

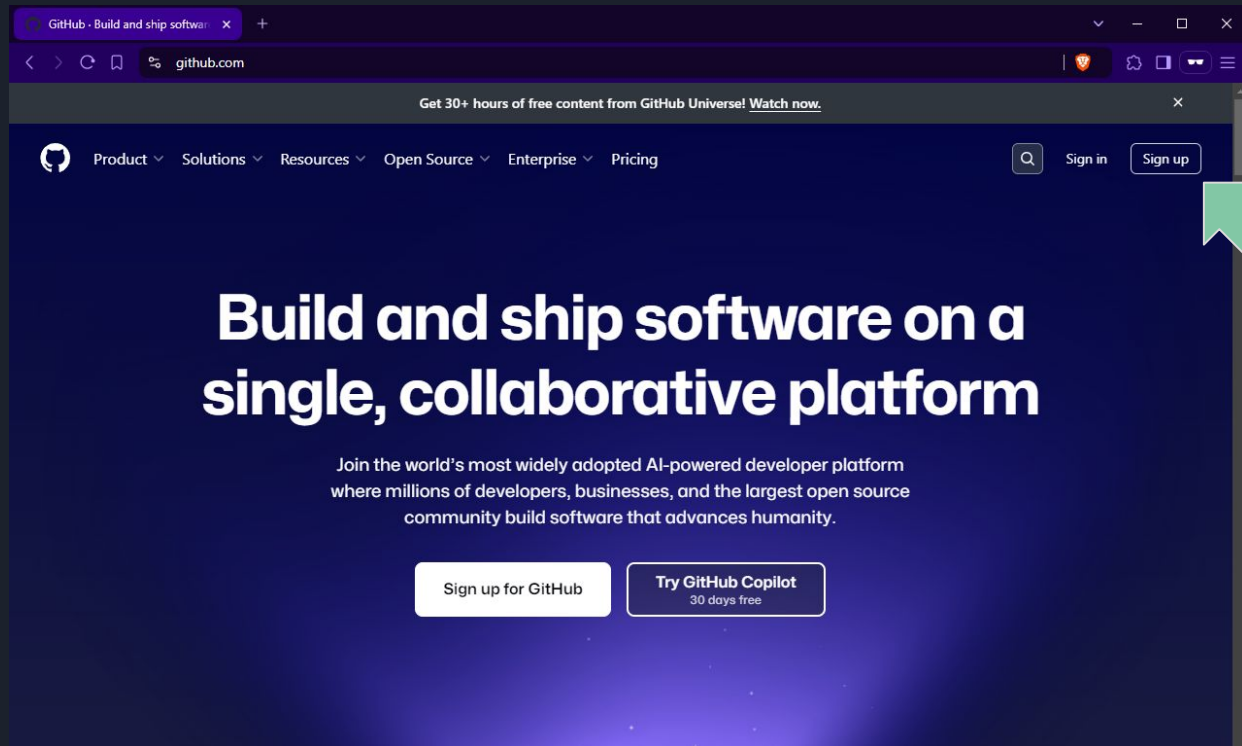


# Introductory Java and FTC Programming Workshop

*Tools - GitHub*

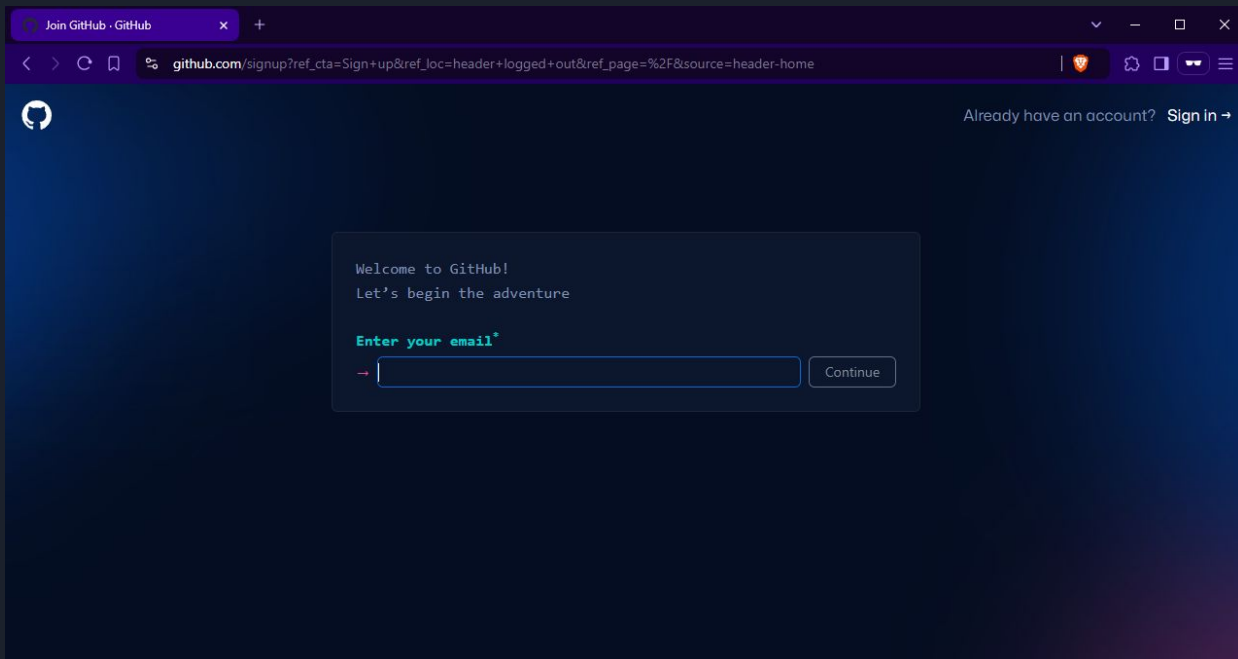
Hanson Chan

# GitHub Website



Sign up

# Sign up (Email)



A screenshot of the GitHub sign-up page in a web browser. The browser's address bar shows the URL `github.com/signup?ref_cta=Sign+up&ref_loc=header+logged+out&ref_page=%2F&source=header-home`. The page features the GitHub logo in the top left and a "Sign in" link in the top right. The main content area is a dark blue box with the text "Welcome to GitHub!" and "Let's begin the adventure." Below this, there is a label "Enter your email\*" and a text input field. A "Continue" button is positioned to the right of the input field.

Join GitHub · GitHub

github.com/signup?ref\_cta=Sign+up&ref\_loc=header+logged+out&ref\_page=%2F&source=header-home

Already have an account? [Sign in](#)

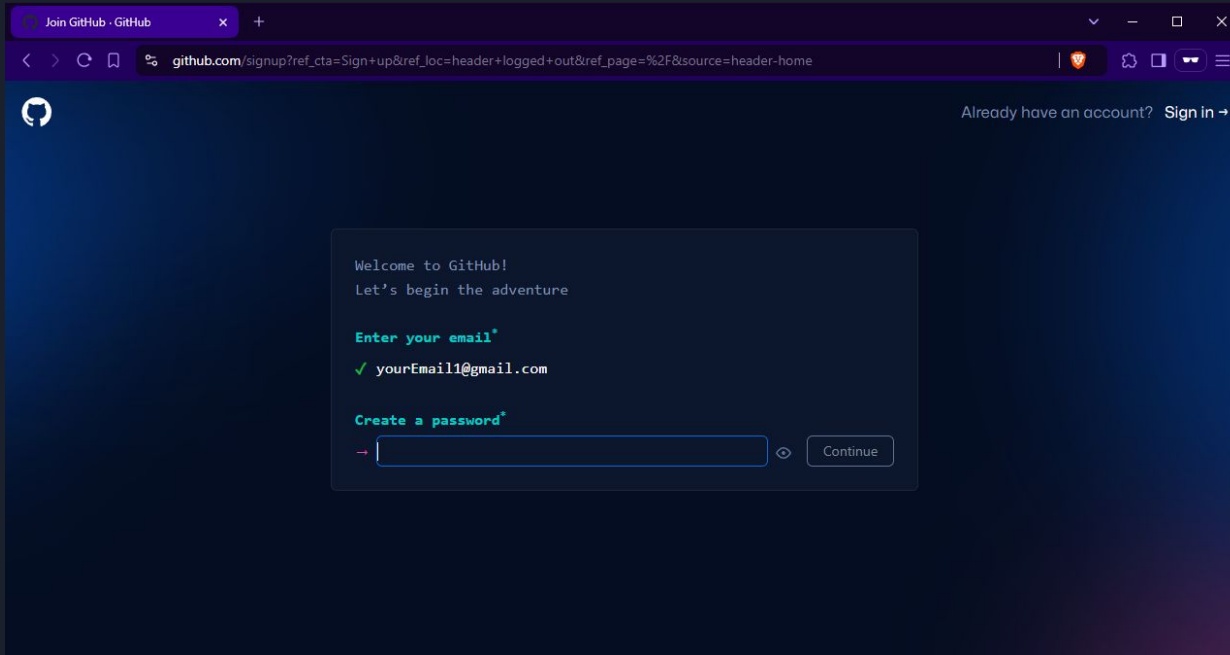
Welcome to GitHub!  
Let's begin the adventure.

Enter your email\*

→

Continue

# Sign up (Password)



The screenshot shows the GitHub sign-up page in a web browser. The browser's address bar displays the URL: `github.com/signup?ref_cta=Sign+up&ref_loc=header+logged+out&ref_page=%2F&source=header-home`. The GitHub logo is in the top left, and a link to "Sign in" is in the top right. The main content area has a dark blue background with a white text box in the center. Inside the text box, it says "Welcome to GitHub!" and "Let's begin the adventure". Below this, there is a section for email entry with the label "Enter your email\*", a green checkmark, and the text "yourEmail1@gmail.com". Underneath is a section for password entry with the label "Create a password\*", a red arrow pointing to a text input field, and a "Continue" button.

