



## **LLM Bootcamp Projects Handbook**

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# 1.Set-up Virtual Machine using RDP files

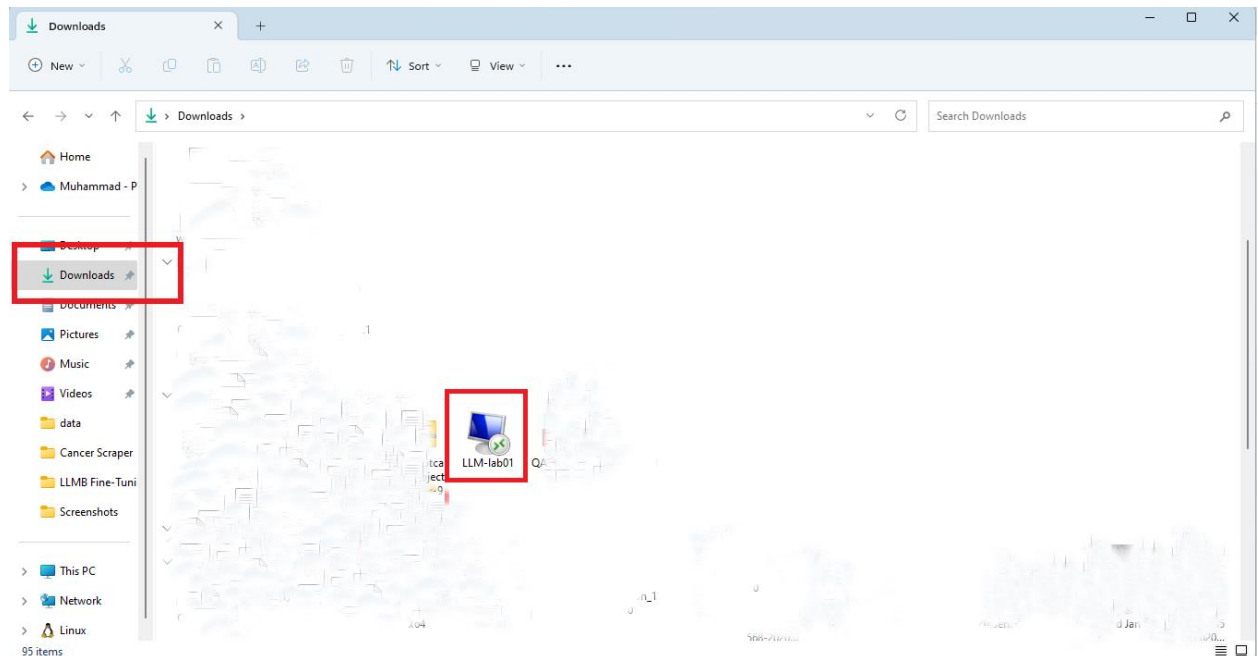
You are given a link. Click on that link.

For Example:

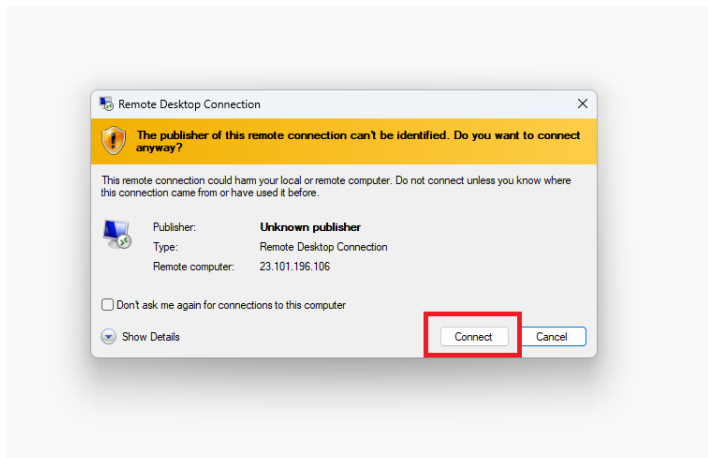
<https://stpydspipeline.blob.core.windows.net/llmlabscontainer/llmlab03.rdp>

It will download a virtual machine.

1. Go to the **Downloads** directory and double-click on the virtual machine icon. You will see the Icon as in the image below:



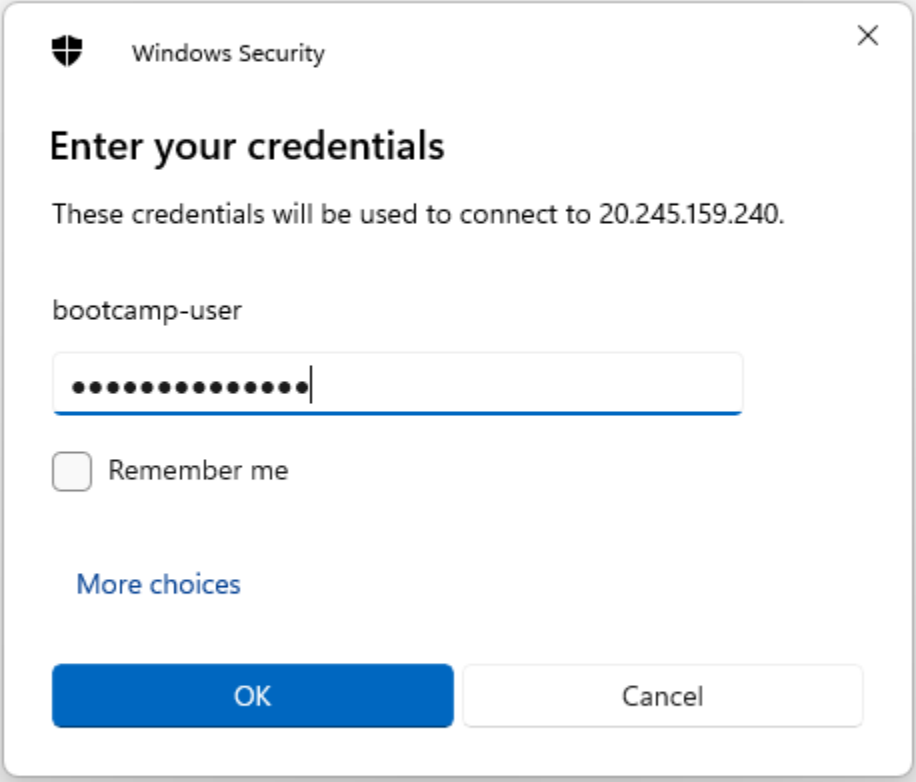
2. Now click on **“Connect”**.



3. Enter the **username and password** and click on **Ok**.

**Username:** **bootcamp-user**

**Password:** **Use the password provided to you via E-mail**

A Windows Security dialog box titled "Enter your credentials". It contains a message stating "These credentials will be used to connect to 20.245.159.240." Below this, the username "bootcamp-user" is displayed. A password field is shown with 12 dots and a cursor at the end. There is an unchecked checkbox labeled "Remember me" and a link "More choices" in blue. At the bottom are "OK" and "Cancel" buttons.

Windows Security

### Enter your credentials

These credentials will be used to connect to 20.245.159.240.

bootcamp-user

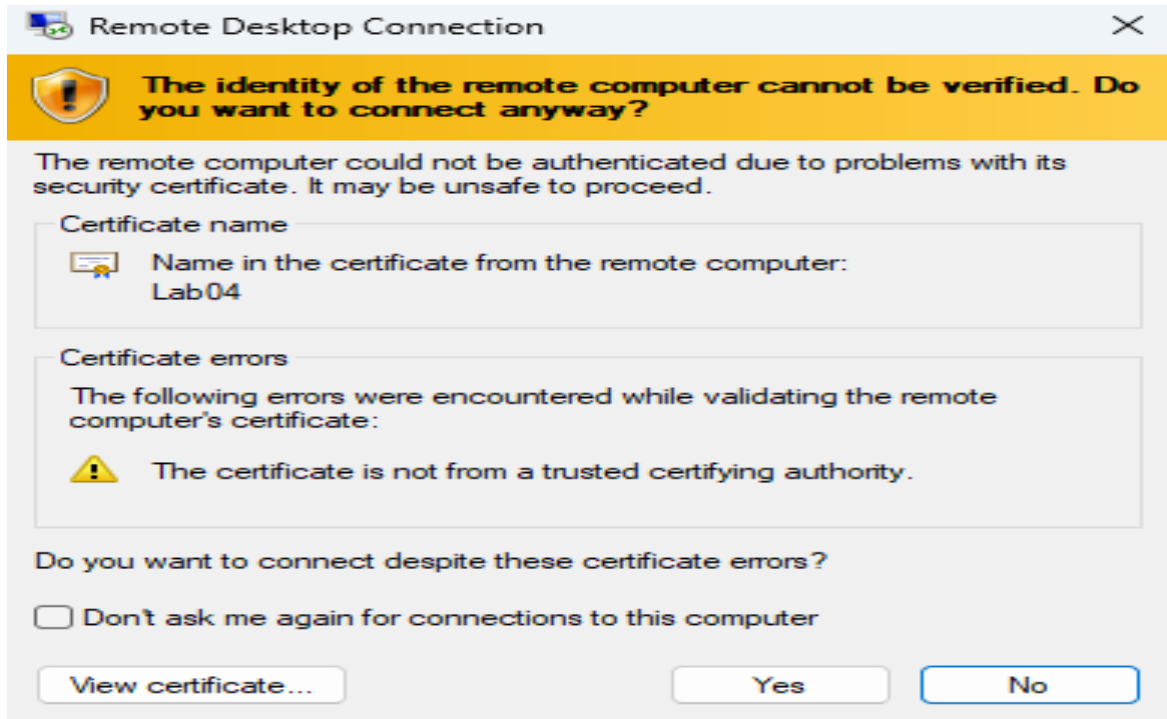
.....|

☐ Remember me

[More choices](#)

