the repository name 'testrepo' with a link icon. On the right side, the 'About' section is visible, stating 'No description, website, or topics provided.' and listing 'Readme', 'Activity', '0 stars', '0 watching', and '0 forks'. Below this, the 'Releases' section shows 'No releases published' with a link to 'Create a new release'. The 'Packages' section shows 'No packages published' with a link to 'Publish your first package'.

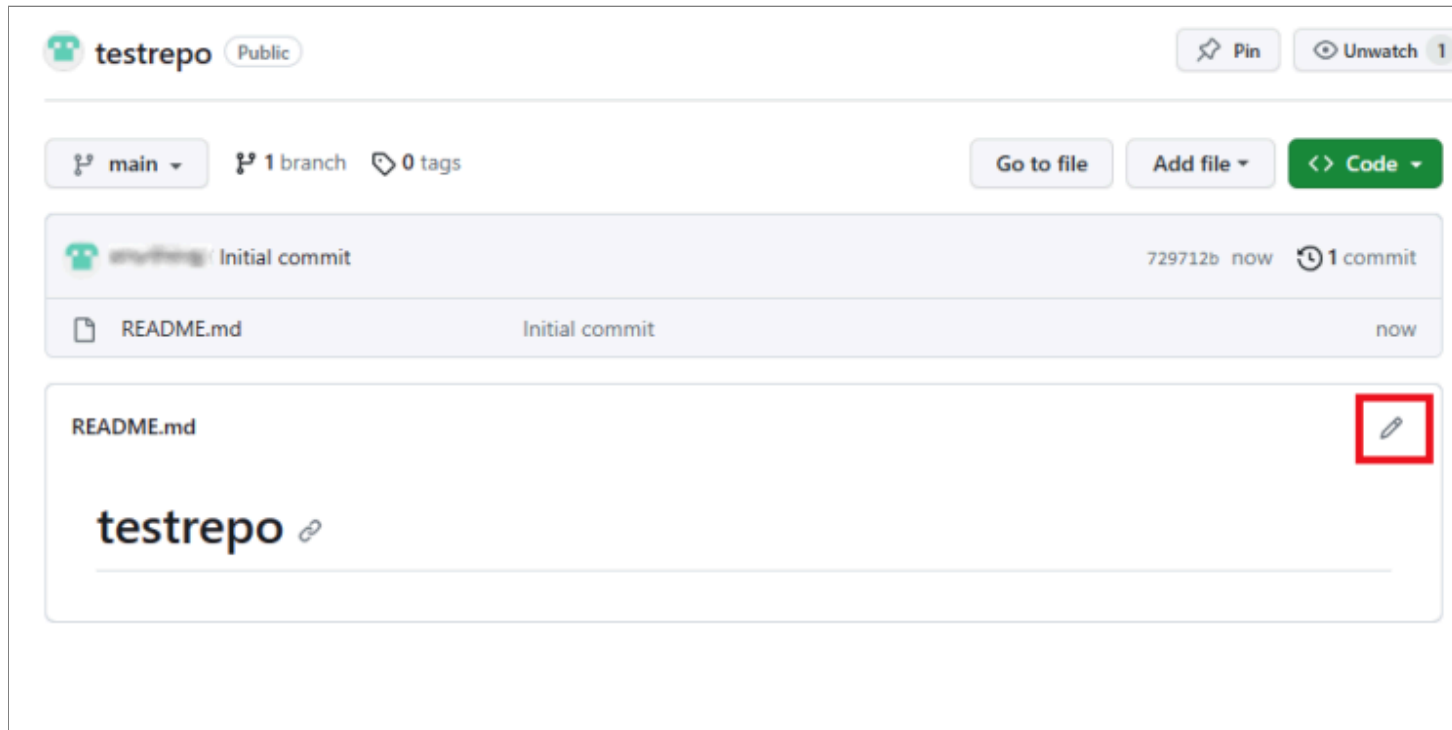
Next, you'll start editing the repository.