Join GitHub · GitHub

github.com/signup?ref\_cta=Sign+up&ref\_loc=header+logged+out&ref\_page=%2F&source=header-home

Already have an account? [Sign in](#)

Welcome to GitHub!  
Let's begin the adventure

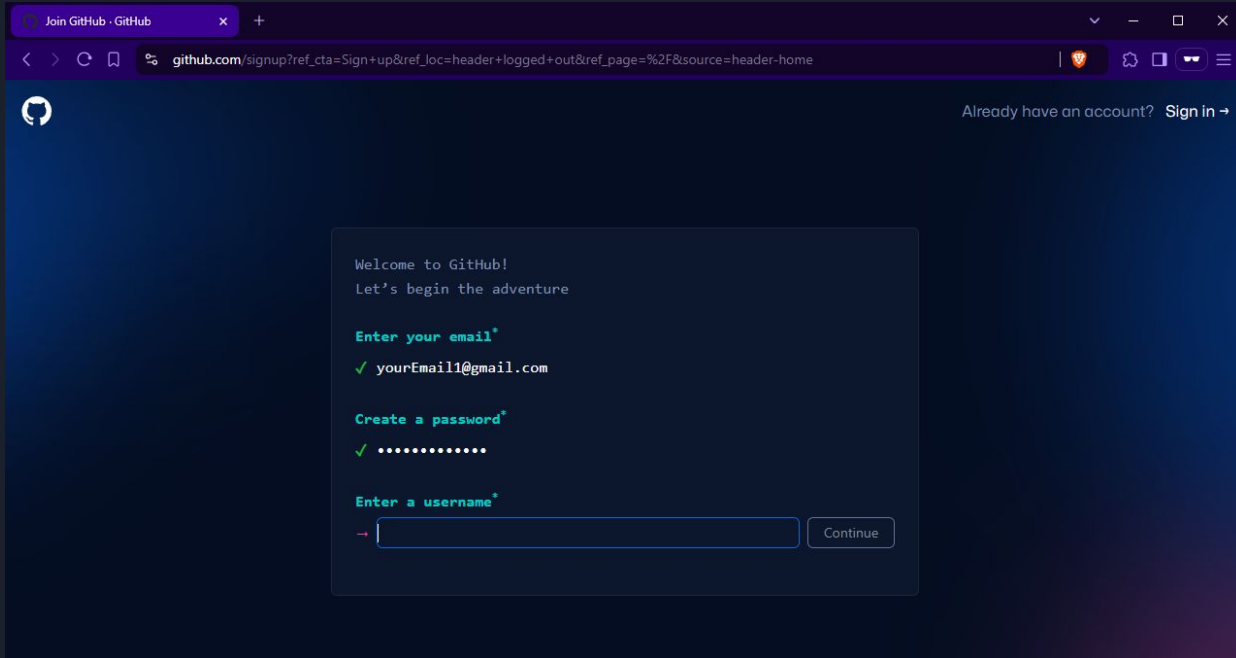
Enter your email\*

✓ yourEmail1@gmail.com

Create a password\*

→

# Sign up (Username)



The screenshot shows the GitHub sign-up process in a web browser. The browser's address bar displays the URL `github.com/signup?ref_cta=Sign+up&ref_loc=header+logged+out&ref_page=%2F&source=header-home`. The GitHub logo is in the top left, and a link to 'Sign in' is in the top right. The main content area has a dark blue background with a white text box containing the following text:

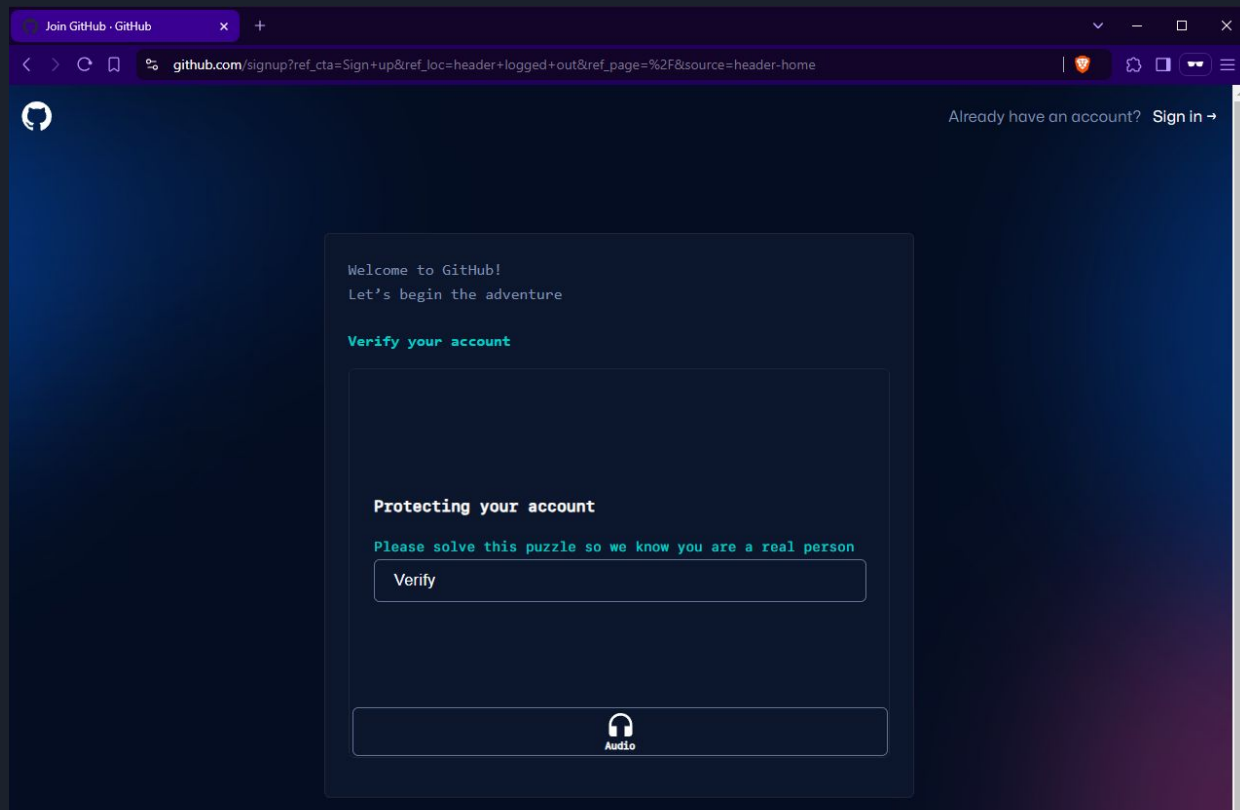
Welcome to GitHub!  
Let's begin the adventure

**Enter your email\***  
✓ yourEmail1@gmail.com

**Create a password\***  
✓ .....

**Enter a username\***  
→  Continue

# Sign up (Verify)



The screenshot shows the GitHub sign-up verification page. The browser's address bar displays the URL: `github.com/signup?ref_cta=Sign+up&ref_loc=header+logged+out&ref_page=%2F&source=header-home`. The page features the GitHub logo in the top left and a link to "Sign in" in the top right. The main content area is a dark blue box with the following text:

Welcome to GitHub!  
Let's begin the adventure

**Verify your account**

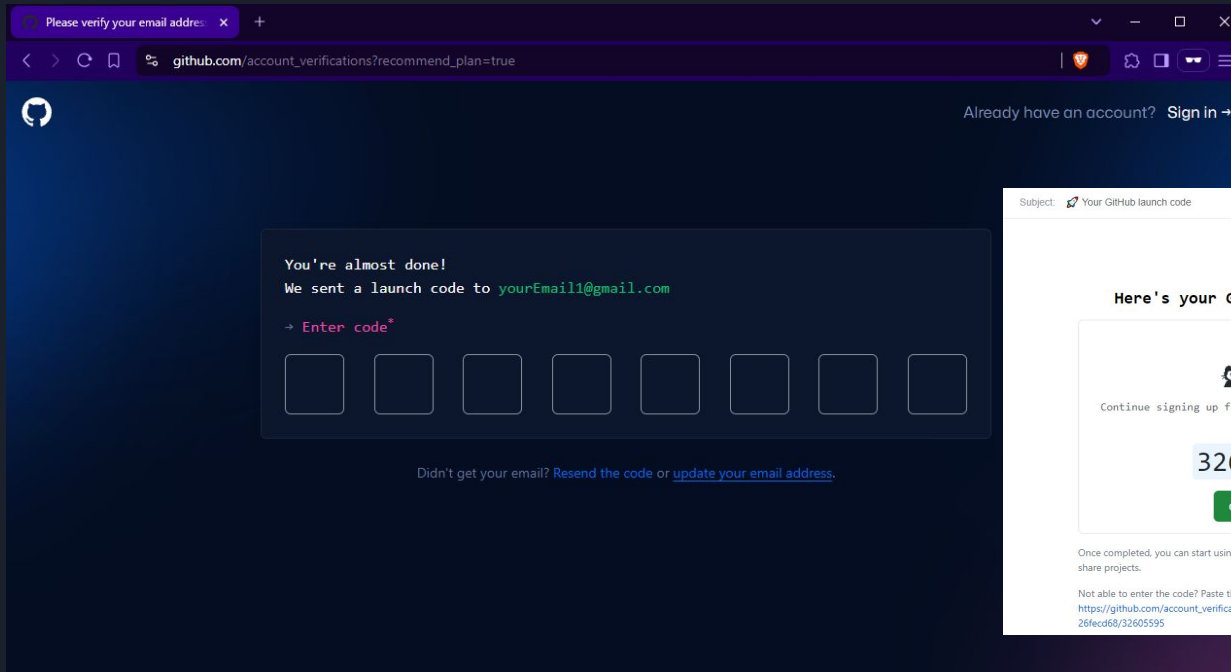
**Protecting your account**

Please solve this puzzle so we know you are a real person

Verify

Audio

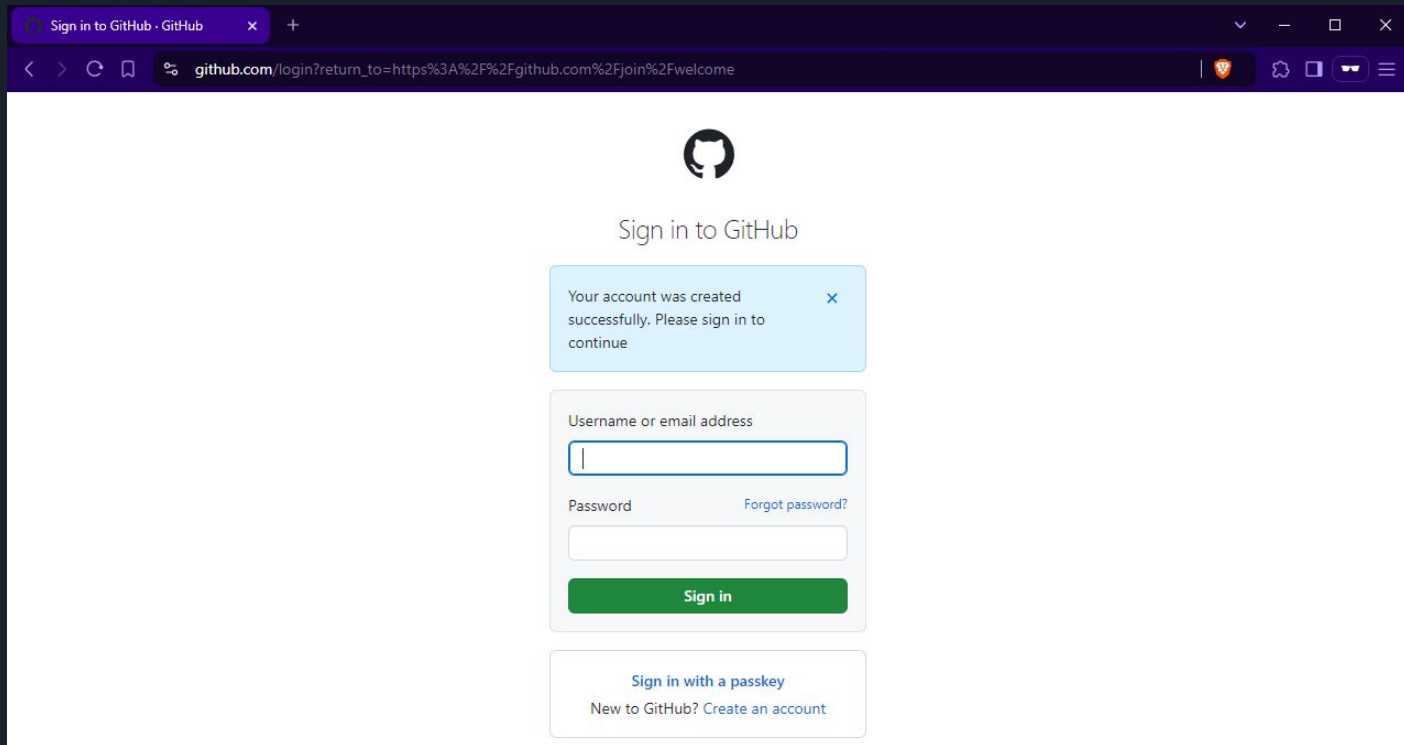
# Sign up (2FA Code)