OK Cancel

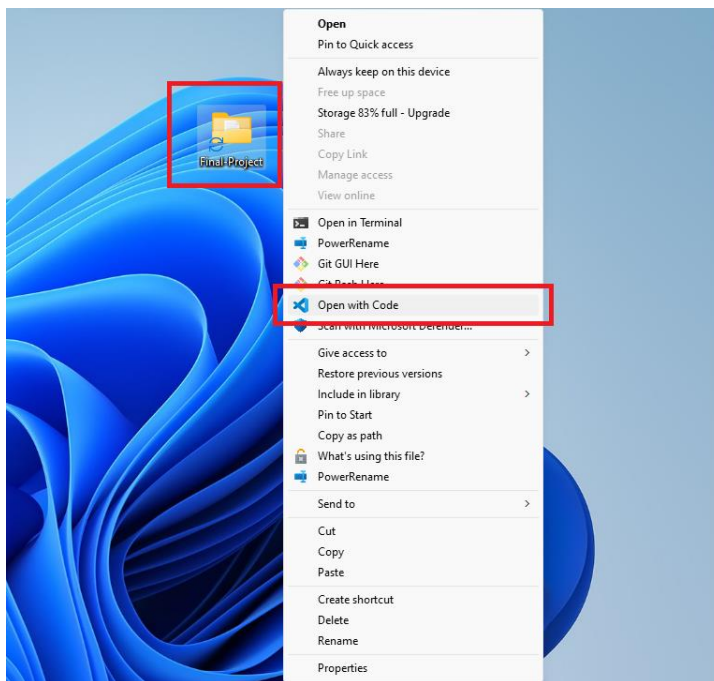
4. You will see the following. Now click on **Yes**. Your VM is set-up now.



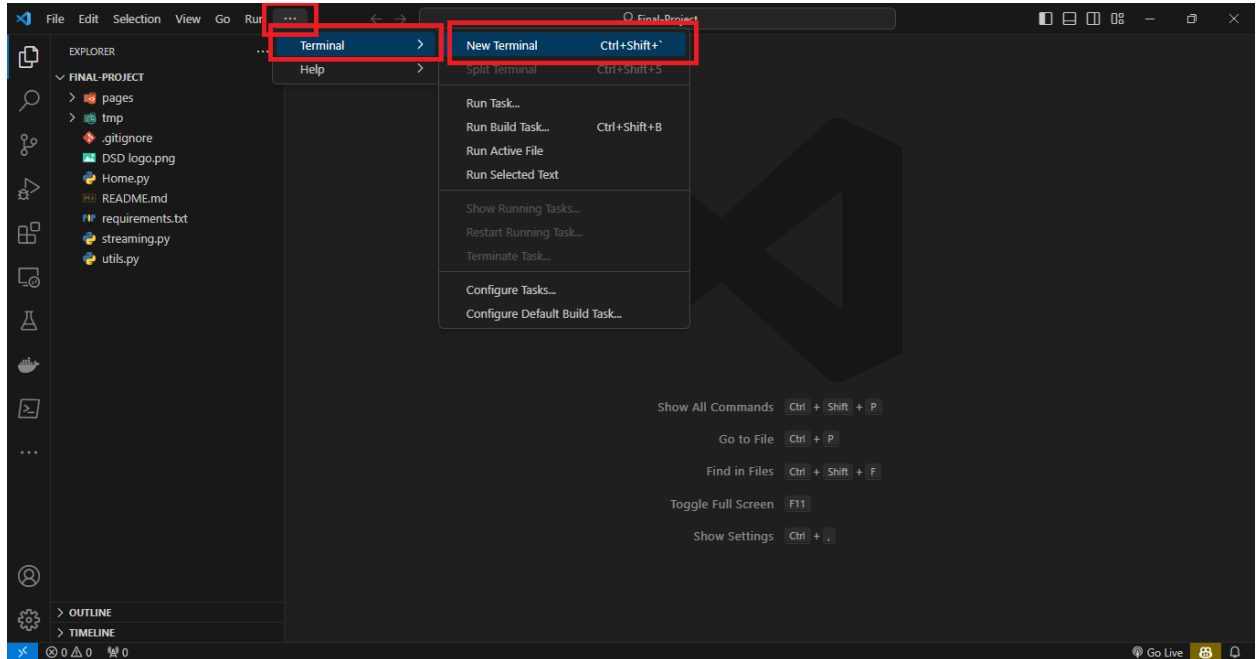
## 2. Project setup and execution

### 2.1 Setting-up project code in VS code

1. You can **open** project in Visual Studio Code simply by **right clicking** on the **Final-Project** folder icon on the **Desktop** then click on **Open with Code**.



2. On the top there is the menu bar of Visual Studio Code. Select ... (3-dots) > **Terminal** > **New Terminal** or use the shortcut **Ctrl + Shift + `**