3: Create and edit a file

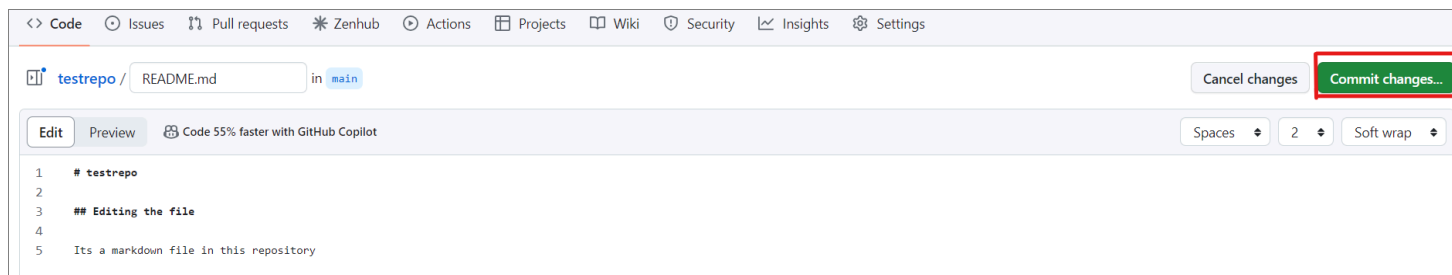
3.1 Edit a file

Although you will normally create a file before you edit it, in this case, the `README.md` file has already been created for you. To edit that file, complete the following steps:

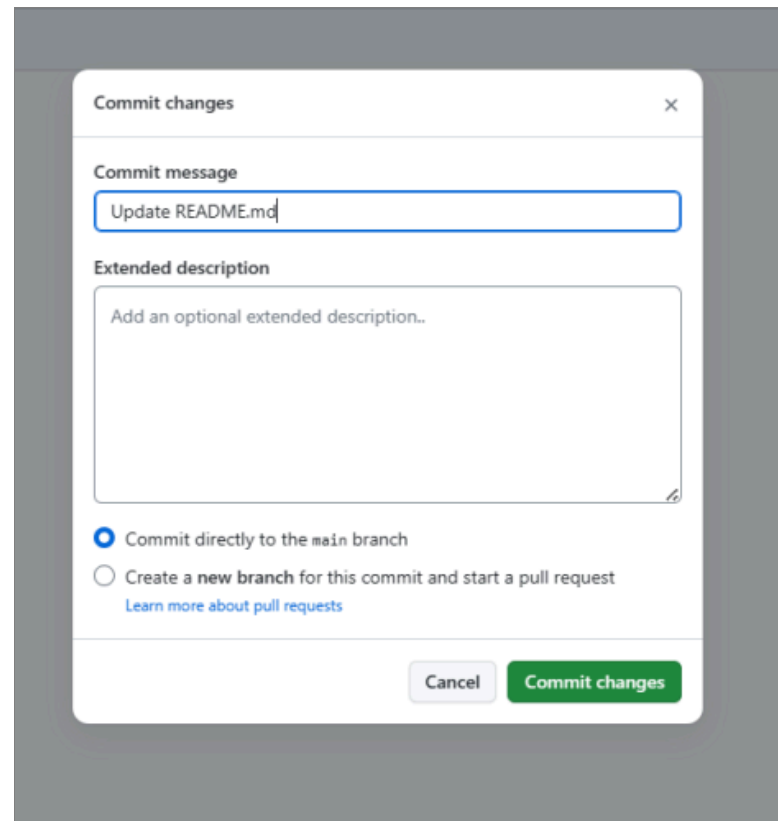
1. Your repository root folder contains just one file: `README.md`. Click the pencil icon at the right to edit the file.