The image shows the GitHub account verification process. The main screenshot is a browser window at `github.com/account_verifications?recommend_plan=true`. It displays a message: "You're almost done! We sent a launch code to `yourEmail1@gmail.com`". Below this is a prompt "→ Enter code\*" followed by eight empty input boxes. At the bottom, it says "Didn't get your email? [Resend the code](#) or [update your email address](#)".

Overlaid on the bottom right is an email from GitHub with the subject "Your GitHub launch code". The email content says: "Here's your GitHub launch code!". It features the GitHub logo and Octocat, and a rocket ship icon. Below the icon, it says "Continue signing up for GitHub by entering the code below:" followed by the code "32605595" in a large box. A green button labeled "Open GitHub" is at the bottom. The email also includes instructions on what to do after completion and a link to resend the code if needed.

# Sign in



A screenshot of a web browser displaying the GitHub sign-in page. The browser's address bar shows the URL `github.com/login?return_to=https%3A%2F%2Fgithub.com%2Fjoin%2Fwelcome`. The page features the GitHub logo at the top, followed by the heading "Sign in to GitHub". A light blue notification box states: "Your account was created successfully. Please sign in to continue". Below this is a form with two input fields: "Username or email address" and "Password". A link for "Forgot password?" is positioned to the right of the password field. A green "Sign in" button is located at the bottom of the form. At the very bottom of the page, there is a link to "Sign in with a passkey" and a footer area with the text "New to GitHub? Create an account".

Sign in to GitHub - GitHub

github.com/login?return\_to=https%3A%2F%2Fgithub.com%2Fjoin%2Fwelcome

Sign in to GitHub

Your account was created successfully. Please sign in to continue

Username or email address

Password [Forgot password?](#)

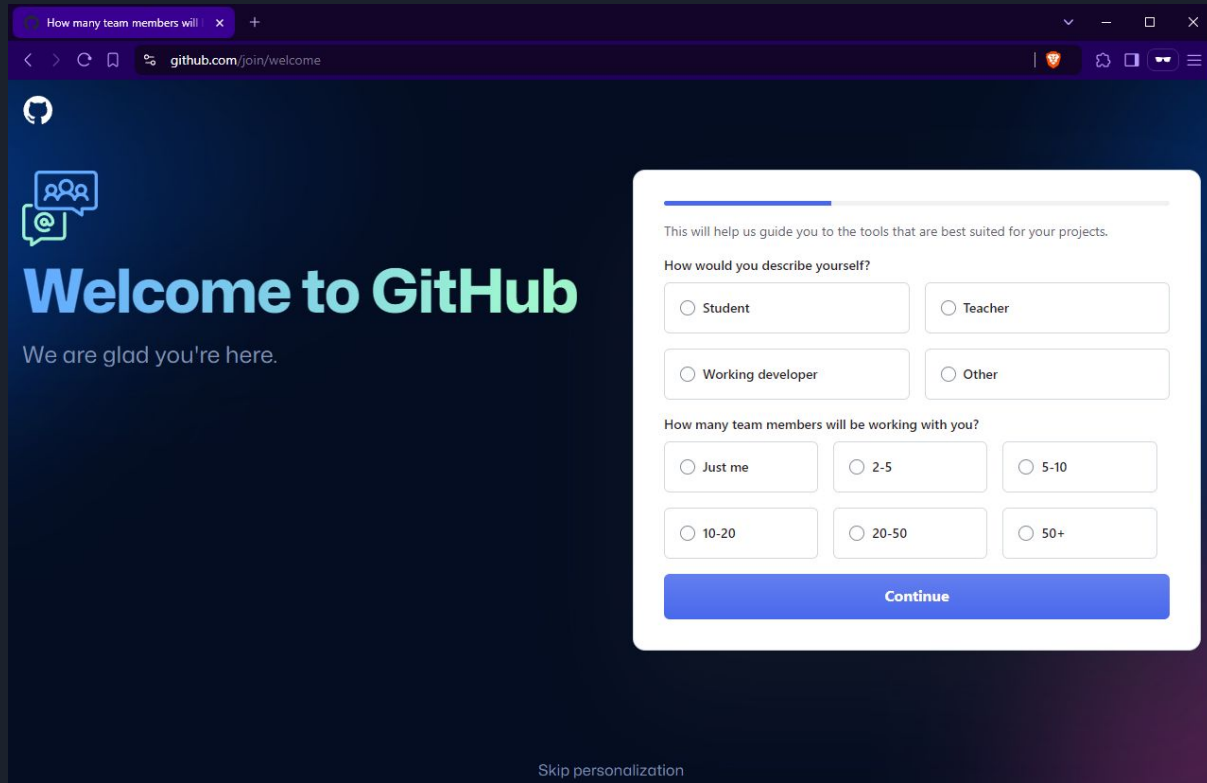
Sign in

[Sign in with a passkey](#)

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



# Personalization (Optional)



The screenshot shows the GitHub welcome page in a web browser. The browser's address bar displays 'github.com/join/welcome'. The page features the GitHub logo and the text 'Welcome to GitHub' in a large, bold font, followed by 'We are glad you're here.' Below this, a white modal form is displayed. The form contains two sections: 'How would you describe yourself?' and 'How many team members will be working with you?'. Each section has four radio button options. At the bottom of the form is a blue 'Continue' button. A link for 'Skip personalization' is located at the bottom center of the page.

How many team members will be working with you?

This will help us guide you to the tools that are best suited for your projects.

How would you describe yourself?

☐ Student ☐ Teacher

☐ Working developer ☐ Other

How many team members will be working with you?