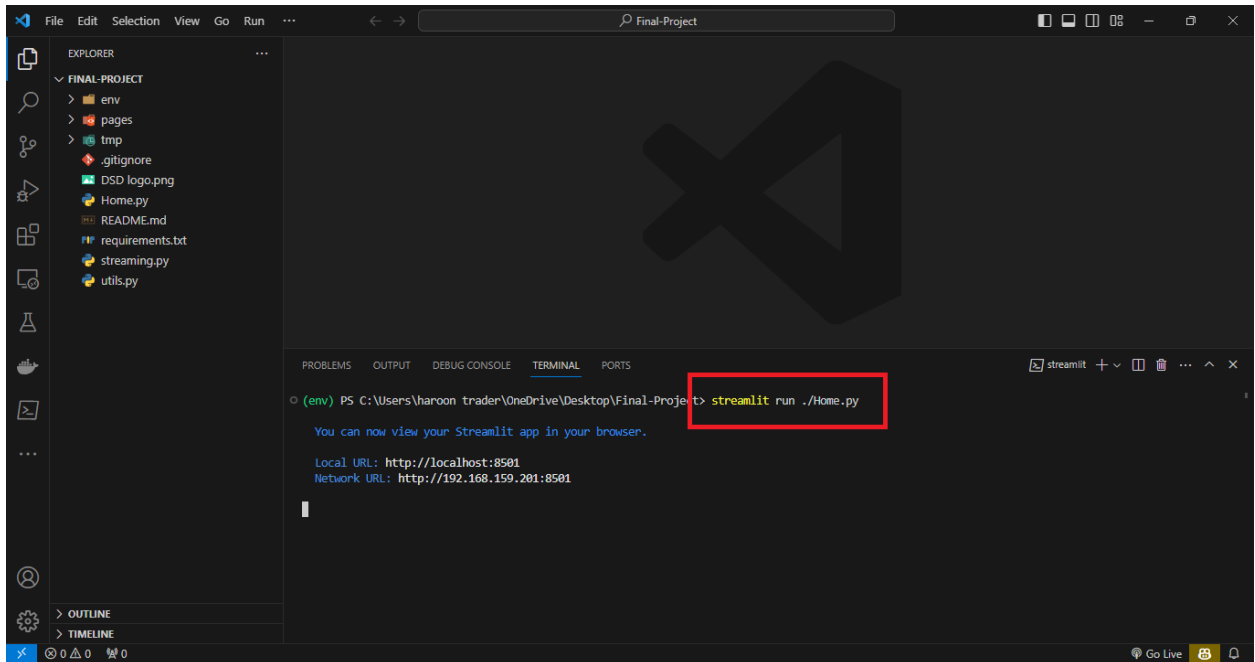




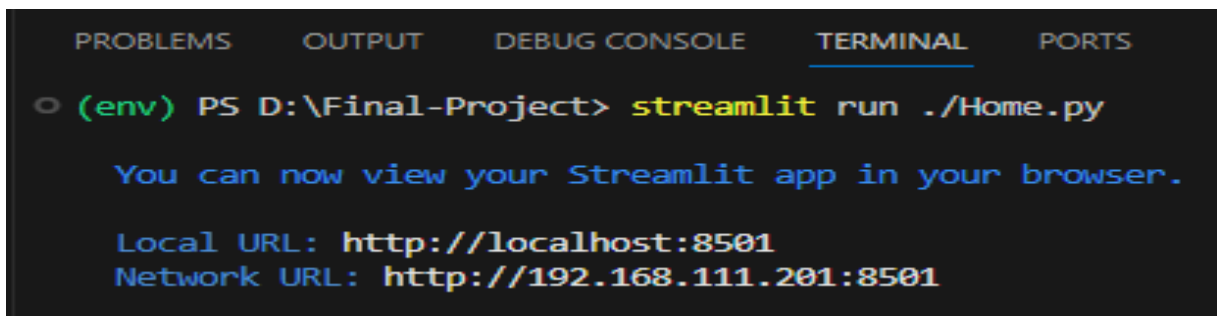
## 2.2 Project Execution

Firstly , In the terminal of VS code write **pip install -r requirements.txt**

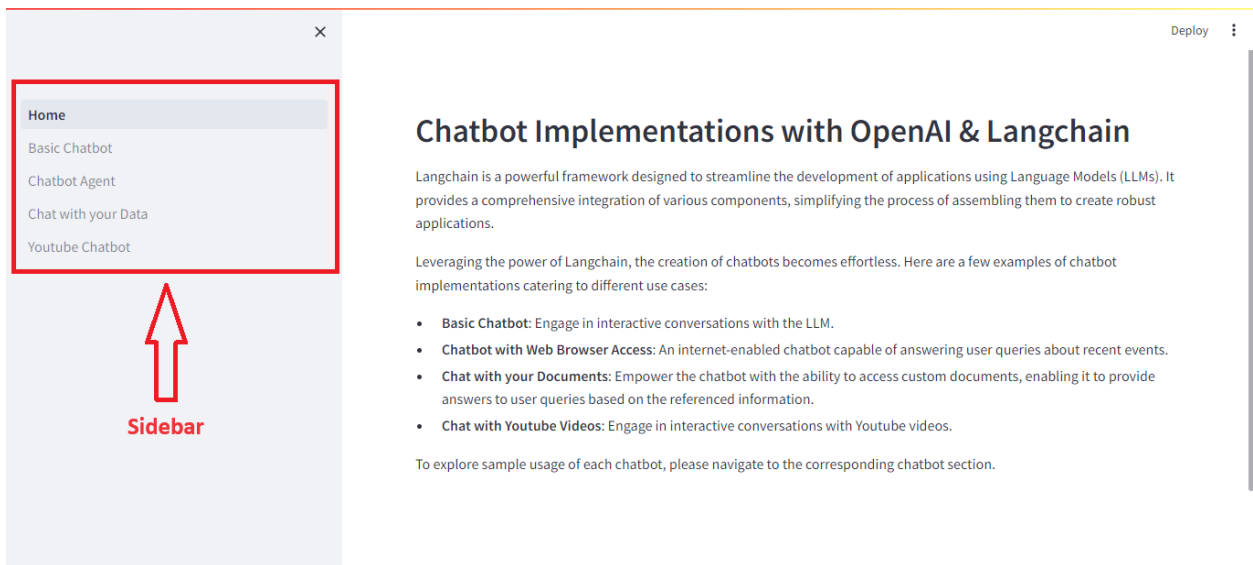
1. In the terminal of VS code write **streamlit run ./Home.py** and press Enter



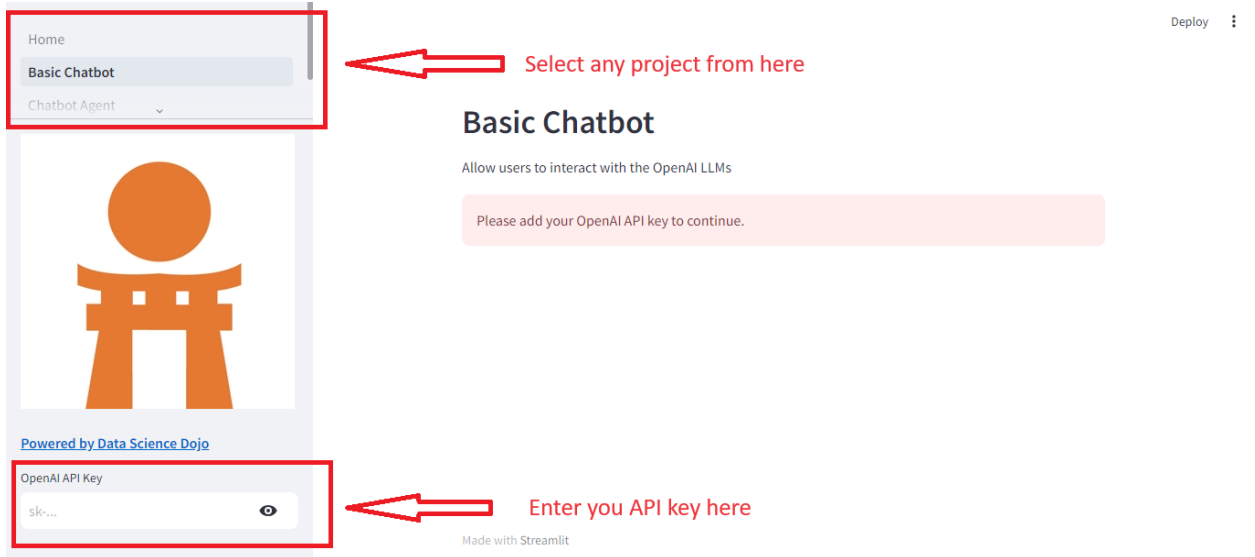
A closer picture



2. You will be redirected to the **Home Page**. It contains the meta related info about the projects. You can see on the **left pane (sidebar)** we have four projects
- Basic Chatbot
  - Chatbot Agent
  - Chat with your data
  - YouTube Chatbot



3. You will be able to navigate through the projects using the left sidebar. Select any of the project from the left sidebar, scroll down the sidebar a bit and enter the **secret API key** given to you and press **Enter**.



The screenshot shows the 'Basic Chatbot' interface. On the left is a sidebar with a scrollable list of projects: 'Home', 'Basic Chatbot', and 'Chatbot Agent'. A red box highlights this sidebar, and a red arrow points to it with the text 'Select any project from here'. The main area displays the 'Basic Chatbot' title, a description 'Allow users to interact with the OpenAI LLMs', and a pink message box saying 'Please add your OpenAI API key to continue.'. Below this is a text input field for the 'OpenAI API Key' with a red box around it and a red arrow pointing to it with the text 'Enter you API key here'. The input field contains 'sk-...' and has an eye icon to toggle visibility. At the bottom, it says 'Powered by Data Science Dojo' and 'Made with Streamlit'. A 'Deploy' button is in the top right corner.

4. To use the **Basic Chatbot**, select it from the sidebar and enter your query in the textbox provided and press **Enter**.

The screenshot displays the 'Basic Chatbot' interface. On the left sidebar, 'Basic Chatbot' is selected under the 'Home' section. The main chat area is titled 'Basic Chatbot' and includes a sub-header 'Allow users to interact with the OpenAI LLMs'. It features a sample query 'What is OpenAI?' and a response explaining that OpenAI is an artificial intelligence research laboratory and company, founded in December 2015 by Elon Musk, Sam Altman, Greg Brockman, Ilya Sutskever, John Schulman, and Wojciech Zaremba. The response also mentions OpenAI's mission to ensure that artificial general intelligence (AGI) benefits all of humanity and lists various areas of research including reinforcement learning, natural language processing, computer vision, and robotics. At the bottom, a red box highlights the input field with the placeholder text 'Ask me anything!' and a red arrow points to it from the right. Below the red box, the text 'You can enter you query here' is written in red.

Home

Basic Chatbot

Chatbot Agent

Powered by [Data Science Dojo](#)

OpenAI API Key

Deploy

### Basic Chatbot

Allow users to interact with the OpenAI LLMs

How can I help you?

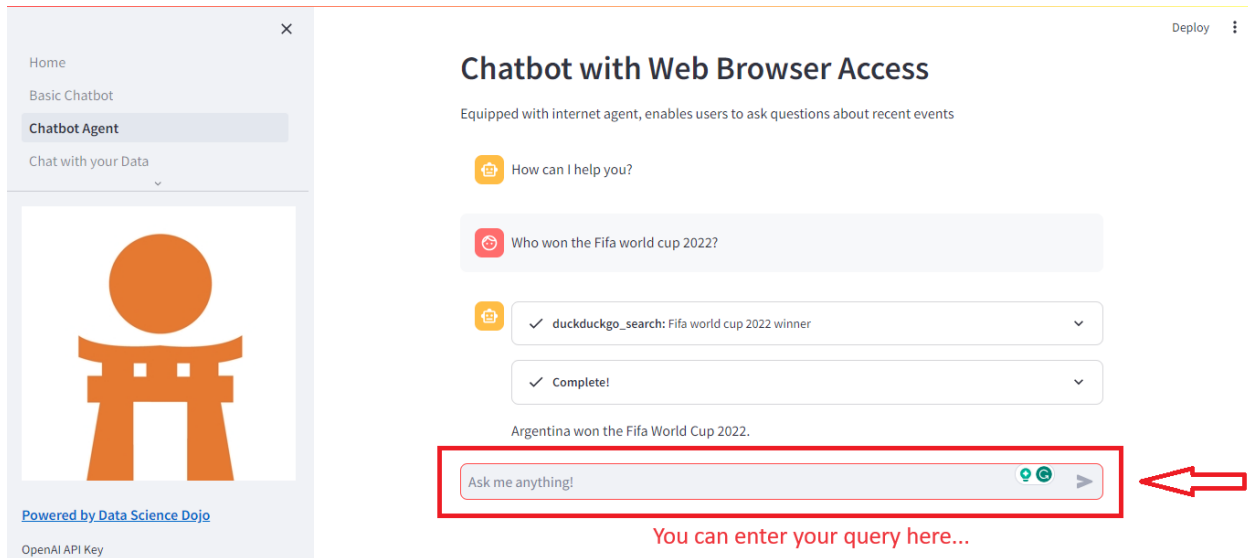
What is OpenAI?

OpenAI is an artificial intelligence research laboratory and company. It was founded in December 2015 by Elon Musk, Sam Altman, Greg Brockman, Ilya Sutskever, John Schulman, and Wojciech Zaremba. OpenAI's mission is to ensure that artificial general intelligence (AGI) benefits all of humanity. AGI refers to highly autonomous systems that outperform humans at most economically valuable work. OpenAI conducts research in various areas of AI, including reinforcement learning, natural language processing, computer vision, and robotics. They also

Ask me anything!

You can enter you query here

5. To use the **Chatbot Agent**, select it from the sidebar and enter your query in the textbox provided and press **Enter**.