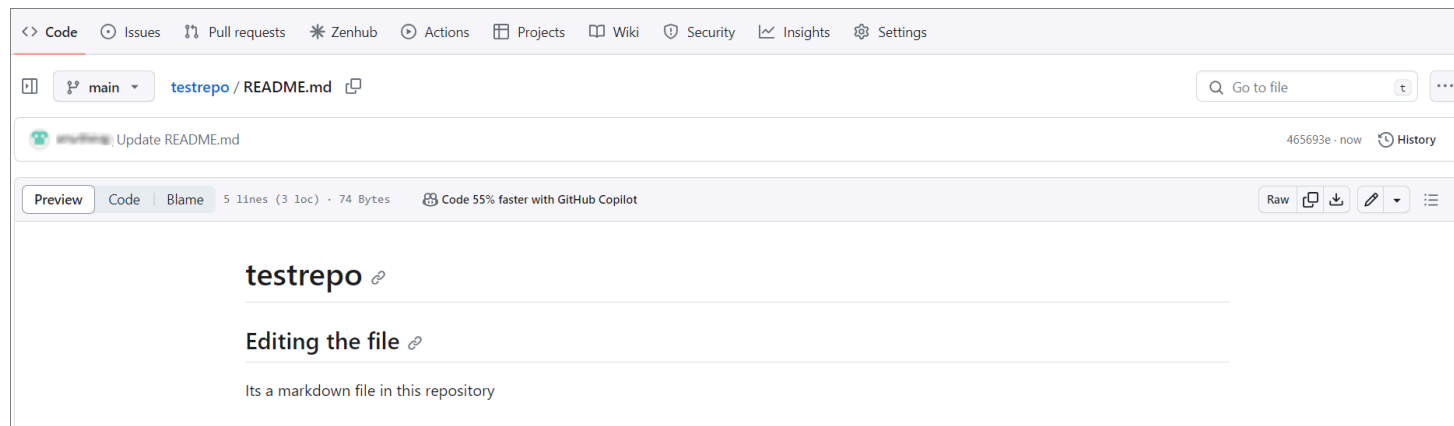
2. Add "It's a markdown file in this repository" text to the file and go to top right and click Commit changes