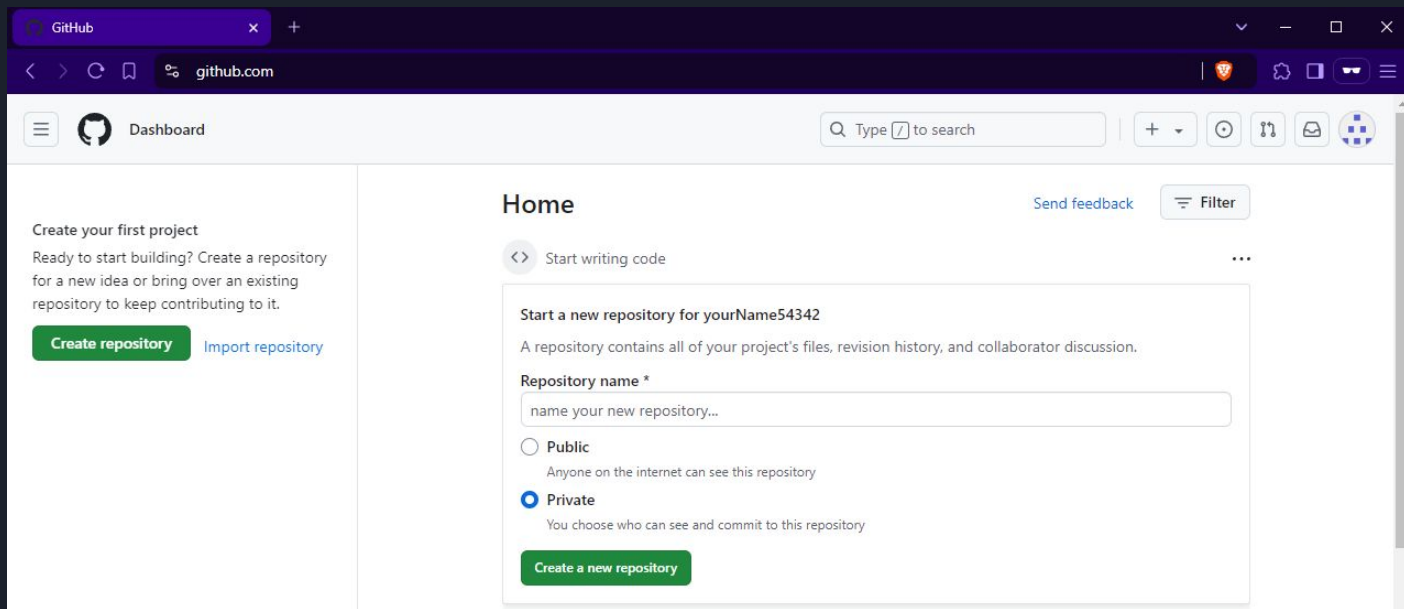
☐ Just me ☐ 2-5 ☐ 5-10

☐ 10-20 ☐ 20-50 ☐ 50+

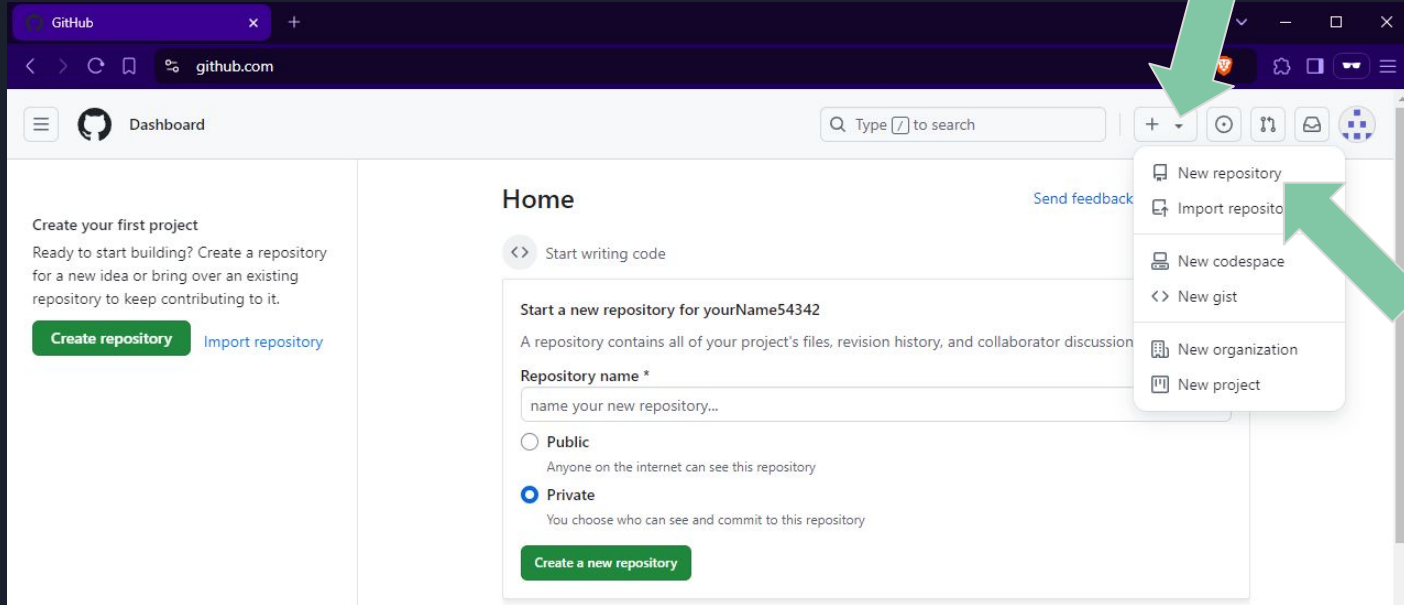
Continue

Skip personalization

# GitHub Dashboard



# Create Repository (Step 1)

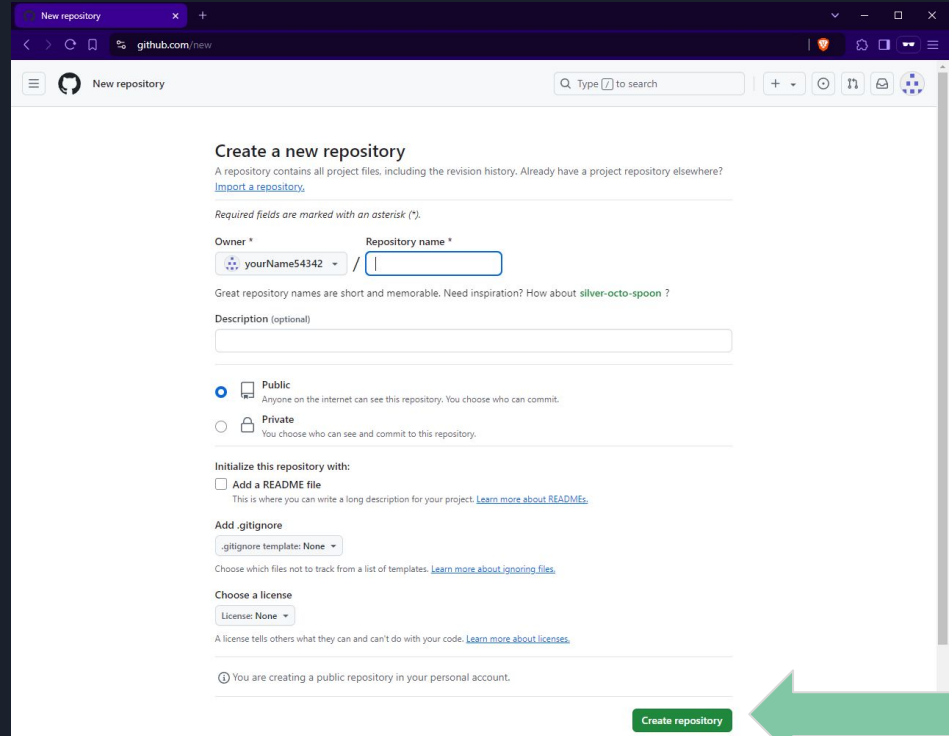


The screenshot shows the GitHub dashboard interface. On the left, there's a sidebar with the GitHub logo and the word 'Dashboard'. The main content area is titled 'Home' and includes a section for 'Start writing code'. Below this, there's a form to 'Start a new repository for yourName54342'. The form includes a text input for the repository name, radio buttons for 'Public' and 'Private' visibility, and a 'Create a new repository' button. In the top right corner, there's a navigation bar with a search bar and a '+' button. A green arrow points to the '+' button, and another green arrow points to the 'New repository' option in the dropdown menu that appears when the '+' button is clicked.

1. Click this arrow

2. New repository

# Create Repository (Step 2)



New repository

github.com/new

Search Type to search

## 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 \* yourName54342 / Repository name \*

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

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

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](#)

Create repository

# Your Repository

The screenshot shows a web browser window displaying a GitHub repository page. The browser's address bar shows the URL `github.com/yourName54342/Programming-workshop`. The repository page header includes the repository name `yourName54342 / Programming-workshop`, a search bar, and navigation links for `Code`, `Issues`, `Pull requests`, `Actions`, `Projects`, `Wiki`, `Security`, `Insights`, and `Settings`. The repository is public and has 1 watch, 0 forks, and 0 stars. Two main action cards are visible: 'Set up GitHub Copilot' and 'Add collaborators to this repository'. A 'Quick setup' section at the bottom provides instructions for cloning the repository via HTTPS or SSH, with the HTTPS URL being `https://github.com/yourName54342/Programming-workshop.git`. It also includes links for creating a new file, uploading an existing file, and adding a README, LICENSE, and .gitignore.

yourName54342 / Programming-workshop

Search Type to search

<> Code Issues Pull requests Actions Projects Wiki Security Insights Settings

Programming-workshop Public

Pin Unwatch 1 Fork 0 Star 0

**Set up GitHub Copilot**  
Use GitHub's AI pair programmer to autocomplete suggestions as you code.  
[Get started with GitHub Copilot](#)

**Add collaborators to this repository**  
Search for people using their GitHub username or email address.  
[Invite collaborators](#)

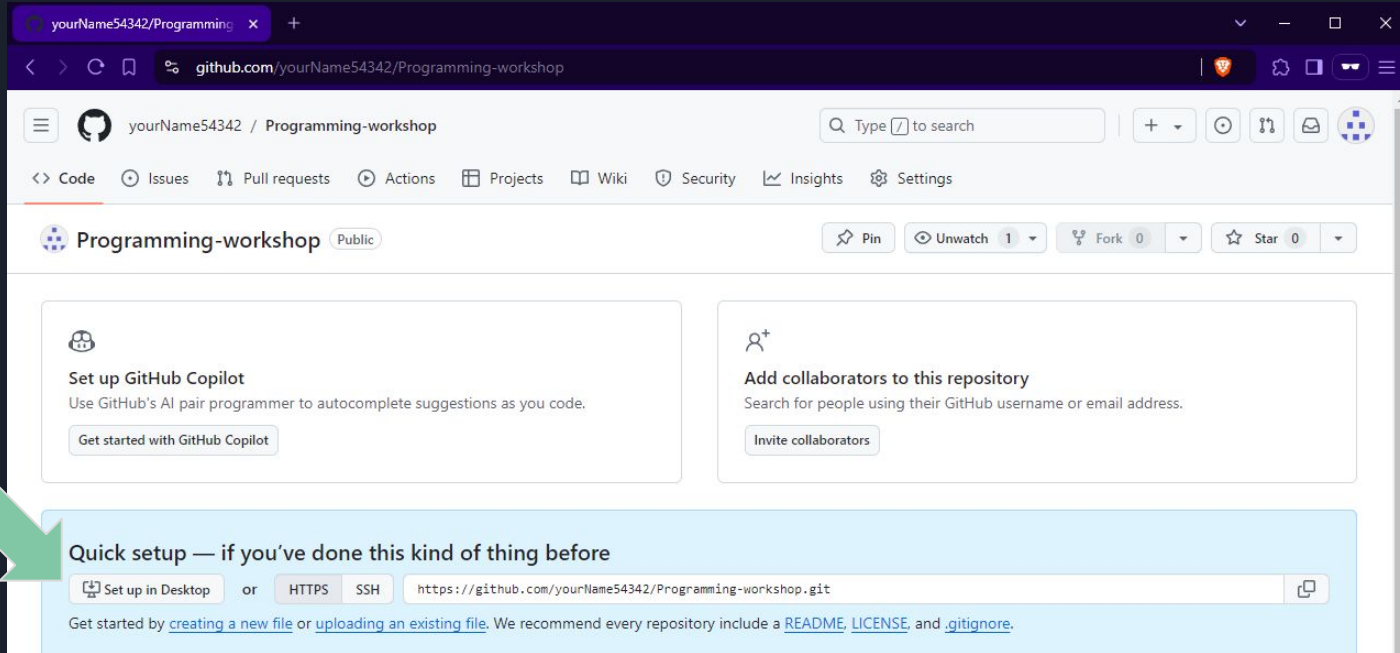
**Quick setup — if you've done this kind of thing before**

Set up in Desktop or **HTTPS** **SSH** `https://github.com/yourName54342/Programming-workshop.git`

Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

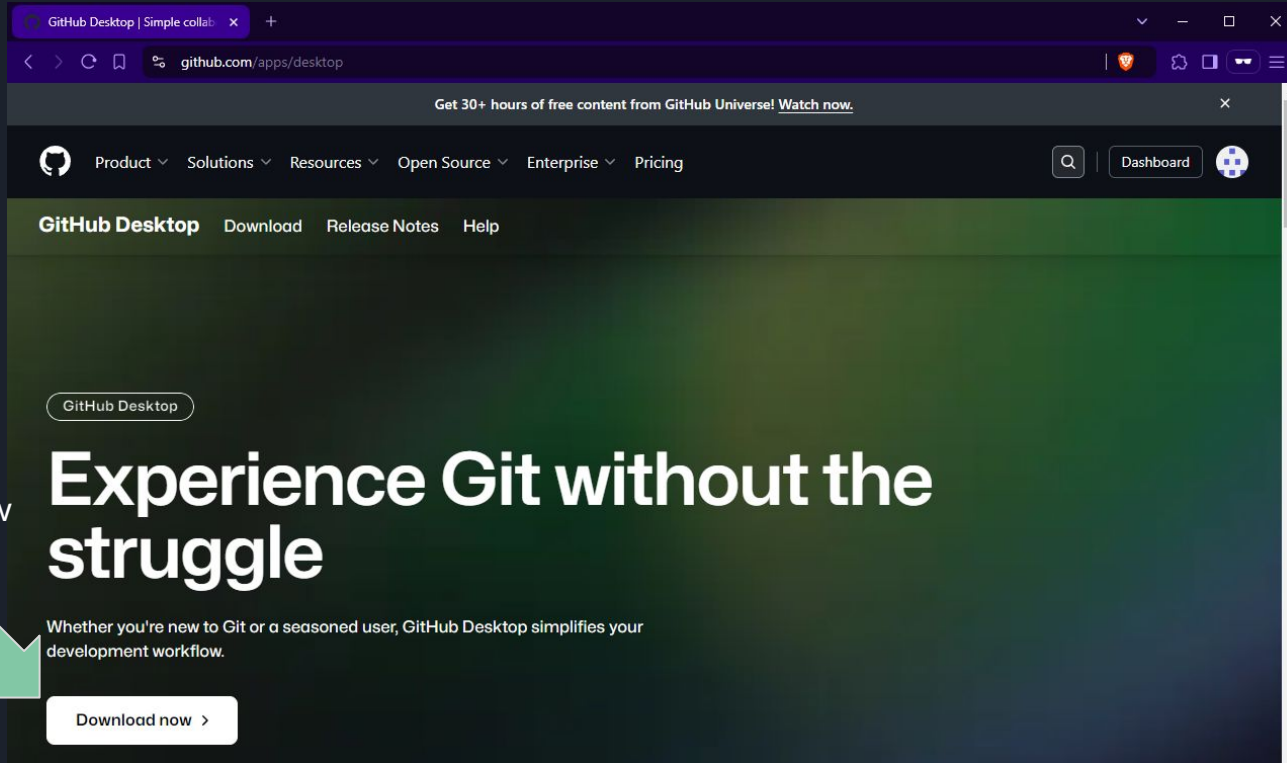
# Setup Repository

GitHub  
Desktop



The screenshot shows a web browser window displaying a GitHub repository page. The address bar shows the URL `github.com/yourName54342/Programming-workshop`. The repository name is `yourName54342 / Programming-workshop` and it is marked as `Public`. The page features navigation tabs for `Code`, `Issues`, `Pull requests`, `Actions`, `Projects`, `Wiki`, `Security`, `Insights`, and `Settings`. Below the repository name, there are buttons for `Pin`, `Unwatch` (1), `Fork` (0), and `Star` (0). The main content area has two cards: `Set up GitHub Copilot` and `Add collaborators to this repository`. At the bottom, a light blue box titled `Quick setup — if you've done this kind of thing before` contains a button `Set up in Desktop`, the text `or`, buttons `HTTPS` and `SSH`, and a text input field with the URL `https://github.com/yourName54342/Programming-workshop.git`. Below this, a line of text says: `Get started by creating a new file or uploading an existing file. We recommend every repository include a README, LICENSE, and .gitignore.`

# GitHub Desktop Download



Download now

# Download (Windows/ macOS)

For Windows



[Download for Windows \(64bit\)](#)

## Try beta features and help improve future releases

Experience the latest features and bug fixes before they're released.

[Check out Beta](#)

## Prefer the MSI?

Need to package to install across your organization?

[Download for Windows \(MSI\)](#)

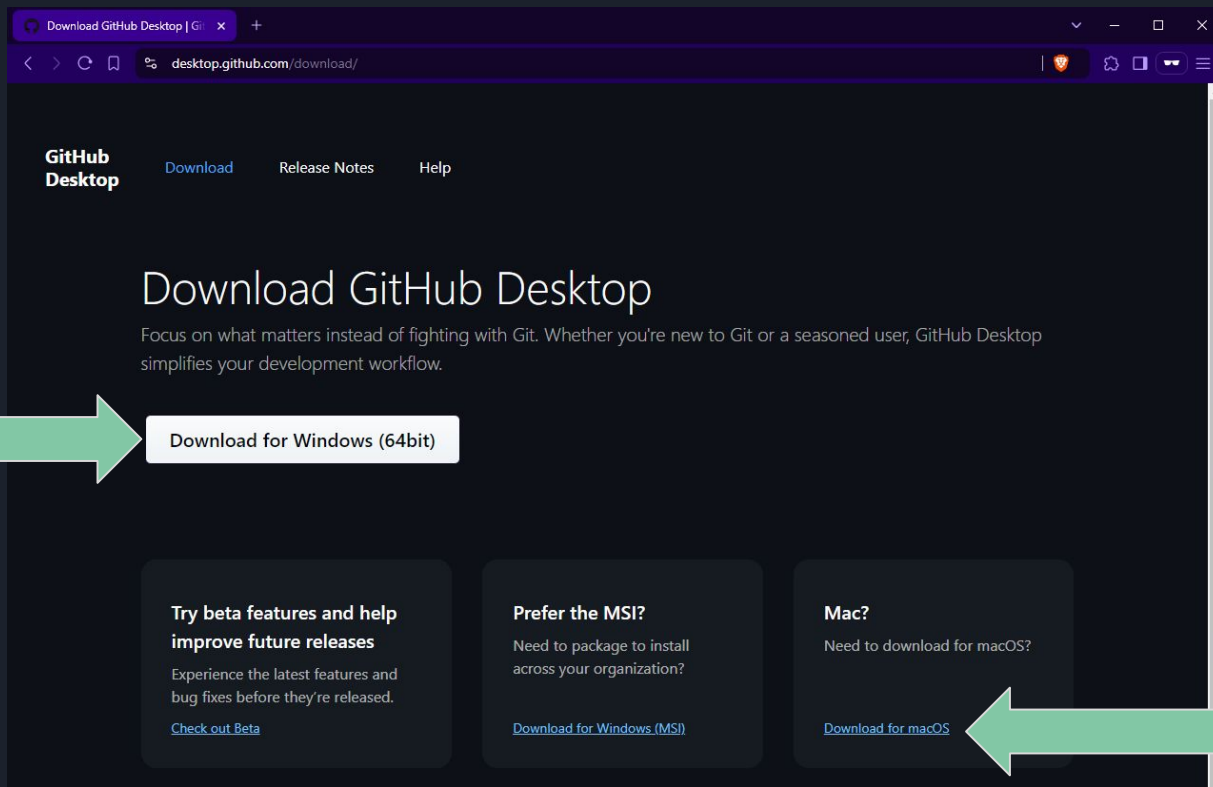
## Mac?

Need to download for macOS?

[Download for macOS](#)