The screenshot displays the Chatbot Agent interface. On the left is a sidebar with a close button (X) at the top. It contains a 'Home' link, a 'Basic Chatbot' link, and the 'Chatbot Agent' link, which is highlighted. Below these links is a 'Chat with your Data' section with a dropdown arrow. The main content area is titled 'Chatbot with Web Browser Access' and includes a description: 'Equipped with internet agent, enables users to ask questions about recent events'. A 'Deploy' button with a dropdown arrow is in the top right corner. The chat history shows a user asking 'Who won the Fifa world cup 2022?' and the bot responding with 'Argentina won the Fifa World Cup 2022.'. Below the history is a text input field with the placeholder 'Ask me anything!'. The input field has a red border and a red arrow pointing to it from the right. Below the input field, the text 'You can enter your query here...' is displayed.

Home

Basic Chatbot

**Chatbot Agent**

Chat with your Data

Powered by [Data Science Dojo](#)

OpenAI API Key

### Chatbot with Web Browser Access

Equipped with internet agent, enables users to ask questions about recent events

Deploy

How can I help you?

Who won the Fifa world cup 2022?

✓ duckduckgo\_search: Fifa world cup 2022 winner

✓ Complete!

Argentina won the Fifa World Cup 2022.

Ask me anything!

You can enter your query here...


6. To use the **Chat with your Data**, select it from the sidebar.

Home

Basic Chatbot

Chatbot Agent

**Chat with your Data**




Powered by [Data Science Dojo](#)

OpenAI API Key

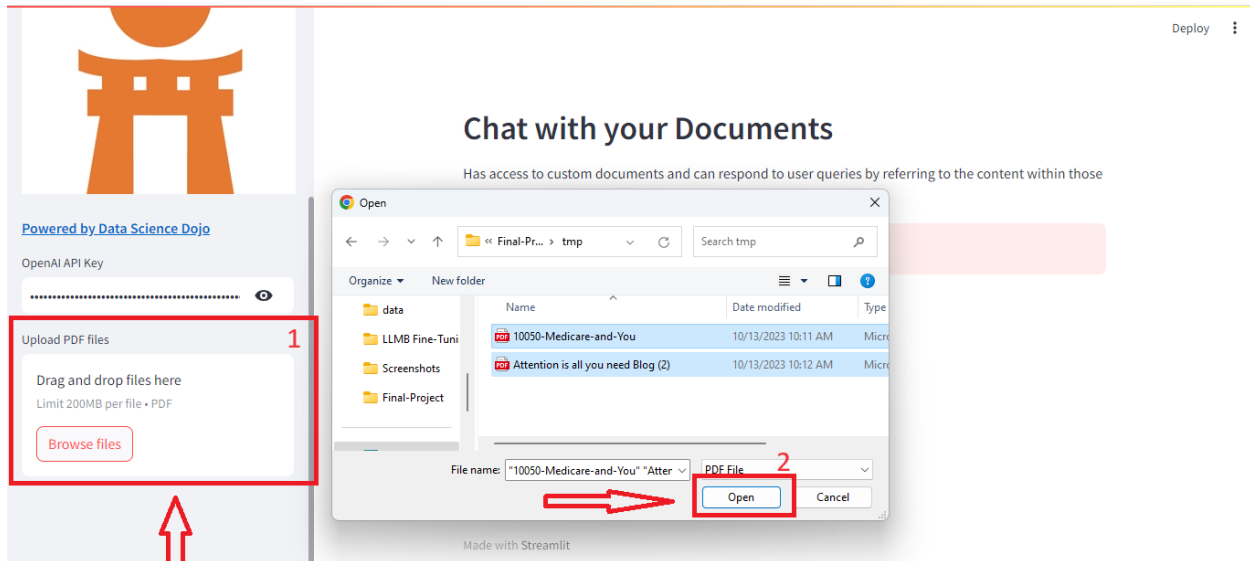
Deploy

## Chat with your Documents

Has access to custom documents and can respond to user queries by referring to the content within those documents

 How can I help you?

- a. Scroll the sidebar down, click on **Browse files**, select the pdfs from the **data** folder on desktop and press **open**.



b. Now, enter your query about the pdfs in the textbox provided and press **Enter**.

Deploy

## Chat with your Documents

Has access to custom documents and can respond to user queries by referring to the content within those documents

How can I help you?

ALS stands for?

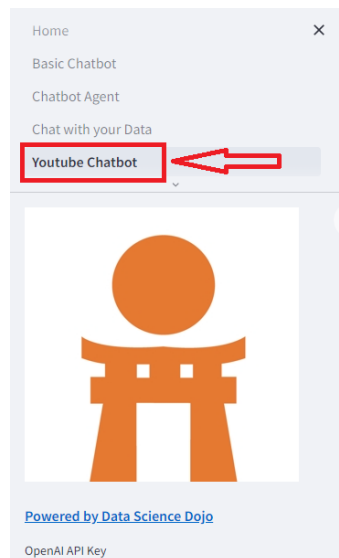
ALS stands for Amyotrophic lateral sclerosis.

Ask me anything!

Enter your query here



7. To use the **YouTube Chatbot**, select it from the sidebar.



## Youtube Chatbot

Allows users to chat with youtube videos using the OpenAI LLMs




How can I help you?

Please add your OpenAI API key to continue.

Made with Streamlit

8. Now, Enter the youtube video link and press **Enter**.

Youtube Chatbot



Powered by [Data Science Dojo](#)

OpenAI API Key  
.....


Enter Youtube URLs

Deploy


⋮

## Youtube Chatbot

Allows users to chat with youtube videos using the OpenAI LLMs

 How can I help you?

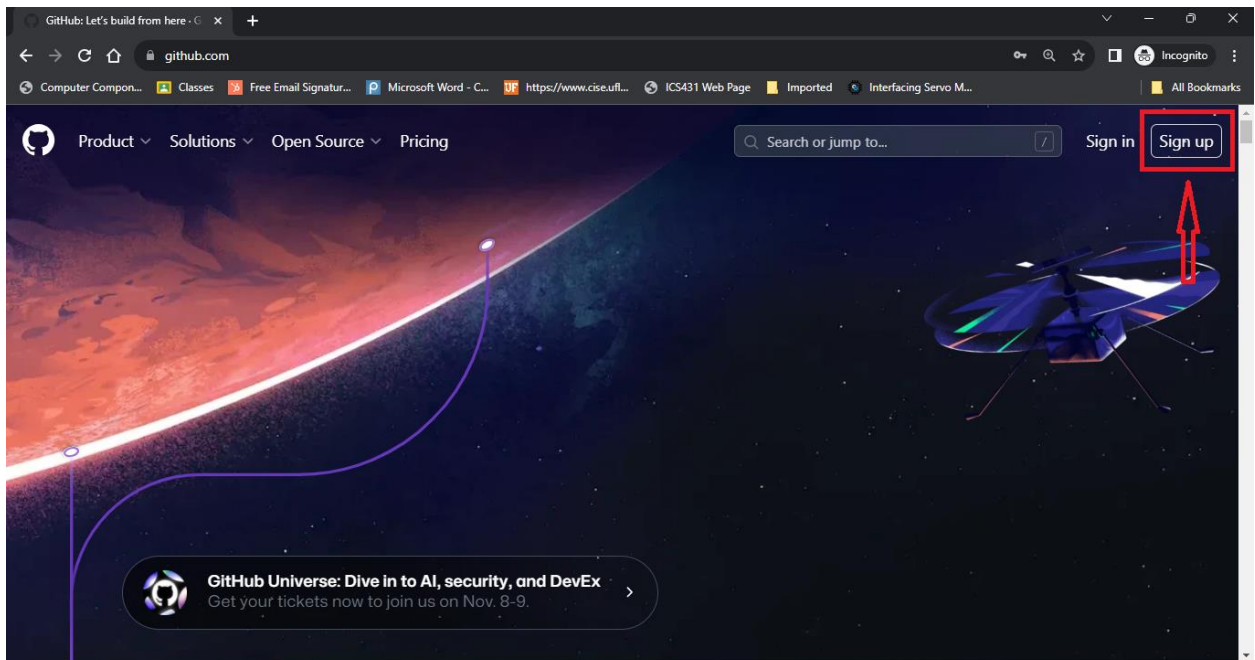
Ask me anything! ➤

 **Enter Link here**

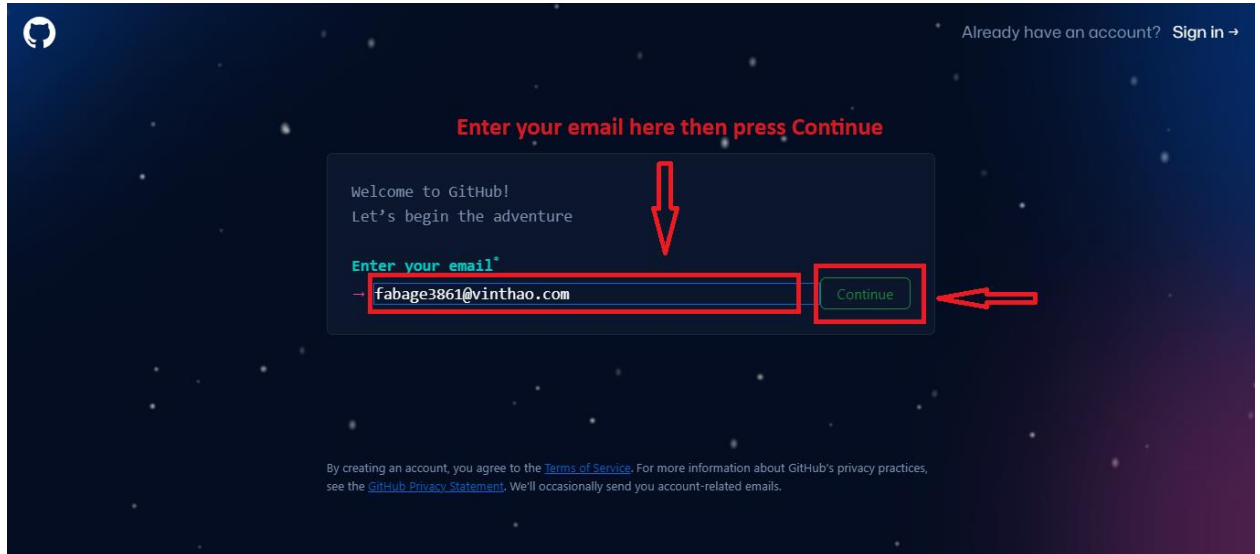
## 3. Set-up Github Account

### 3.1 Sign-up for Github account

1. In order to create a github account goto <https://github.com/> and select sign up from top right of the page.



2. You'll be redirected to an other page where you'll be asked to enter your email address. Enter your email address there.



