

Hands-on Lab: Getting Started with GitHub

Estimated time: **20 min**

In this lab, you will get started with GitHub by creating a GitHub account and project and adding a file to it using its Web interface.

Objectives

After completing this lab, you will be able to:

1. Describe GitHub
2. Create a GitHub account
3. Add a project and repo
4. Edit and create a file
5. Upload a file and Commit

GitHub Overview

First, let's introduce you to GitHub. GitHub is a collection of folders and files. It is a Git repository hosting service, but it adds many of its own features. Git is a command-line tool. It hosts and maintains a server via command line. GitHub provides this Git server and a Web-based graphical interface for you. It also provides access control and collaboration features, such as wikis and basic task management tools for every project. In addition, 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 hosting Open Source projects.

Exercise 1: Creating a GitHub Account

Please use the following steps to create an account on GitHub:

Step 1: Create an account: <https://github.com/join>

Sign up to GitHub

Email*

Password*

>Password should be at least 15 characters OR at least 8 characters including a number and a lowercase letter.

Username*

Username may only contain alphanumeric characters or single hyphens, and cannot begin or end with a hyphen.

Continue >

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.

NOTE: If you already have a GitHub account, you can skip this step and simply log in to your account.

Step 2: Provide the necessary details to create an account as shown below:

Sign up to GitHub

Email*

Password*

Password should be at least 15 characters OR at least 8 characters including a number and a lowercase letter.

Username*

Username may only contain alphanumeric characters or single hyphens, and cannot begin or end with a hyphen.

Continue >

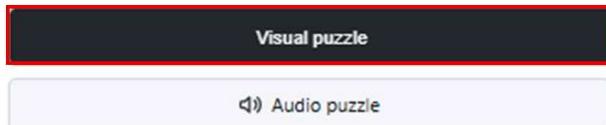
By creating an account, you agree to the [Terms of Service](#). For more information about GitHub's privacy practices, see the [GitHub Privacy Statement](#). We'll occasionally send you account-related emails.

Click Continue.

Step 3: Click visual puzzle to verify the account.

Verify your account

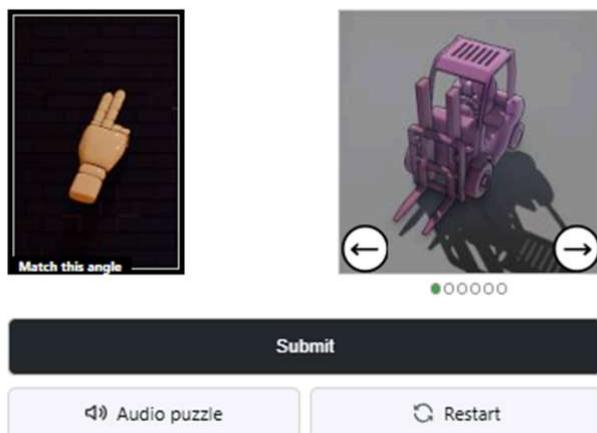
Please solve a puzzle so we can safely create your account.



Step 4: Solve the puzzle and submit.

Verify your account

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



Step 5: Open your email, find the GitHub verification email, copy the verification code, and return to the GitHub Signup page to enter it.

Step 6: Confirm youe eamil address using the verification code and Continue.

Confirm your email address

We have sent a code to [REDACTED]@gmail.com

Enter code

Continue >

Didn't get your email? [Resend the code](#) or [update your email address](#).

NOTE: If you do not receive the verification email, click Resend the code.

Step 7: Sign in to GitHub, enter Id and Password and sign in



Sign in to GitHub

Your account was created successfully. Please sign in to continue.