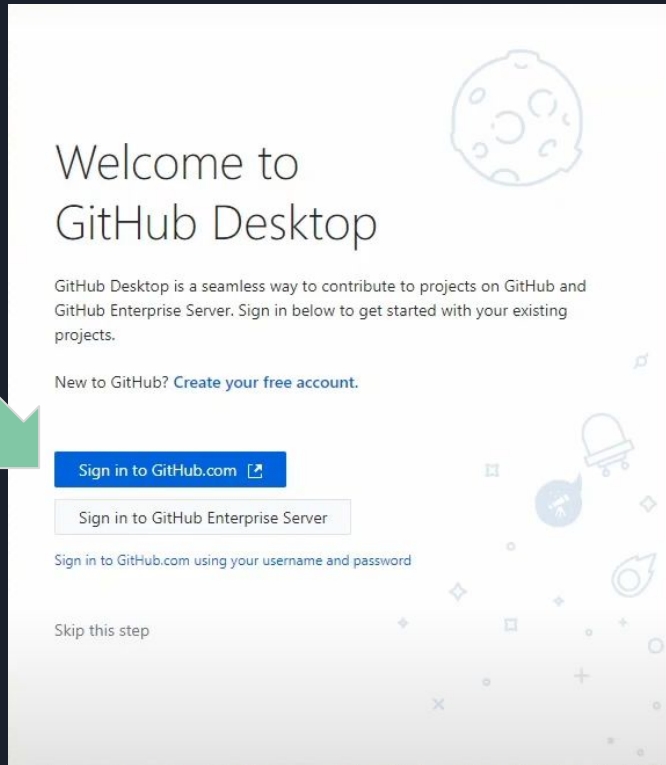
For macOS



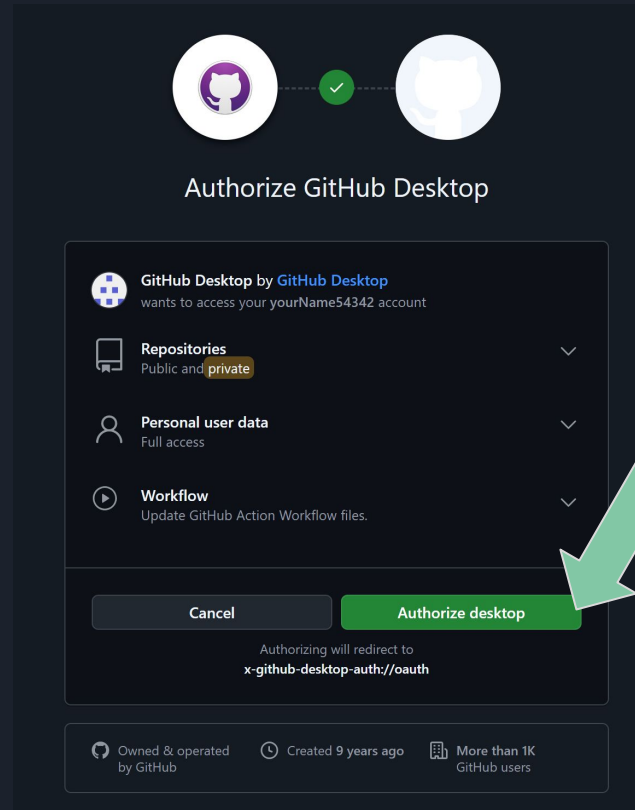


# GitHub Desktop Login (Step 1)

Sign in to  
GitHub.com

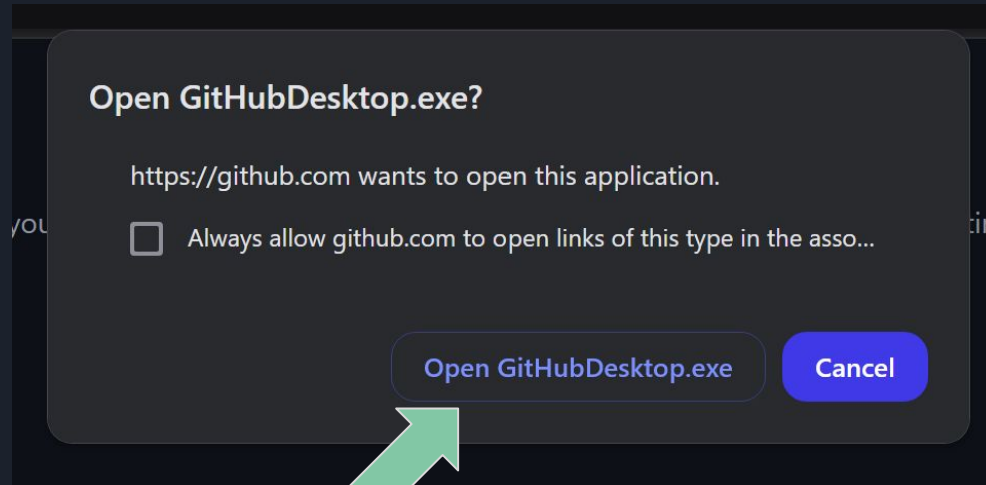


# GitHub Desktop Login (Step 2)



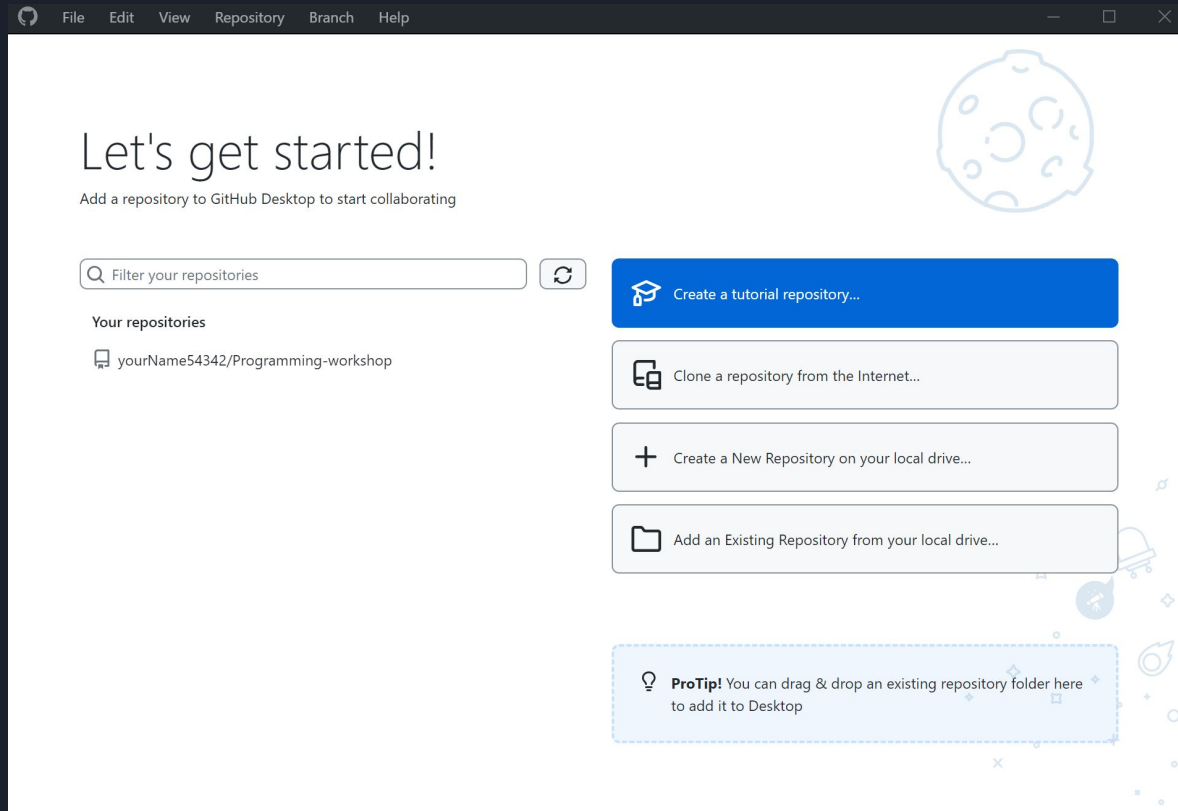
Authorize  
desktop

# GitHub Desktop Login (Step 3)



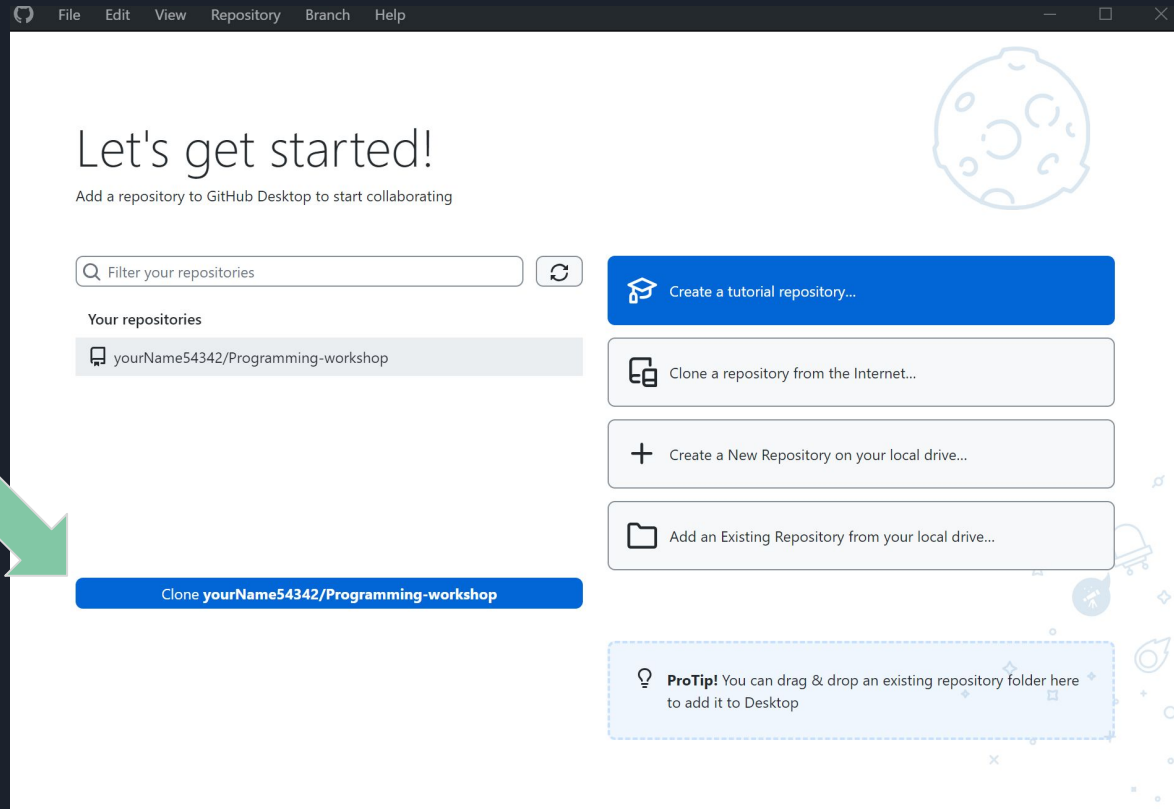
Open  
GitHubDesktop.exe

# GitHub Desktop



# Clone a repository (Step 1)

Clone



# Clone a repository (Step 2)

Clone a repository

GitHub.com

GitHub Enterprise

URL

Repository URL or GitHub username and repository  
( hubot/cool-repo )

https://github.com/yourName54342/Programming-workshop.git

Local path

C:\Users\Hanso\Documents\GitHub\Programming-workshop

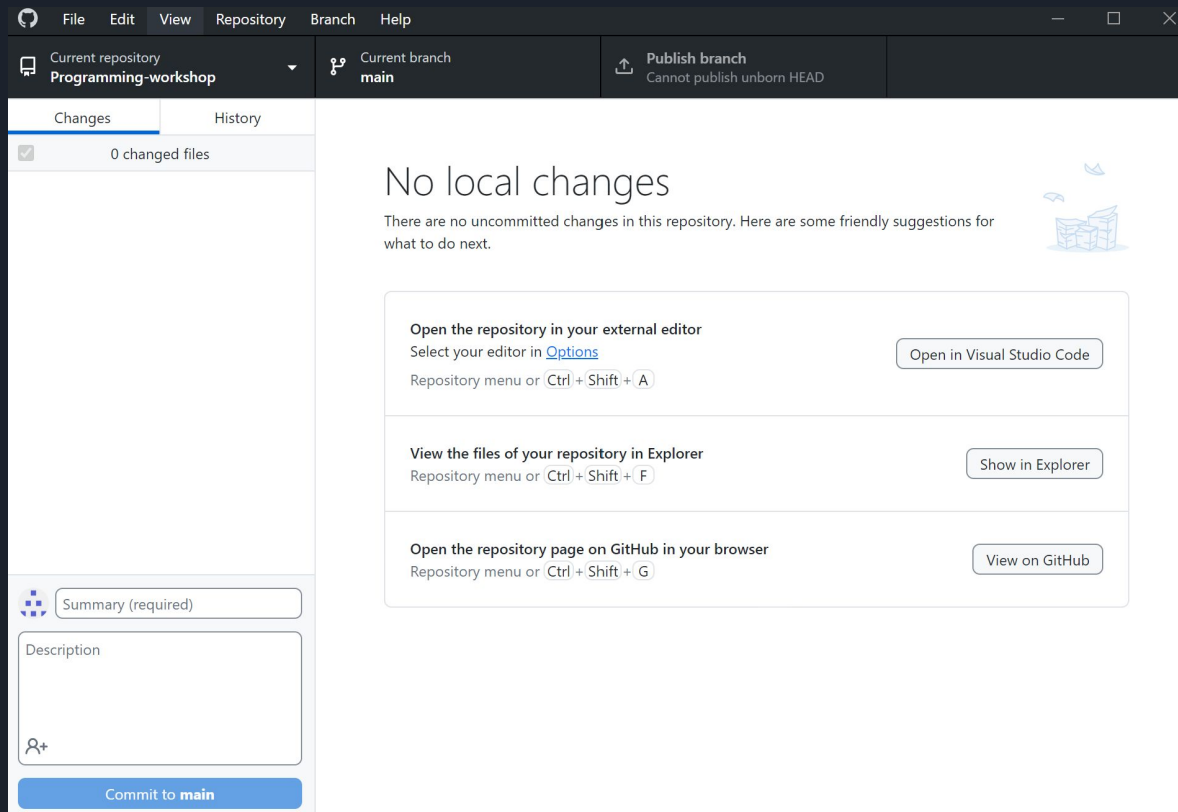
Choose...