The image shows the GitHub account creation page. At the top left is the GitHub logo. At the top right, it says "Already have an account? [Sign in](#) →". In the center, there's a dark blue box with white text. The text says "Welcome to GitHub!" and "Let's begin the adventure". Below that, it says "Enter your email\*" in green. There's a text input field containing the email address "fabage3861@vinthao.com". To the right of the input field is a green button labeled "Continue". A red arrow points down to the input field, and another red arrow points left to the "Continue" button. Above the input field, there's a red text label "Enter your email here then press Continue". At the bottom of the page, there's a small line of text: "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."

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

**Enter your email here then press Continue**

Welcome to GitHub!  
Let's begin the adventure

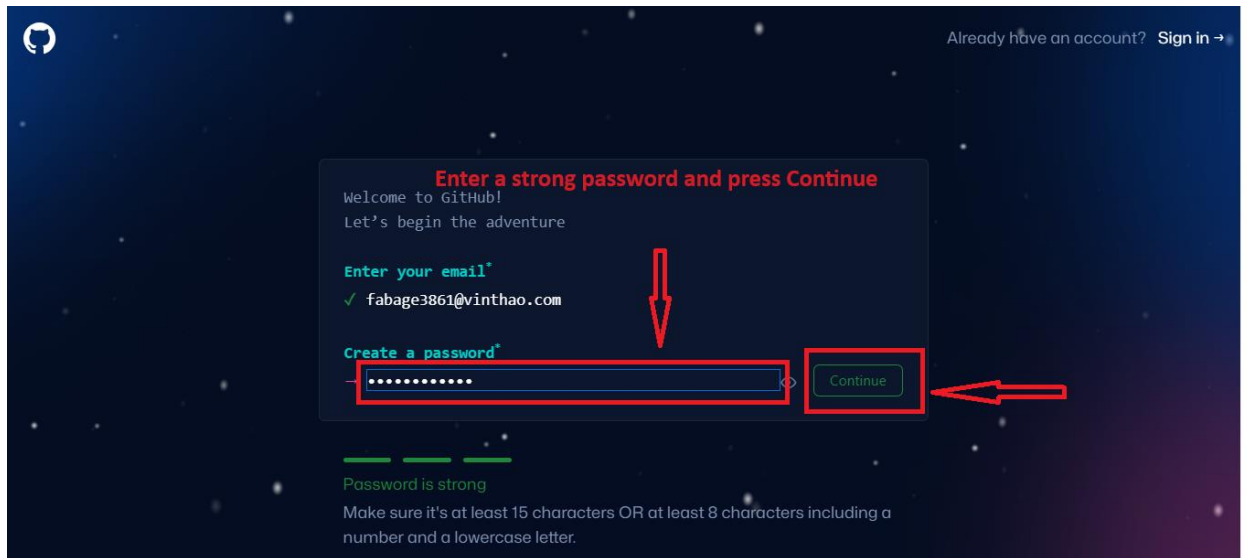
Enter your email\*

→ fabage3861@vinthao.com

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.

3. After you add your email and press continue you'll be asked to enter a password. Make sure you add a strong password by making different combination of upper and lower alphabets, numeric numbers and special characters.



The image shows the GitHub account creation interface. At the top right, there is a link "Already have an account? Sign in →". The main heading is "Enter a strong password and press Continue" in red. Below this, it says "Welcome to GitHub! Let's begin the adventure". The "Enter your email\*" field is filled with "fabage3861@vinthao.com" and has a green checkmark. The "Create a password\*" field is highlighted with a red box and contains masked characters. A red arrow points down from the email field to the password field. To the right of the password field is a "Continue" button, also highlighted with a red box, with a red arrow pointing to it from the right. Below the password field, there are three green dashes and the text "Password is strong". At the bottom, it says "Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter."

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

**Enter a strong password and press Continue**

Welcome to GitHub!  
Let's begin the adventure

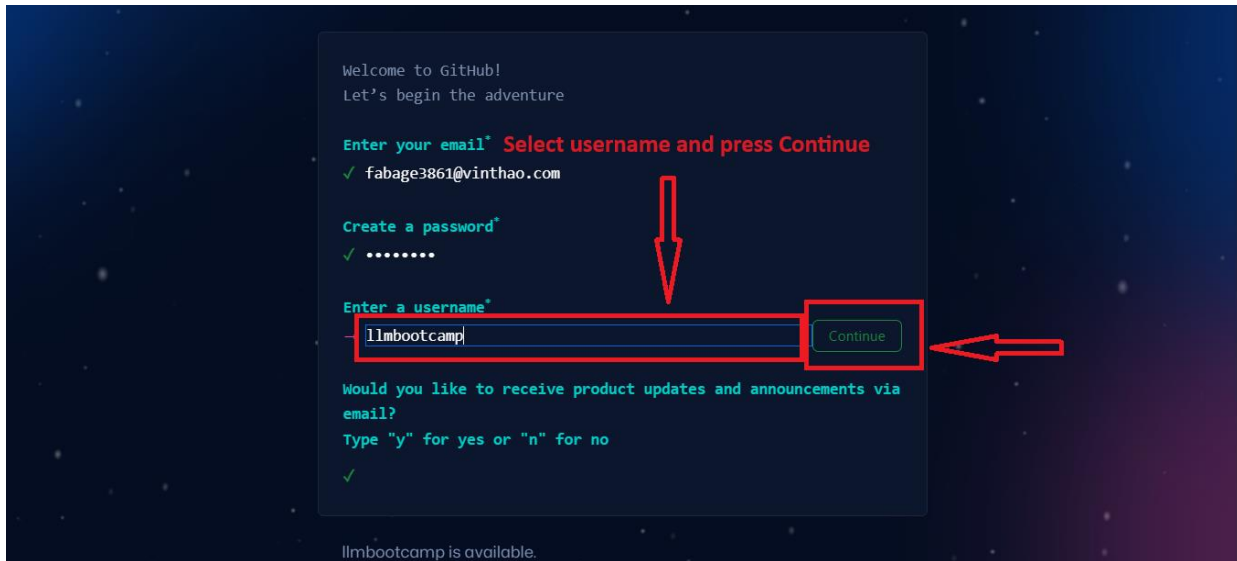
Enter your email\*  
✓ fabage3861@vinthao.com

Create a password\*  
[Masked Password]

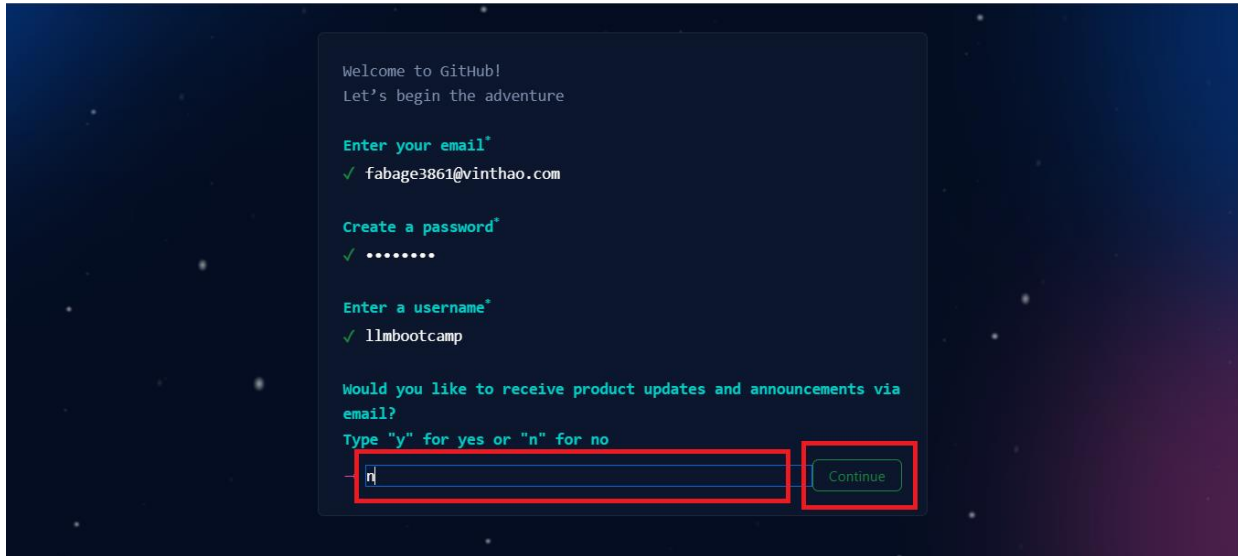
[Continue](#)

— — —  
Password is strong  
Make sure it's at least 15 characters OR at least 8 characters including a number and a lowercase letter.