Username or email address

Password [Forgot password?](#)

Sign in

[Sign in with a passkey](#)

New to GitHub? [Create an account](#)

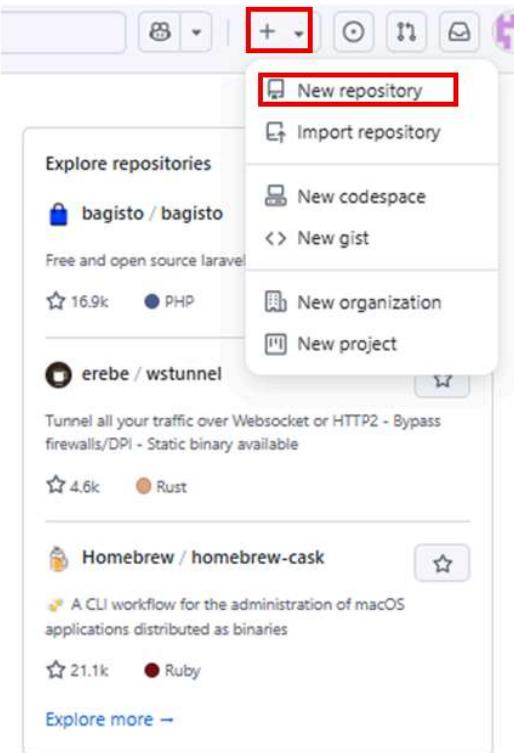
You will see the home page.

The screenshot shows the GitHub homepage with the following elements:

- Create your first project:** Ready to start building? Create a repository for a new idea or bring over an existing repository to keep contributing to it.
- Create repository** and **Import repository** buttons.
- Ask Copilot**: Ready to start building? Create a repository for a new idea or bring over an existing repository to keep contributing to it.
- What are Python decorators?**, **Python Panda data analysis**, **Rails authentication endpoint** buttons.
- Home** section:
 - Learn with a tutorial project**:
 - Introduction to GitHub**: Get started using GitHub in less than an hour.
 - Code with Copilot**: Develop with AI-powered code suggestions using GitHub Copilot, Codespaces, and VS Code.
 - GITHUB Pages**: Create a site or blog from your GitHub repositories with GitHub Pages.
 - Hello GitHub Actions**: Create a GitHub Action and use it in a workflow.
- Explore repositories** sidebar:
 - bagisto / bagisto**: Free and open source laravel eCommerce platform. 16.9k stars, PHP.
 - erebe / wstunnel**: Tunnel all your traffic over Websocket or HTTP2 - Bypass firewalls/DPN - Static binary available. 4.8k stars, Rust.
 - Homebrew / homebrew-cask**: A CLI workflow for the administration of macOS applications distributed as binaries. 21.1k stars, Ruby.
- Start writing code** section:
 - Start a new repository for patelpooja11**: A repository contains all of your project's files, revision history, and collaborator discussion.
 - Repository name ***: patelpooja11
 - Create** button
- Introduce yourself with a profile README**: Share information about yourself by creating a profile README, which appears at the top of your profile page.

Exercise 2: Adding a project and repo

Step 1: Click the + symbol and click New repository.



Step 2: Provide a name for the repository and initialize it with the empty README.md file.

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 (*).

Owner * Repository name *

patelpooja11 / TestRepo is available.

Great repository names are short and memorable. Need inspiration? How about [automatic-chainsaw](#) ?

Description (optional)

Testing repository

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 ▾

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](#).

You are creating a public repository in your personal account.

Create repository

Click Create repository.

Now, you will be redirected to the repository you have created.

Let us start editing the repository.

Exercise 3: Create and edit a file

Exercise 3a: Edit a file

Step 1: Once the repository is created, the root folder of your repository is listed by default, and has just one file, `ReadMe.md`. Click the pencil icon to edit the file.

TestRepo Public

main 1 Branch 0 Tags Go to file Add file Code

patelpooja11 Initial commit 3 minutes ago 1 Commit

README.md Initial commit 3 minutes ago

README

TestRepo

Testing repository

Step 2: Add some text to the file.