Clone

Cancel

Clone

# Cloned Repository



# Changes

File Edit View Repository Branch Help

Current repository  
Programming-workshop

Current branch  
main

Publish branch  
Cannot publish unborn HEAD

Changes 1 History

1 changed file

TemplateClass.java

TemplateClass.java

@@ -0,0 +1,5 @@

✓✓

1

+ public class TemplateClass {

✓✓

2

+ public static void main(String[] args) {

✓✓

3

+ // Code to run goes here

✓✓

4

+ }

✓✓

5

+ }

Create TemplateClass.java

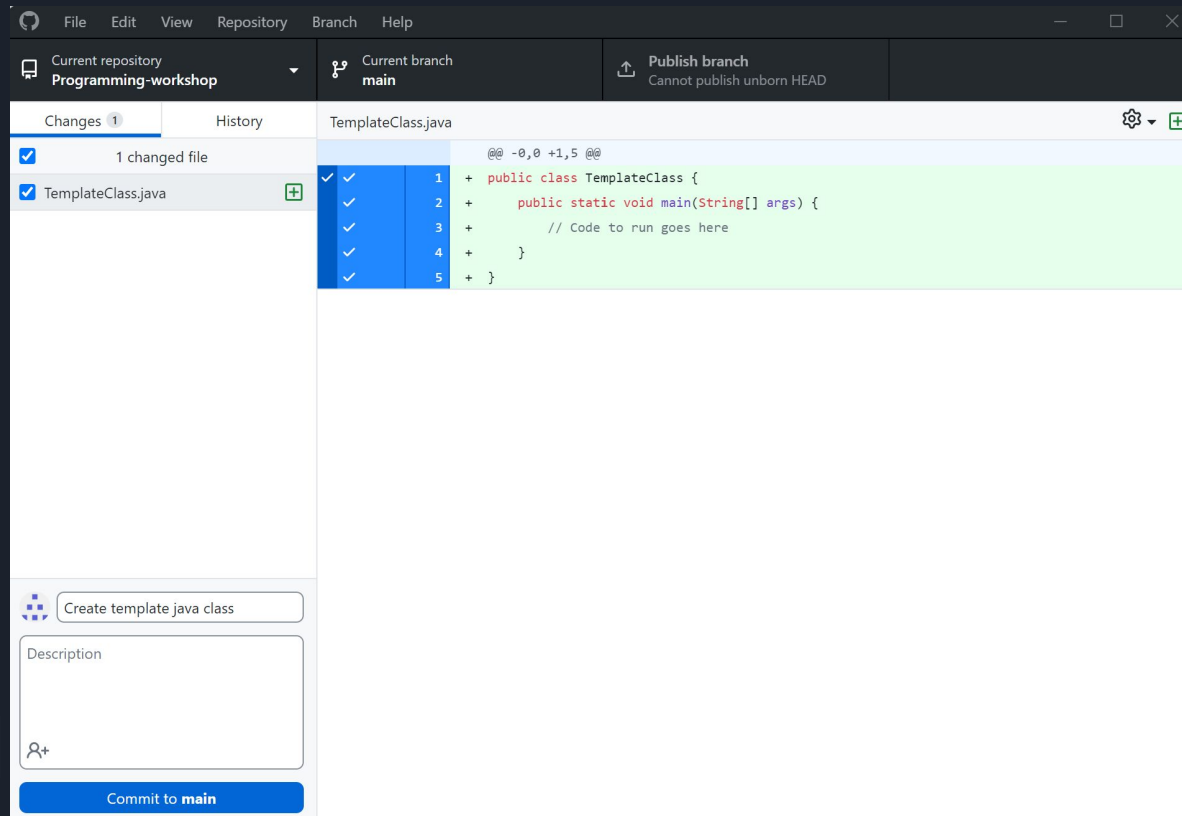
Description

⊕

Commit to main



# Commit



The screenshot shows the IntelliJ IDEA commit dialog. The top bar includes menus for File, Edit, View, Repository, Branch, and Help. Below this, the 'Current repository' is set to 'Programming-workshop' and the 'Current branch' is 'main'. A 'Publish branch' button is visible with the warning 'Cannot publish unborn HEAD'. The 'Changes' tab is active, showing '1 changed file' and 'TemplateClass.java'. The file's content is displayed in a diff view, showing a new class definition. At the bottom, there is a 'Create template java class' button, a 'Description' text area, a user selection icon, and a 'Commit to main' button.

File Edit View Repository Branch Help

Current repository  
Programming-workshop

Current branch  
main

Publish branch  
Cannot publish unborn HEAD

Changes 1 History

1 changed file

TemplateClass.java

@@ -0,0 +1,5 @@

```
+ public class TemplateClass {  
+     public static void main(String[] args) {  
+         // Code to run goes here  
+     }  
+ }
```