4. After adding a password you'll be asked to create a username that will be public.



5. After create a username you'll be asked whether you want to receive product updates via email. If you want to receive press "y" otherwise "n".

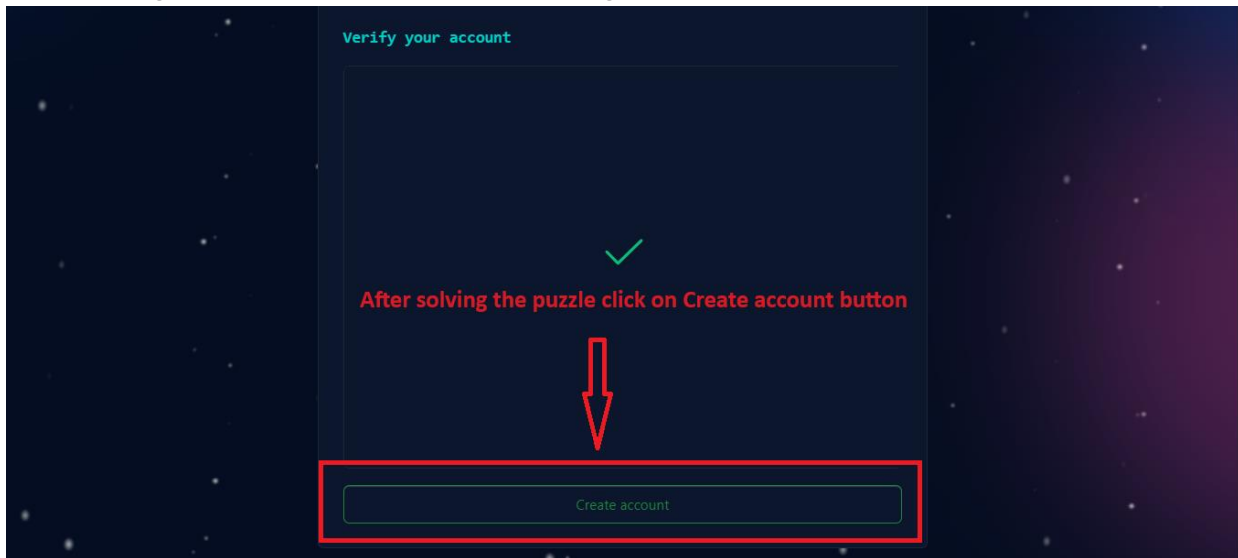


A terminal window with a dark blue background and white text, showing the GitHub account creation process. The text is as follows:

```
Welcome to GitHub!  
Let's begin the adventure  
  
Enter your email*  
✓ fabage3861@vinthao.com  
  
Create a password*  
✓ .....  
  
Enter a username*  
✓ llmbootcamp  
  
Would you like to receive product updates and announcements via  
email?  
Type "y" for yes or "n" for no  
n
```

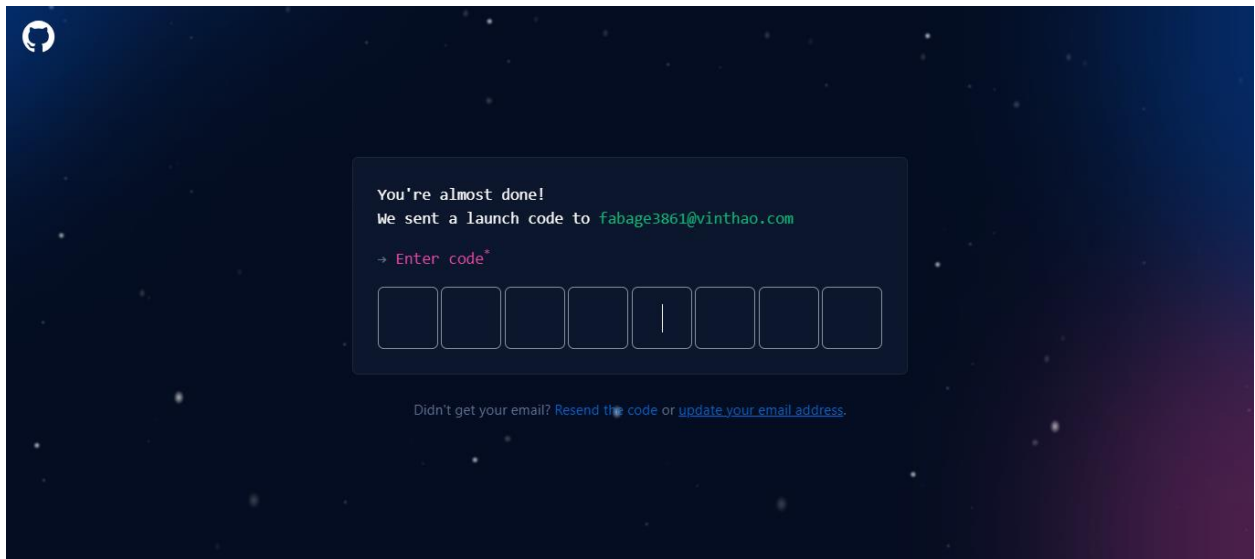
The input field containing 'n' and the 'Continue' button are highlighted with red rectangular boxes.

6. After this you'll be asked to verify as a human by playing a puzzle or solving a **CAPTCHA**. After solving it click on **Create account** button.





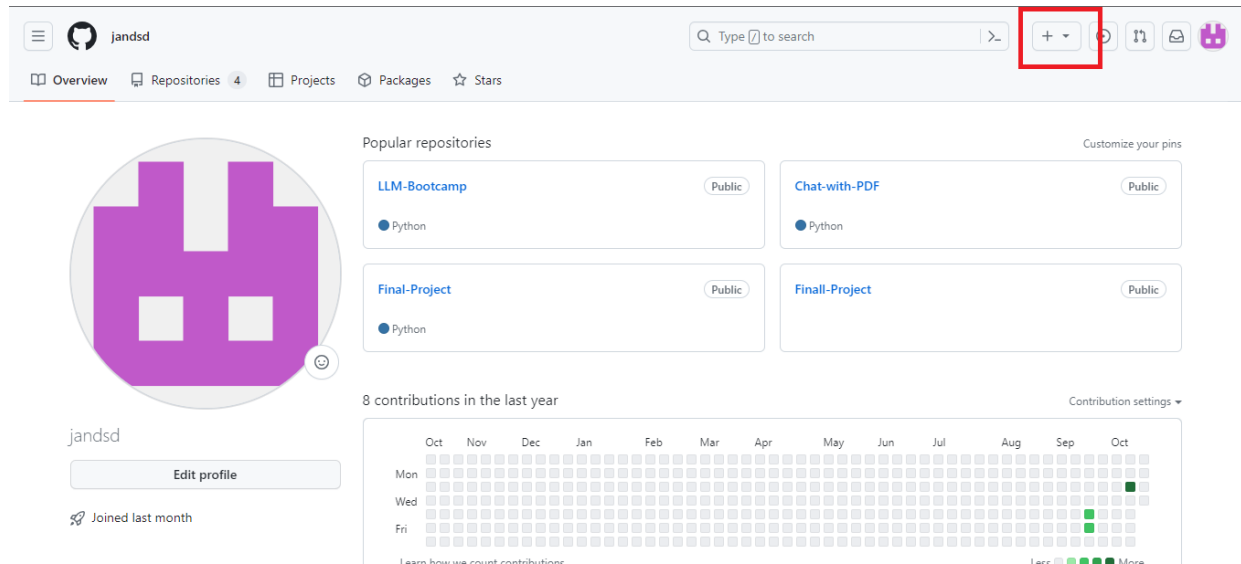
7. After creating your account you will receive an email with an OTP to verify your email address. Add the OTP and if you do not find any OTP in your mail please check your junk or spam folders.



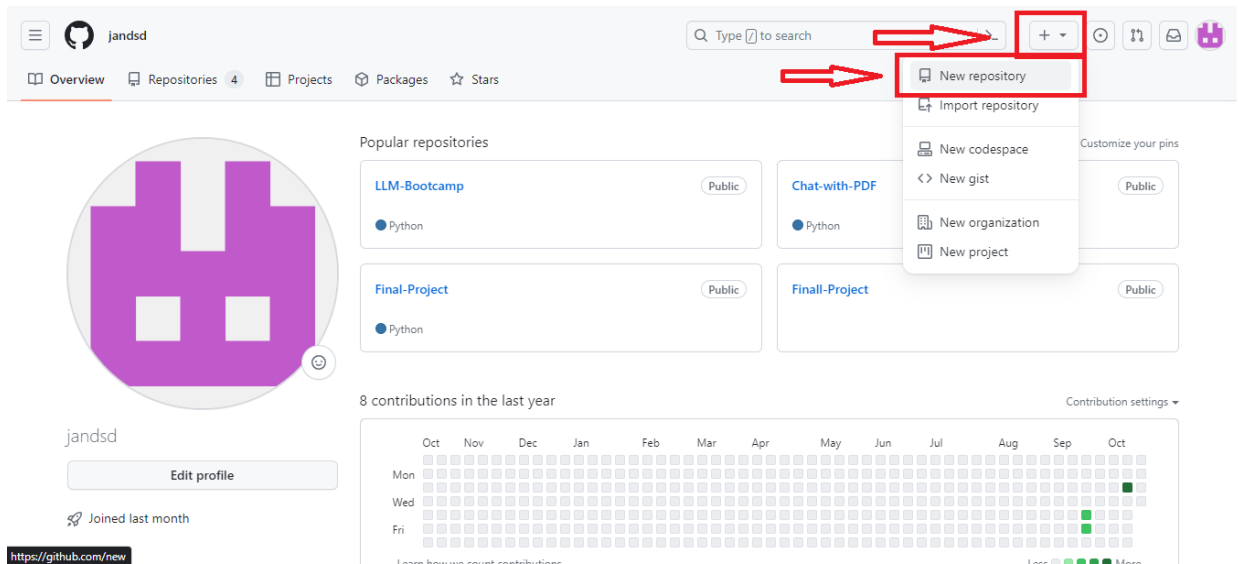
Now your account is ready.