3. Add some additional description and click **Commit changes**.

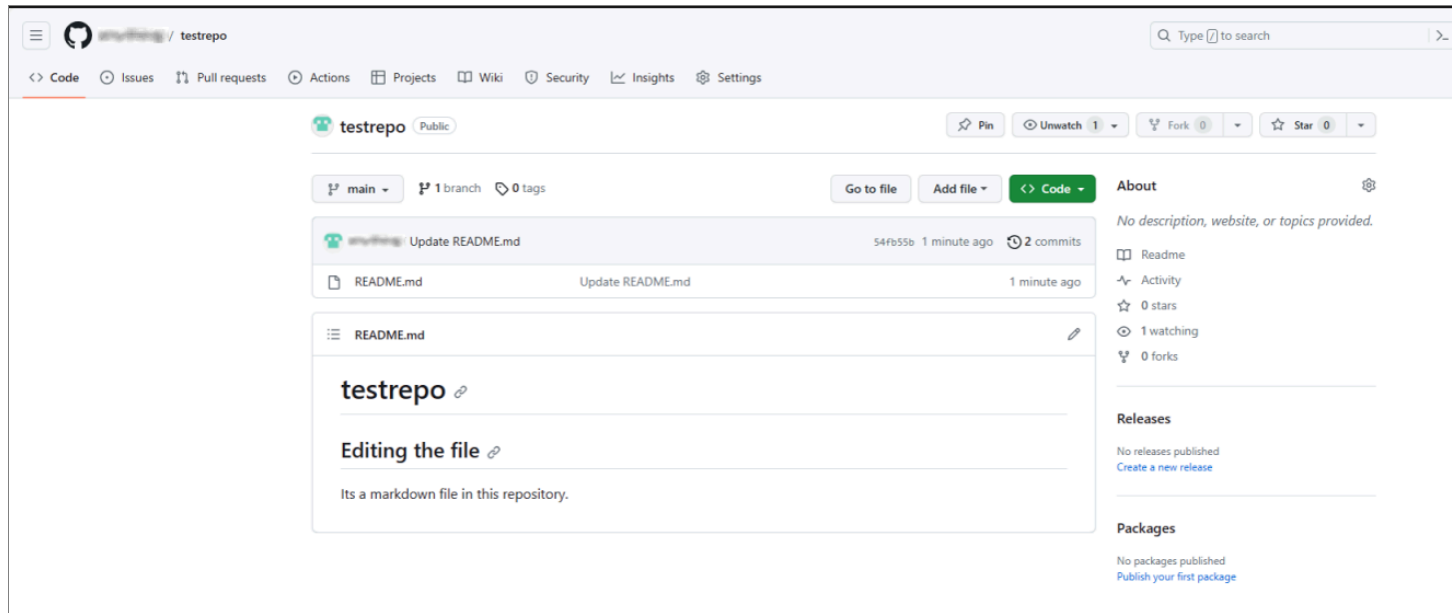


4. Confirm that the text you added to the file has been saved.

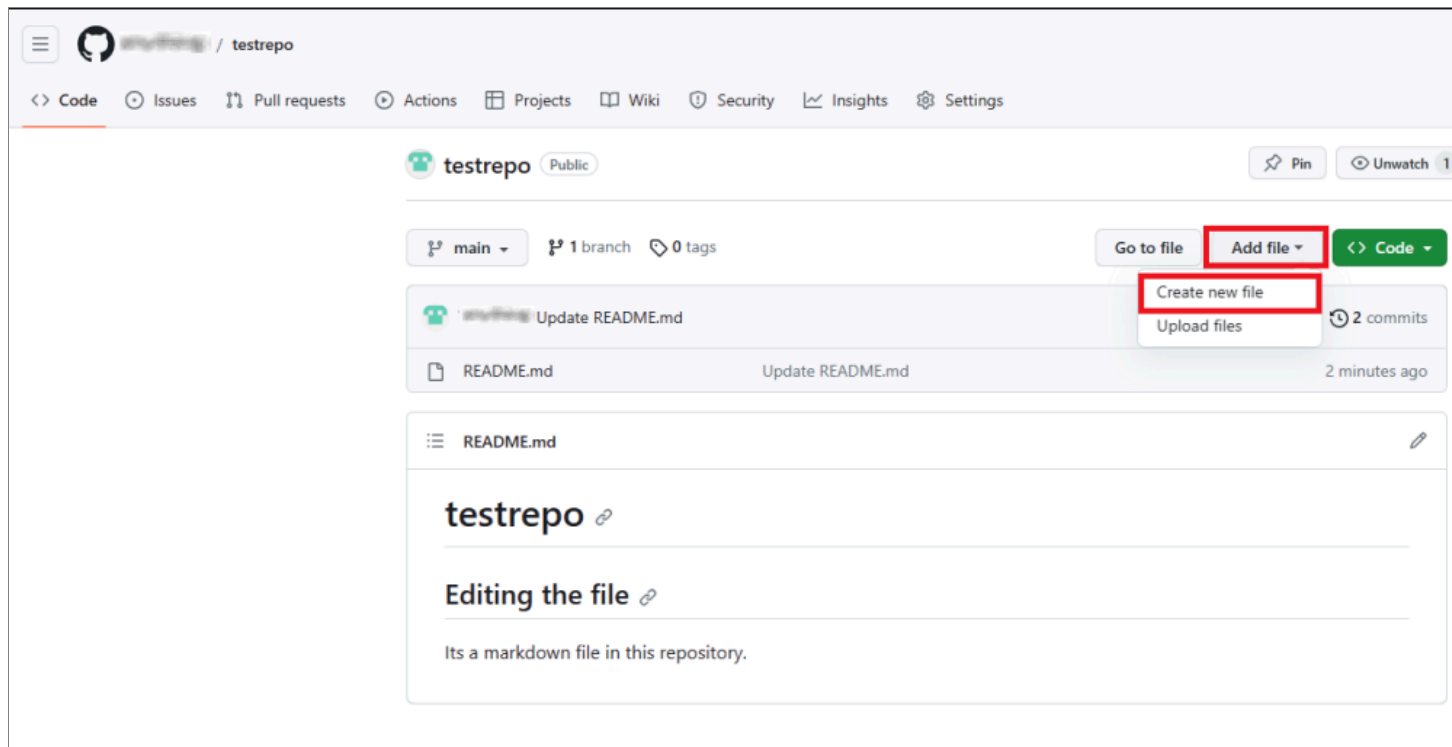


3.2 Create a new file

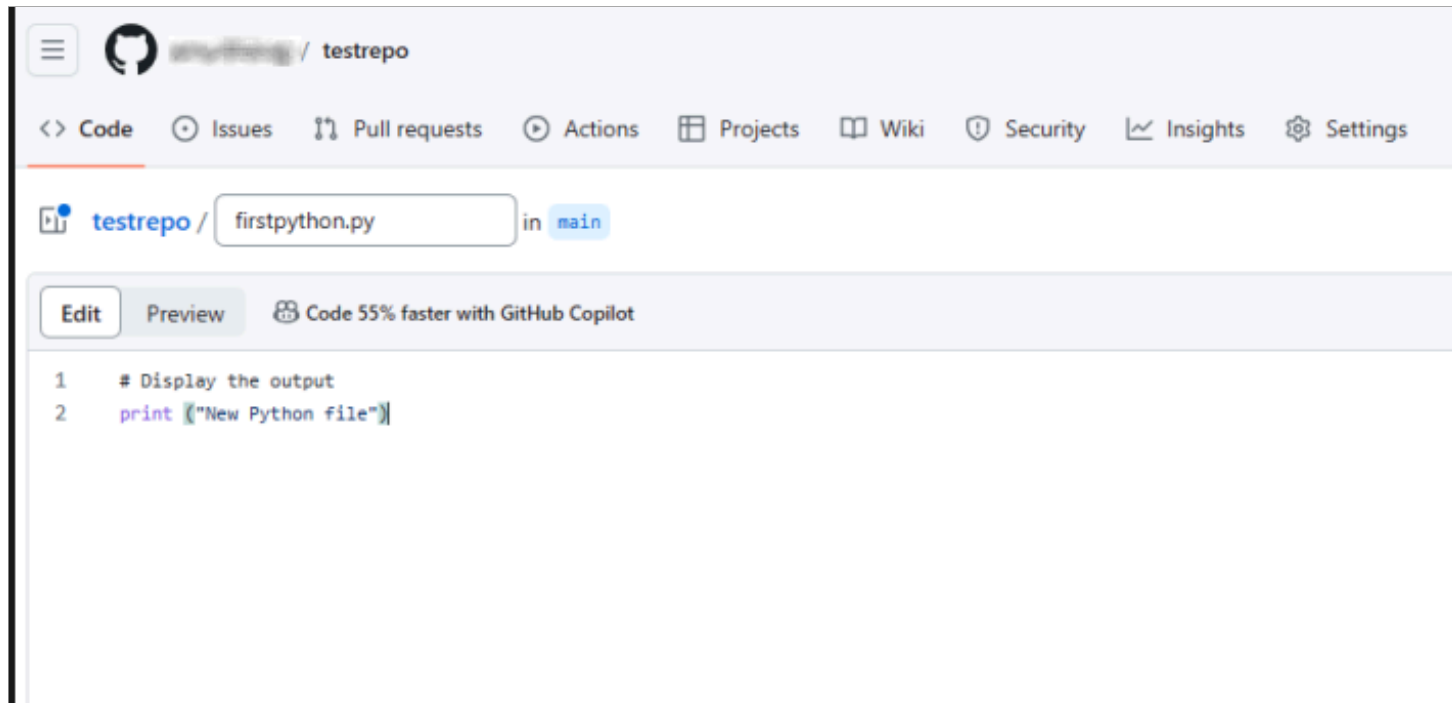