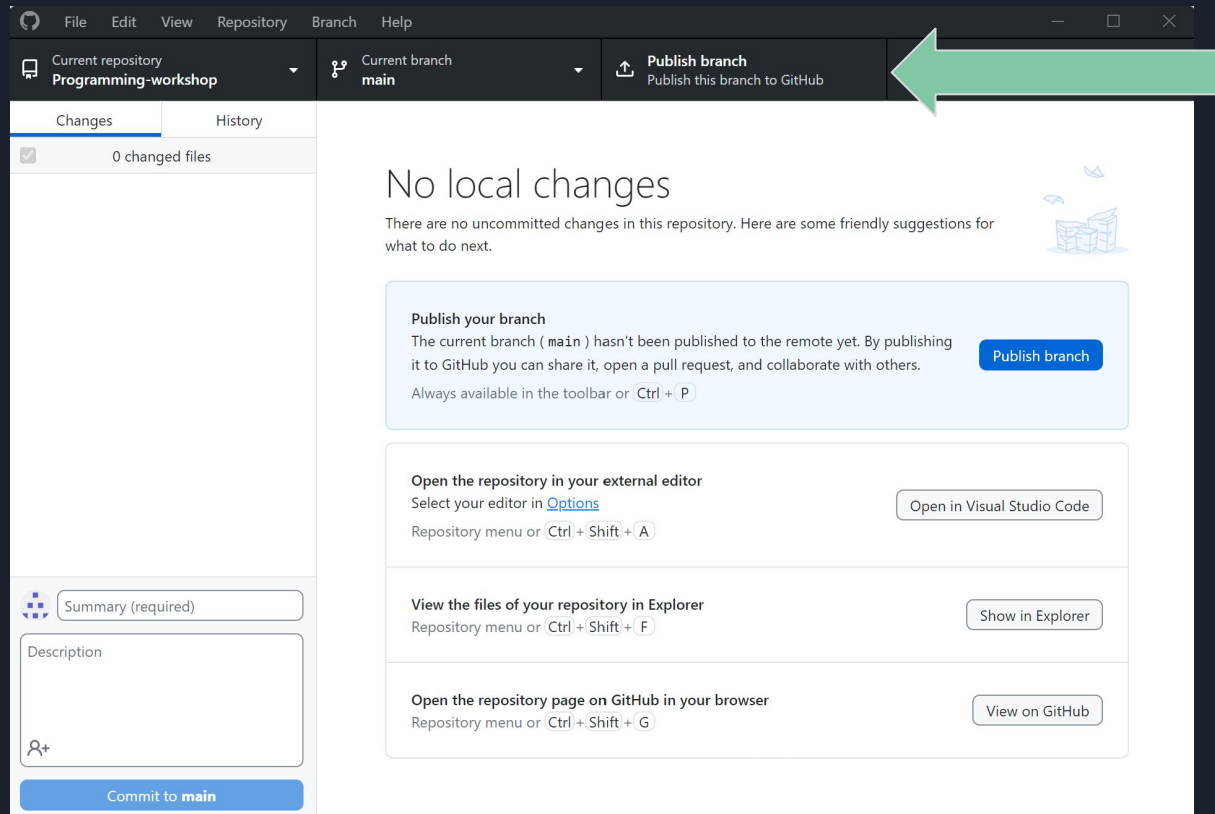
Create template java class

Description

Commit to main

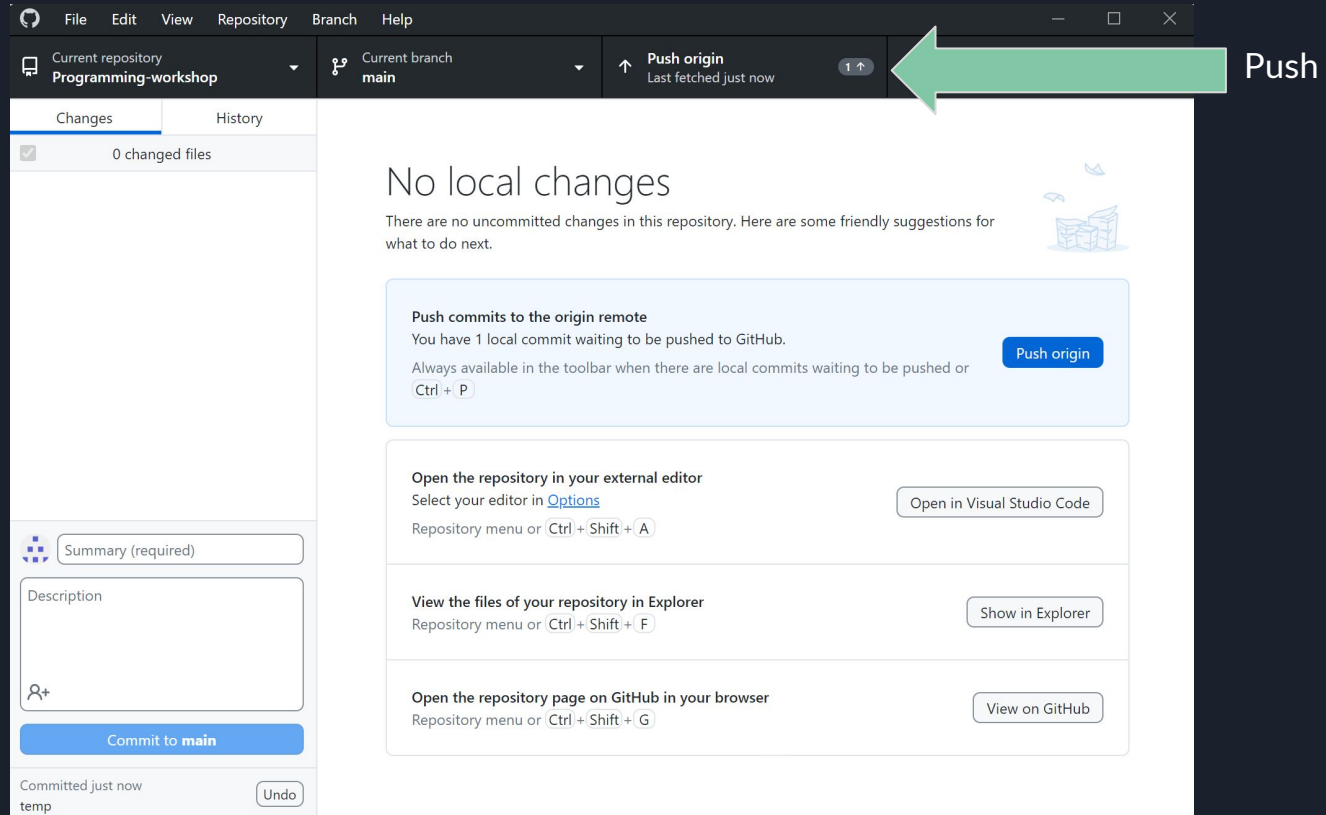
Commit

# Publish branch



Publish branch

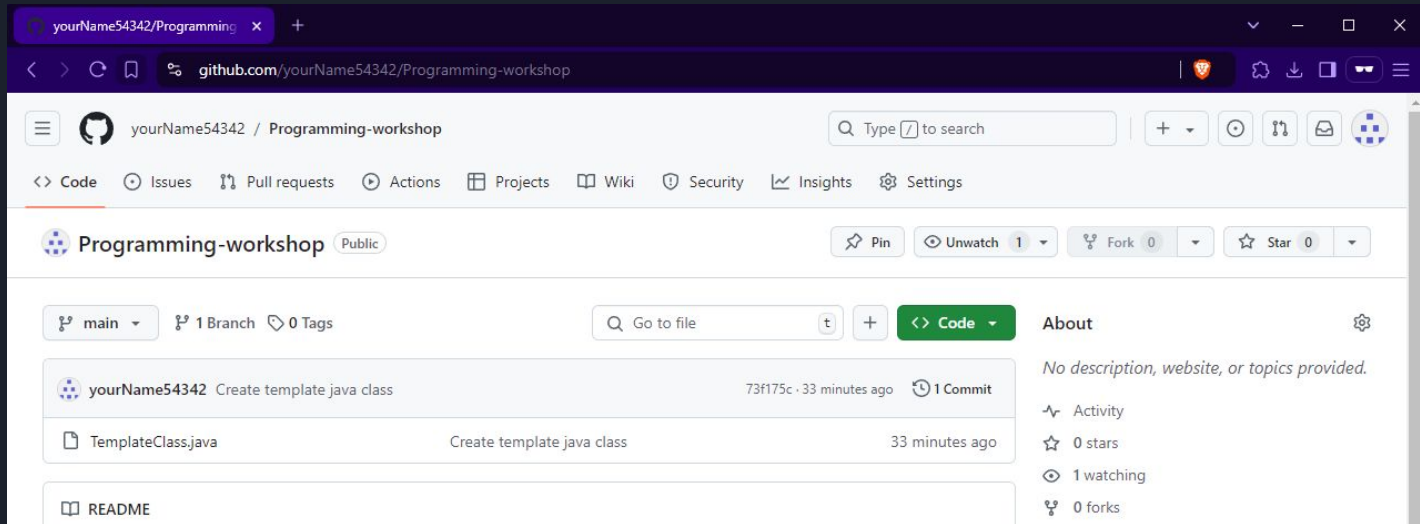
# Pushing to GitHub



The screenshot shows the Visual Studio interface with the following elements:

- Toolbar:** Includes 'Current repository' (Programming-workshop), 'Current branch' (main), and 'Push origin' (Last fetched just now, 1 ↑). A green arrow points to the 'Push origin' button, with the word 'Push' written next to it.
- Left Panel:** Shows 'Changes' and 'History' tabs. Under 'Changes', it says '0 changed files'. Below this is a 'Summary (required)' section with a 'Description' text area and a 'Commit to main' button.
- Main Area:** Displays 'No local changes' with a message: 'There are no uncommitted changes in this repository. Here are some friendly suggestions for what to do next.' Below this are three suggestions:
  - Push commits to the origin remote:** 'You have 1 local commit waiting to be pushed to GitHub. Always available in the toolbar when there are local commits waiting to be pushed or Ctrl + P.' Includes a 'Push origin' button.
  - Open the repository in your external editor:** 'Select your editor in [Options](#). Repository menu or Ctrl + Shift + A.' Includes an 'Open in Visual Studio Code' button.
  - View the files of your repository in Explorer:** 'Repository menu or Ctrl + Shift + F.' Includes a 'Show in Explorer' button.
  - Open the repository page on GitHub in your browser:** 'Repository menu or Ctrl + Shift + G.' Includes a 'View on GitHub' button.
- Bottom Panel:** Shows 'Committed just now temp' and an 'Undo' button.

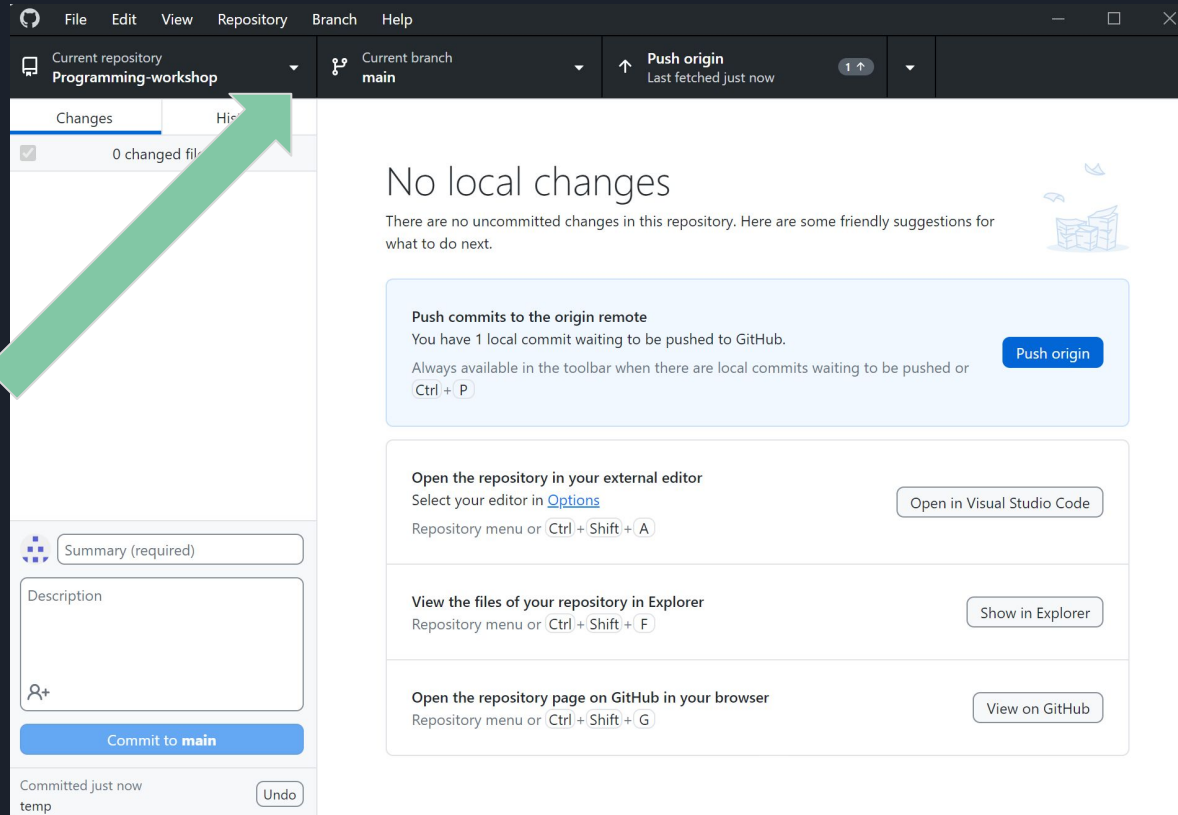
# Changes pushed



The screenshot shows a web browser window displaying a GitHub repository page. The address bar shows the URL `github.com/yourName54342/Programming-workshop`. The repository name is `yourName54342 / Programming-workshop`, marked as `Public`. The page includes navigation tabs for `Code`, `Issues`, `Pull requests`, `Actions`, `Projects`, `Wiki`, `Security`, `Insights`, and `Settings`. Below the repository name, there are buttons for `Pin`, `Unwatch` (with a count of 1), `Fork` (with a count of 0), and `Star` (with a count of 0). The main content area shows the `main` branch with 1 branch and 0 tags. A search bar labeled `Go to file` is present. A commit by `yourName54342` is displayed, titled `Create template.java class`, with commit hash `73f175c` and timestamp `33 minutes ago`. The commit message is `Create template.java class`. Below the commit message, a file `TemplateClass.java` is listed. To the right of the commit, there is an `About` section with the text `No description, website, or topics provided.` and a list of activity: `0 stars`, `1 watching`, and `0 forks`.

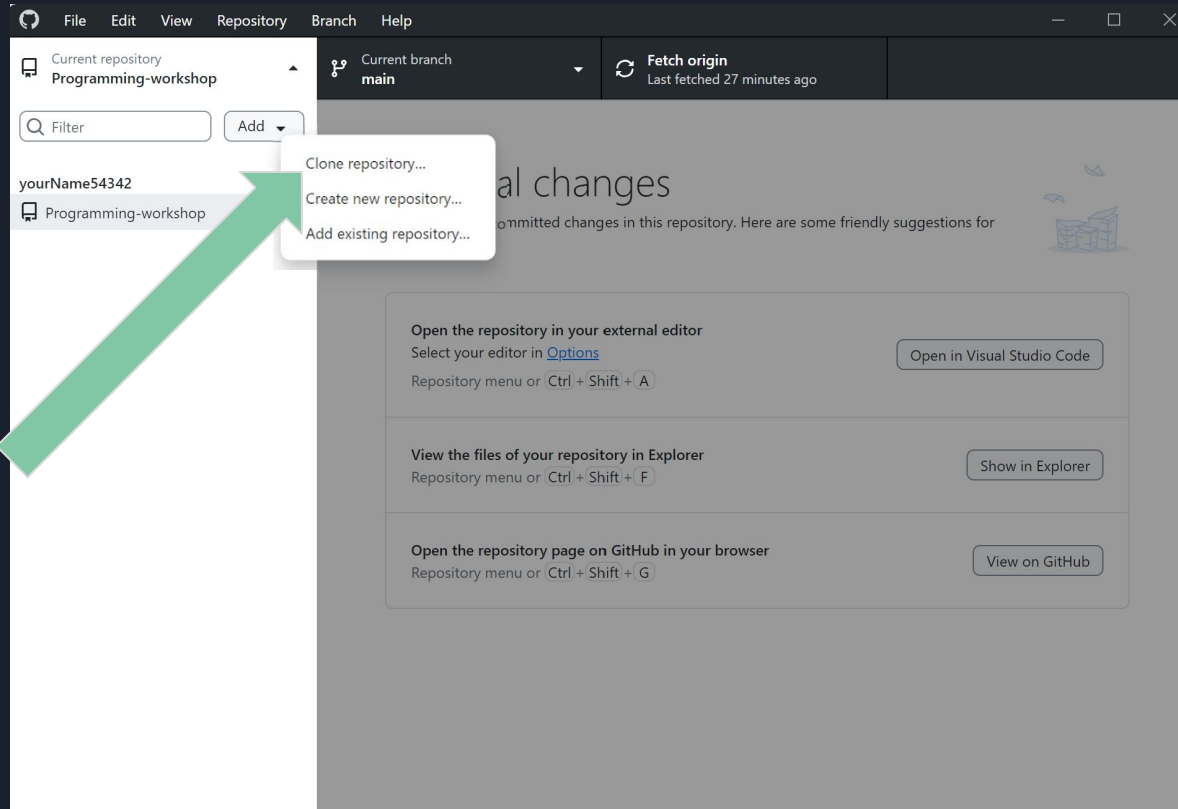
# Cloning in the future (Step 1)

Open  
Dropdown  
Menu



# Cloning in the future (Step 2)

Clone  
repository



# Cloning in the future (Step 3)

Add link of  
repository

Clone a repository

GitHub.com    GitHub Enterprise    URL

Repository URL or GitHub username and repository  
( hubot/cool-repo )

URL or username/repository

Local path

C:\Users\Hanso\Documents\GitHub    Choose...

Clone    Cancel

Clone