### 3.3 Creating a Github repository

1. To create a Github repository goto your profile (make sure you have account logged in) and from the top right of the page click on the **plus (+)** button.



## 2. Now select “New Repository”



- Now, add the repository name and press the **Create repository** button from the bottom in green color and the repository will be created.

## 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 \*

 jandsd ▾

Repository name \*

Final-Projectt

✓ Final-Projectt is available.



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

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.

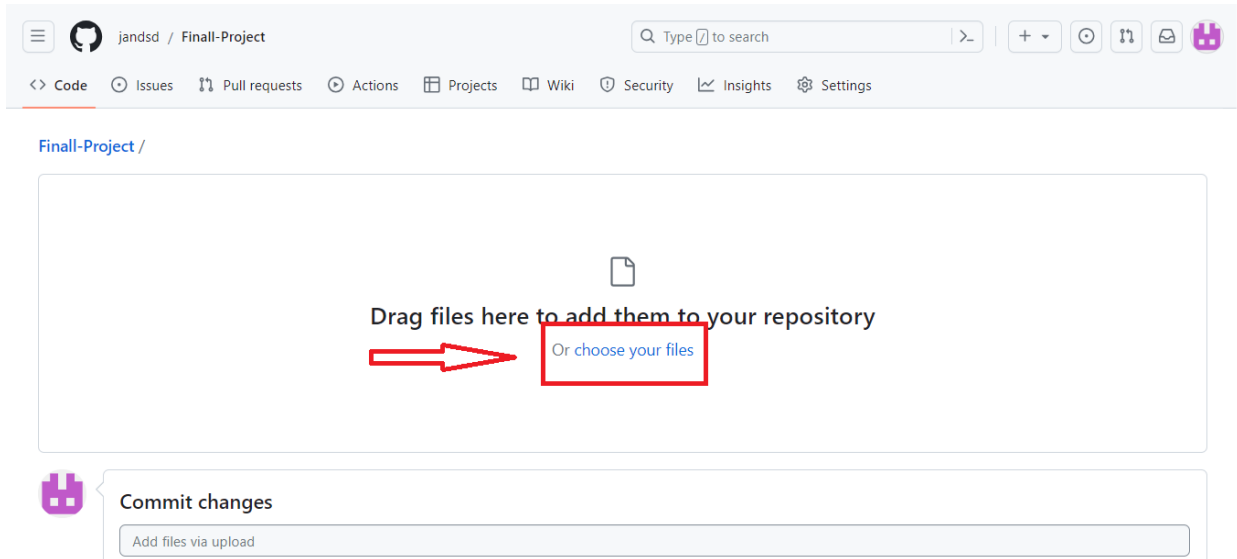


Create repository

#### 4. To push the code to you Github repository click on **uploading an existing file**

The screenshot shows the GitHub interface for a repository named 'Finall-Project' by user 'jandsd'. The repository is public. The page includes navigation links 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'. Below these is a 'Quick setup' section with a title 'Quick setup — if you've done this kind of thing before'. It offers two options: 'Set up in Desktop' or 'HTTPS' (selected) with the URL 'https://github.com/jandsd/Finall-Project.git'. Below the URL, it says 'Get started by [creating a new file](#) or [uploading an existing file](#)'. The link 'uploading an existing file' is highlighted with a red box and a red arrow pointing to it. The text continues: 'We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).'

## 5. Now click on **choose you files**.



The screenshot shows the GitHub interface for the repository 'jandsd / Finall-Project'. The top navigation bar includes links for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. The main area displays a large box with a document icon and the text 'Drag files here to add them to your repository'. Below this text is a red arrow pointing to a red-bordered box containing the link 'Or choose your files'. At the bottom, there is a 'Commit changes' section with a sub-label 'Add files via upload'.

Finall-Project /

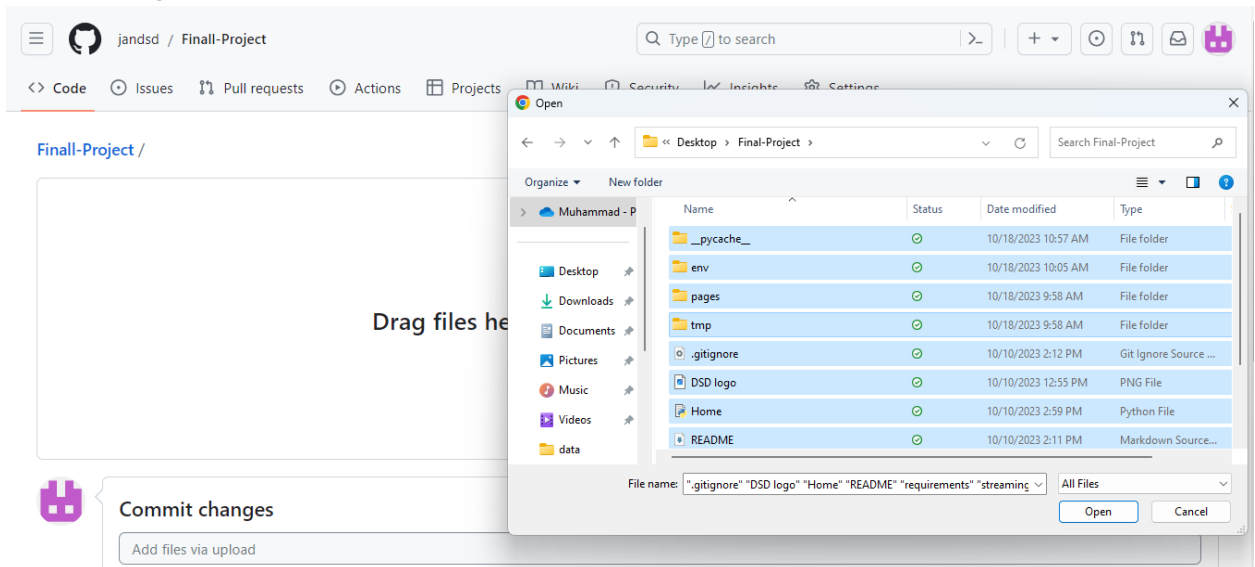
Drag files here to add them to your repository

Or choose your files

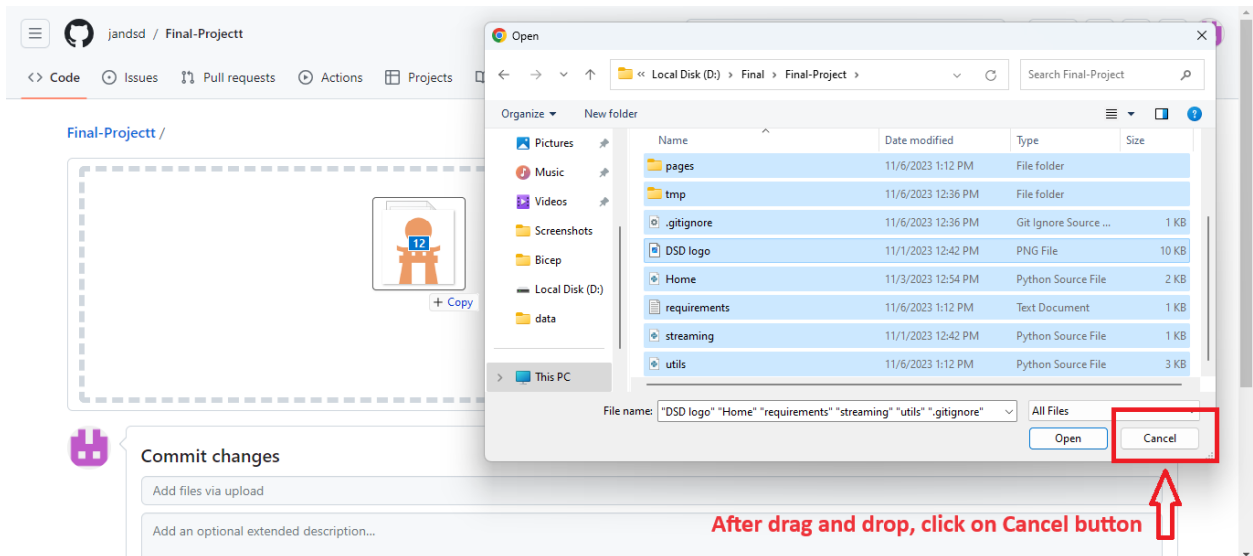
Commit changes

Add files via upload

6. Now, go to **Desktop > Final-Project** and select all files and folders.




7. Use the **drag and drop** option to **upload** the files. (Must do drag and drop otherwise all files will not be uploaded) and will cause problems later. After **drag and drop** click on **Cancel** button





## 8. Now, click on **Commit changes**.

[Or choose your files](#)




**Commit changes**

Add files via upload

Add an optional extended description...