1. Click on the repository name to go back to the main branch, similar to this repository called testrepo.



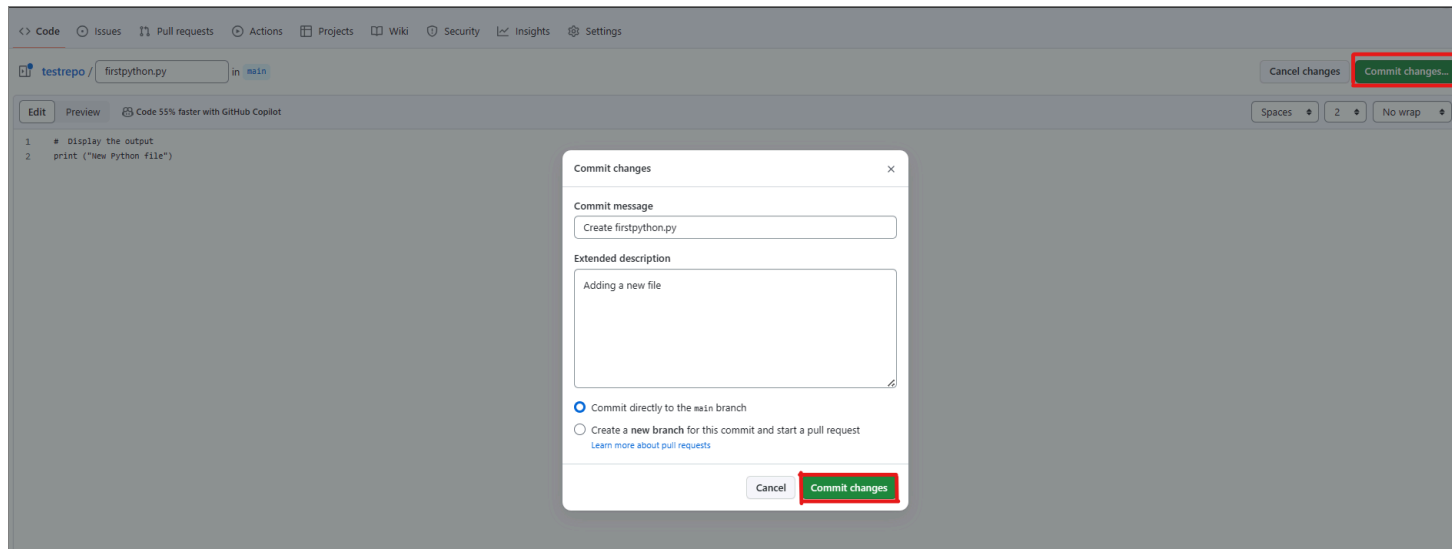
2. Click **Add file** and select **Create new file** to create a new file in the repository.