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

TestRepo / README.md in main

Edit Preview Code 55% faster with GitHub Copilot

```
1 # TestRepo
2 Testing repository
3 This is the first markdown file.
```

Step 3: After adding the text and click Commit Changes.

Commit changes

Commit message

Update README.md

Extended description

Add an optional extended description...

Commit directly to the main branch
 Create a new branch for this commit and start a pull request [Learn more about pull requests](#)

Commit changes

Now, check that your file is edited with the new text.

Exercise 3b: Create a new file

Step 1: Click the repository name to return to the master branch, like in this testrepo.

TestRepo / README.md

patelpooja11 Update README.md cdf185c - 1 minute ago History

Preview Code Blame 3 lines (3 loc) - 63 Bytes Code 55% faster with GitHub Copilot

TestRepo

Testing repository This is the first markdown file.

Step 2: Click Add file and select Create New file to create a file in the repository.

The screenshot shows a GitHub repository named 'TestRepo'. At the top, there are buttons for 'Pin' and 'Unwatch 1'. Below that, a navigation bar shows 'main' (branch), '1 Branch', '0 Tags', and a search bar with 'Go to file'. The main area displays a commit from 'patelpooja11' titled 'Update README.md'. A dropdown menu is open over the 'Add file' button, showing '+ Create new file' and 'Upload files'. Below the commit, the 'README' file is shown with its content: 'Testing repository This is the first markdown file.'

Step 3: Provide the file name and the extension of the file. For example, `firstpython.py` and add the lines.

The screenshot shows the GitHub code editor for the 'firstpython.py' file in the 'main' branch. The code content is:

```

1 # Print the output
2 print("New Python file")

```

Step 4: Commit changes after adding the text. Add description of the file (optional) and click `Commit changes`.

The screenshot shows the 'Commit changes' dialog box. It includes fields for 'Commit message' (containing 'Create firstpython.py') and 'Extended description' (containing 'Adding a new Python file'). There are two radio button options at the bottom: one selected ('Commit directly to the main branch') and one unselected ('Create a new branch for this commit and start a pull request'). At the bottom right is a 'Commit changes' button.

Step 5: Your file is now added to your repository, and the repository listing shows when the file was added and changed.

Exercise 4: Upload a file & Commit

Step 1: Click `Add file` and select `Upload files` to upload a file (any .txt, .ipynb, .png file) in the repository from the local computer.

TestRepo Public

main 1 Branch 0 Tags

Go to file Add file Code

patelpooja11 Create firstpython.py 551cbe · 14 minutes ago
README.md Update README.md 14 minutes ago

firstpython.py Create firstpython.py 3 minutes ago

+ Create new file
Upload files

README

TestRepo

Testing repository This is the first markdown file.

Step 2: Click choose your files and select any files from your computer.

TestRepo /

Drag files here to add them to your repository
Or choose your files

Commit changes

Add files via upload

Add an optional extended description...

Commit directly to the `main` branch.
 Create a new branch for this commit and start a pull request. [Learn more about pull requests.](#)

Commit changes Cancel

Step 3: Once the file finishes uploading, click Commit changes.

Test.ipynb

Commit changes

Add files via upload

Add an optional extended description...

Commit directly to the `main` branch.
 Create a new branch for this commit and start a pull request. [Learn more about pull requests.](#)

Commit changes Cancel

Step 4: Now, your file is uploaded in the repository.

TestRepo Public

main 1 Branch 0 Tags

Go to file Add file Code

patelpooja11 Add files via upload 35f86b6 · now 4 Commits

README.md Update README.md 17 minutes ago

Test.ipynb Add files via upload now

firstpython.py Create firstpython.py 7 minutes ago

Summary

In this document, you have learned how to create a new repository, add a new file, edit a file, upload a file in a repository, and commit the changes.

Author(s)

Romeo Kienzler

Malika Singla

Other Contributor(s)

Rav Ahuja



Skills Network