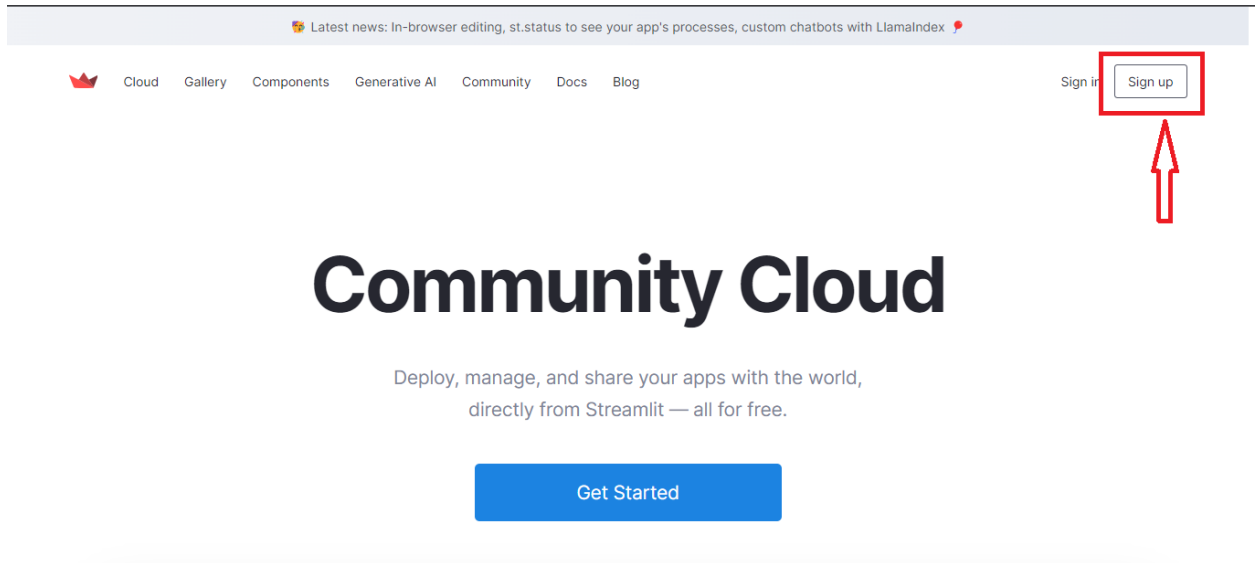
Commit changes

Cancel


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### 3.5 Setting Streamlit cloud account

1. Go to the link: <https://streamlit.io/cloud> and from the top right corner click on **sign up** if you don't already have an account



2. You'll see multiple routes to sign up. Since we have learnt how to create a GitHub account we will be following that route and click on **Continue with GitHub**.

 [Gallery](#) [Components](#) [Community](#) [Docs](#) [Blog](#)

## Streamlit Community Cloud



A place for the community to publicly share  
Streamlit apps and learn from each other!

Continue with Google

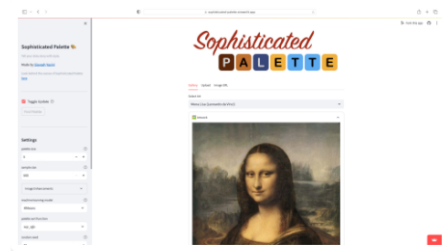
Continue with GitHub

OR


Your email...

Continue with email

By logging in, you agree to our [terms of use](#).



3. Click on Continue with GitHub and it will ask you to log in to your GitHub account. Enter your username and password and click on sign in.



Sign in to **GitHub**  
to continue to **Streamlit**

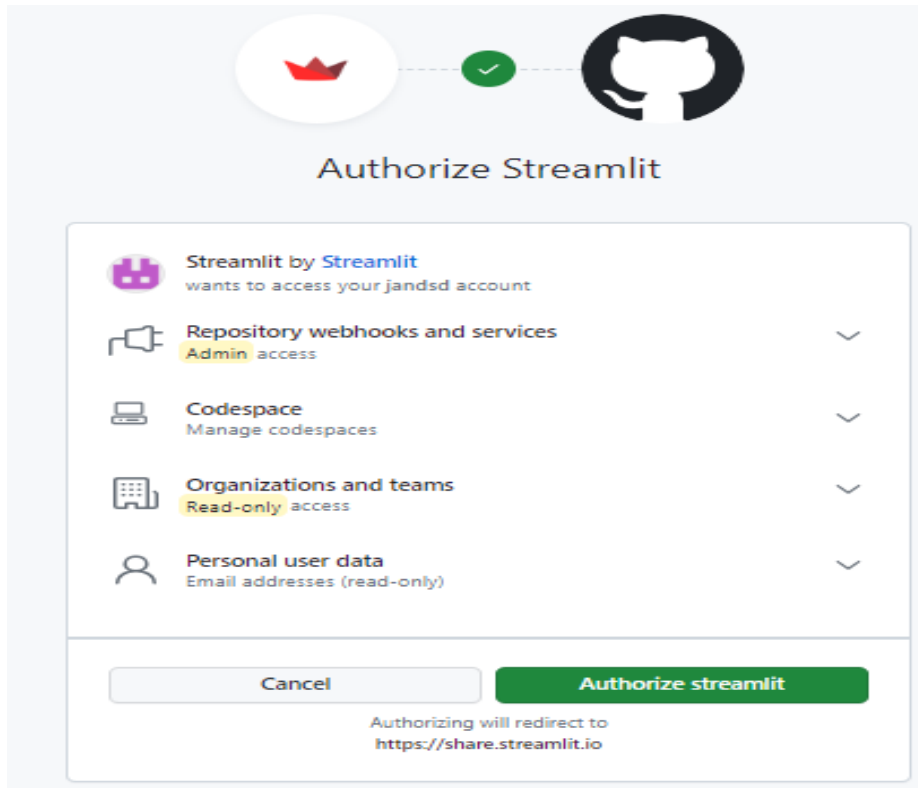
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Username or email address

Password [Forgot password?](#)

**Sign in**

4. Now, it will ask to authorize the Streamlit with Github. Click on **“Authorize Streamlit”**



5. Now, it will ask you to fill out a form to set up your account.

STEP 3 / 3

## Set up your account

First Name

required

First

Last Name

Last

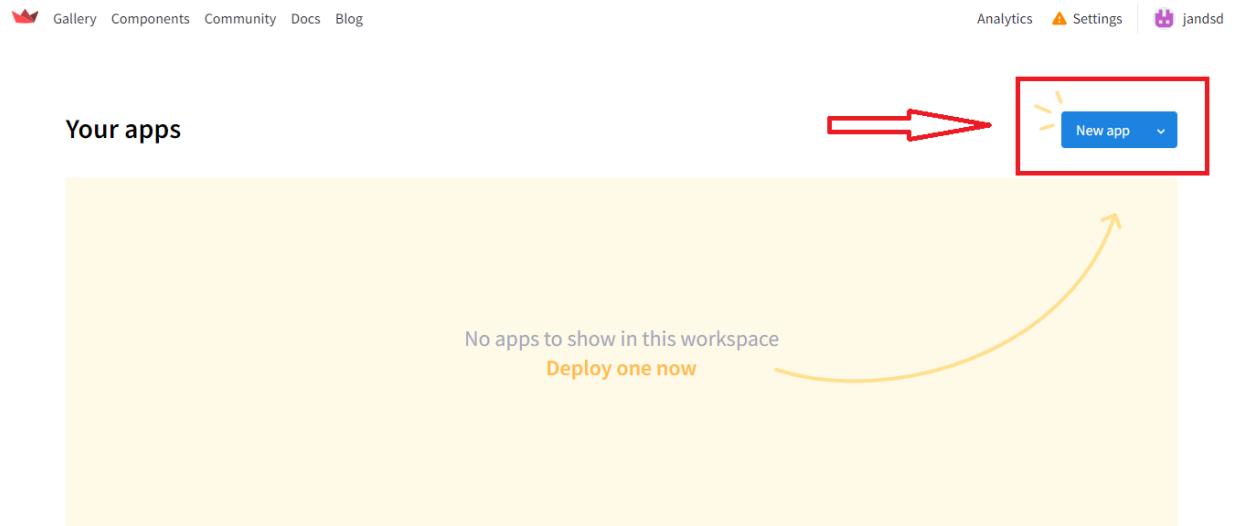
Primary Email

required

Email


### 3.6 Deploy on Streamlit cloud


1. After setting up your Streamlit account login it and click on “**New app**” on top right.



2. It will ask to **Authorize streamlit**. Press the green button.

Streamlit is requesting additional permissions

 Streamlit by Streamlit  
would like additional permissions to

 **Repositories**  
Public and private

Existing access

- ✓ Full control of repository hooks
- ✓ Full control of codespaces
- ✓ Read org and team membership, read org projects
- ✓ Access user email addresses (read-only)

Cancel

Authorize streamlit

Authorizing will redirect to  
<https://share.streamlit.io>



3. Since you have signed up using GitHub after the authorization it will ask you to select which repository you want to deploy, on which branch, and other related info.
  4. Select the repository on which you have **uploaded** the code. There is a textbox type dropdown with the title repository.
  5. Select the branch if have pushed on another branch. By default the branch is **main**.
  6. Write main file name in our case main file is **Home.py**
  7. After filling out details click on “**Deploy!**”. It will take some time to deploy your app.
- 

[← Back](#)

### Deploy an app

Repository [Paste GitHub URL](#)

jandsd/Final-Project

Branch

main

Main file path

Home.py

App URL (Optional)

final-project-w68zrsfgzntymyp5djghfy [.streamlitApp](#)

Domain is available

[Advanced settings...](#)

**Deploy!**

8. Your app will be accessible from the App URL