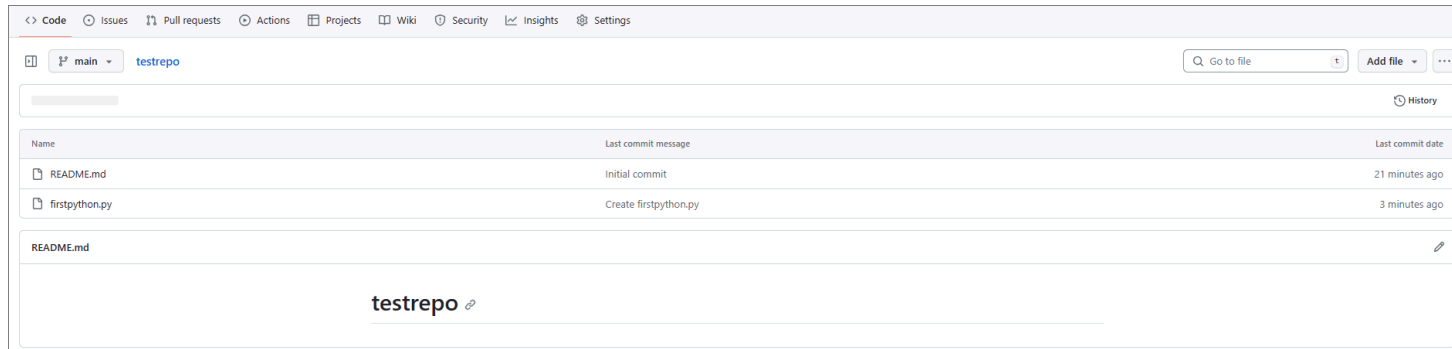
3. Enter a file name and extension; for example, `firstpython.py`. Add the lines of code displayed in the following image to your file:



4. Scroll to the top right of the page and click Commit changes. You can optionally add a description of your update (for example, “Adding a new file”). Click **Commit changes** to create your new file.



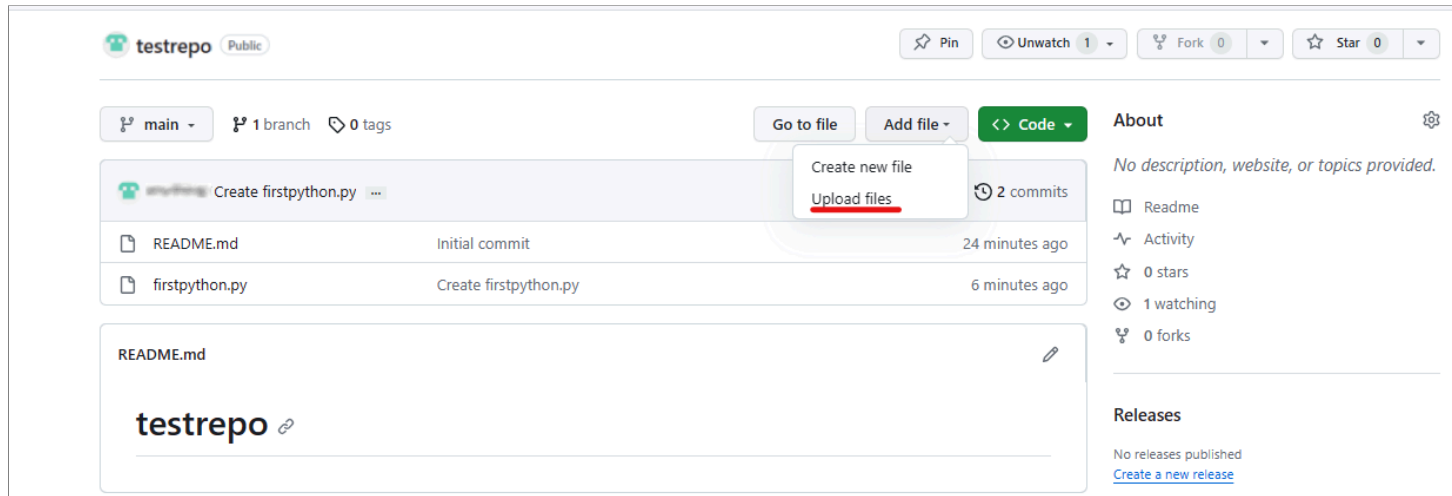
5. Your file is now added to your repository and the repository listing shows when the file was added or last revised.



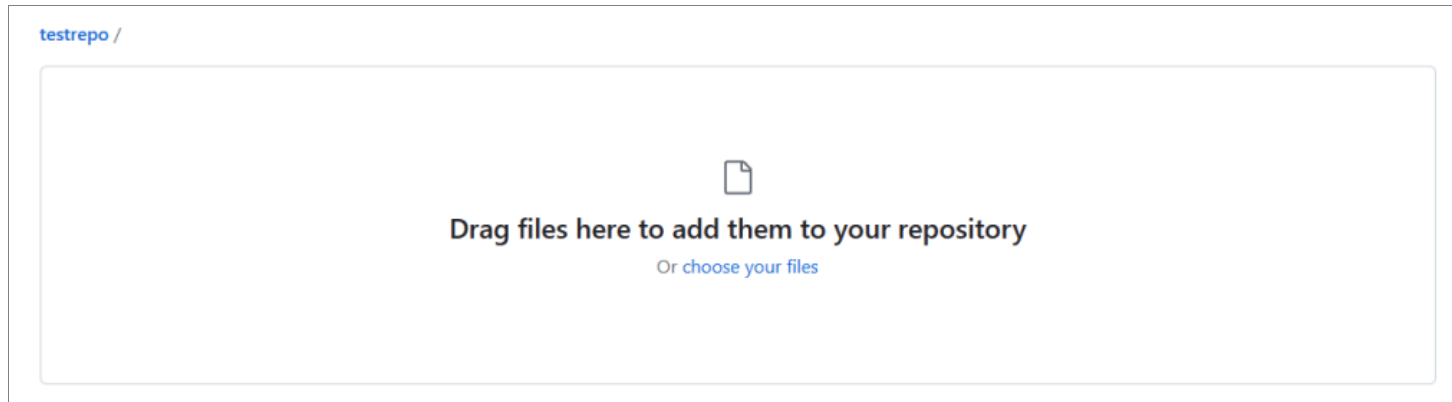
4. Upload and commit a file

To upload a local file and commit it to your repository, complete the following steps:

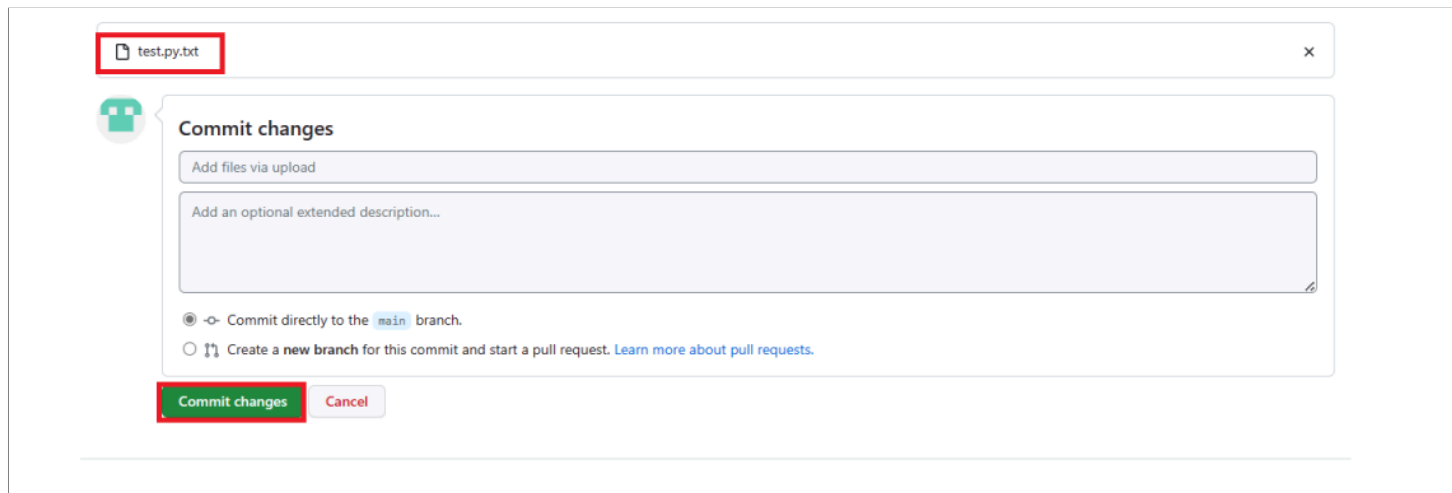
1. On your repository page, click **Add file** and then select **Upload files** to upload a file.



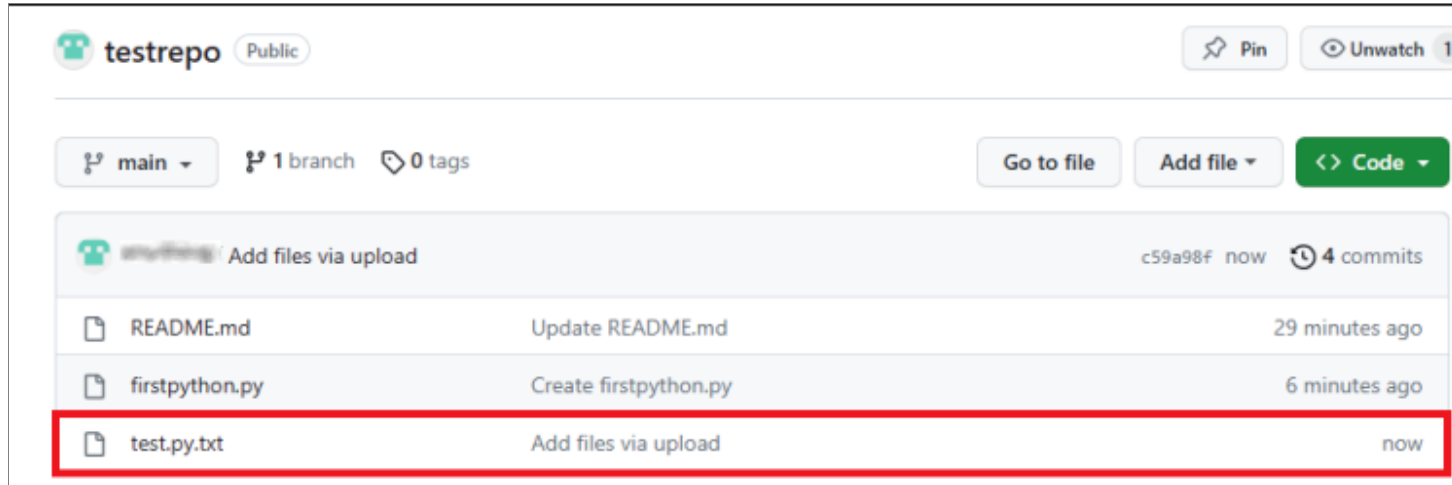
2. Click **choose your files** and choose a file from your computer. You can upload any file (for example, a .txt, .ipynb, or .png file) to the repository.



3. When the file finishes uploading, click **Commit changes**.



4. Your file is uploaded to the repository.



The screenshot shows a GitHub repository interface for 'testrepo' (Public). At the top, there are buttons for 'Pin' and 'Unwatch' (1). Below the repository name, there are buttons for 'main', '1 branch', and '0 tags'. To the right are buttons for 'Go to file', 'Add file', and 'Code'. The commit history table is as follows:

Commit Message	Commit Hash	Time
Update README.md	c59a98f	29 minutes ago
Create firstpython.py		6 minutes ago
Add files via upload		now

Summary

Congratulations! In this lab, you have learned how to create a new repository, add a new file, edit a file, upload a file, and commit your changes. We encourage you to continue to update your repository to become familiar with the processes that you have learned.

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