Part A – Java Environment Setup

JDK Download

1. **Visit Oracle Java Download Page**:

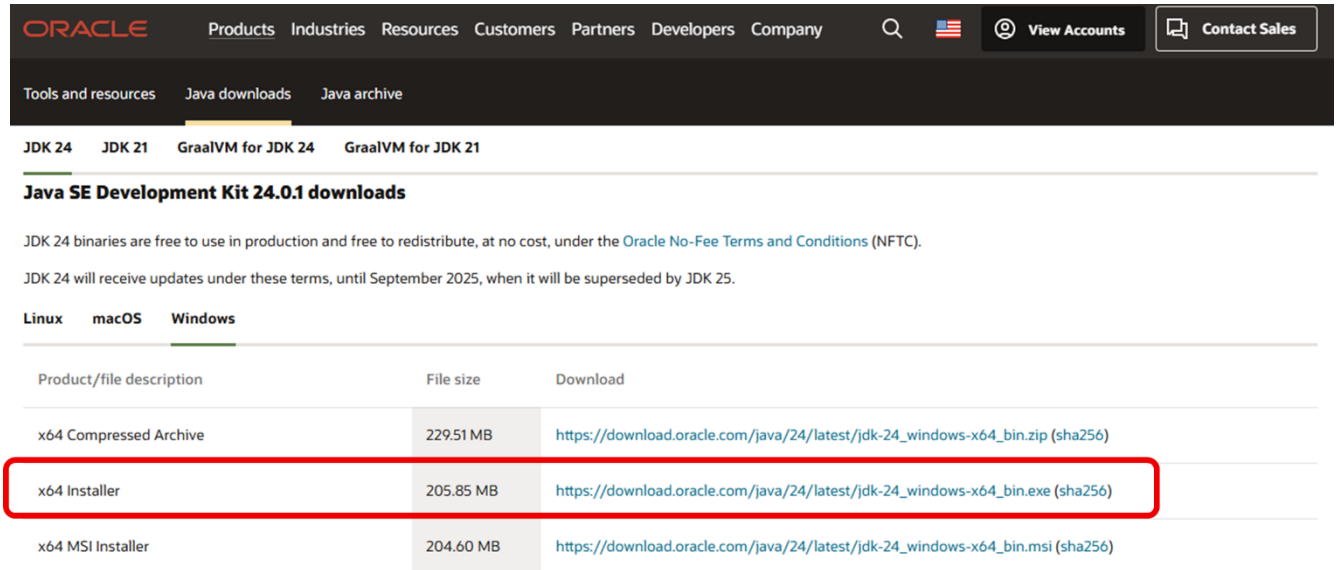
   https://www.oracle.com/java/technologies/downloads/

2. **Select Java Version**: Select the latest Java Development Kit (JDK) version

3. **Choose Your Operating System**: Click on the appropriate download link for your operating system (Windows, MacOS, Linux).

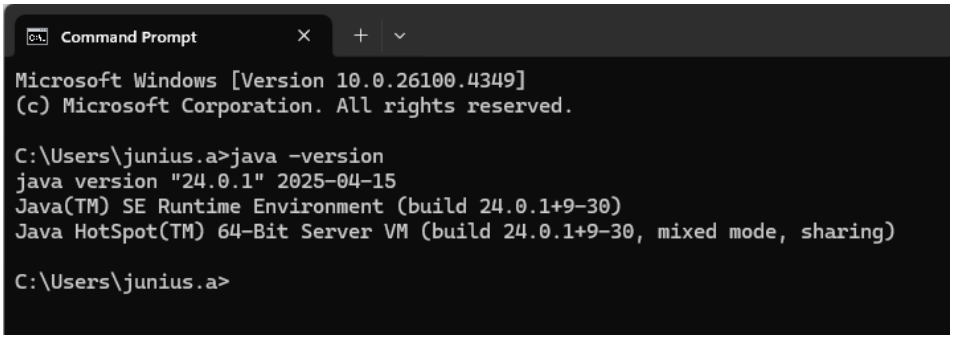
4. **Download the Installer**: For Windows select the link for the '*x64 Installer*' to download the setup file named: *jdk-XX_windows-x64_bin.exe*

5. **Complete the Installation**: Once downloaded, run the *jdk-XX_windows-x64_bin.exe* file and follow the on-screen instructions to install Java.



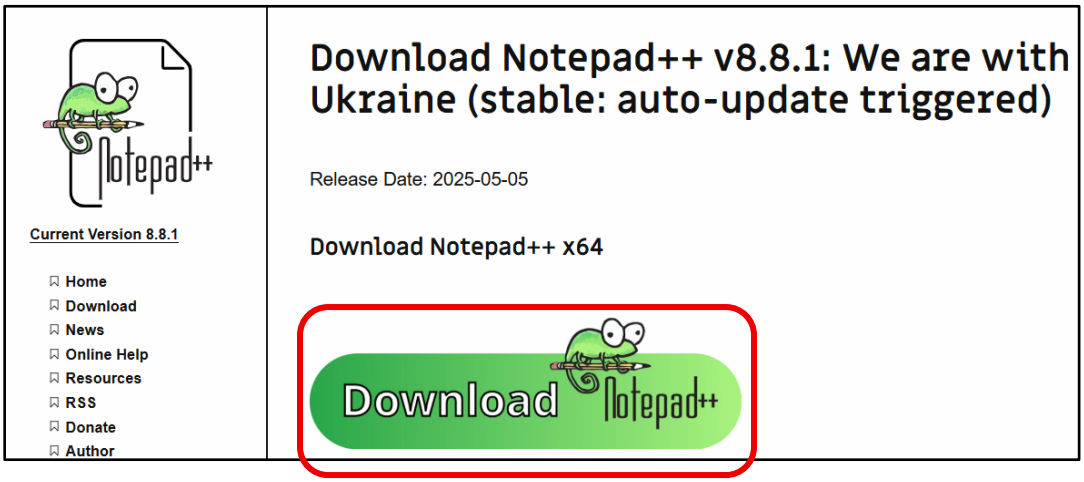
Verify JDK Installation (Java Version Check)

1. Open **Command Prompt**.
2. Check Java Version:
   - Type `java -version` in the command prompt.
   - Press Enter.



Notepad++ Download

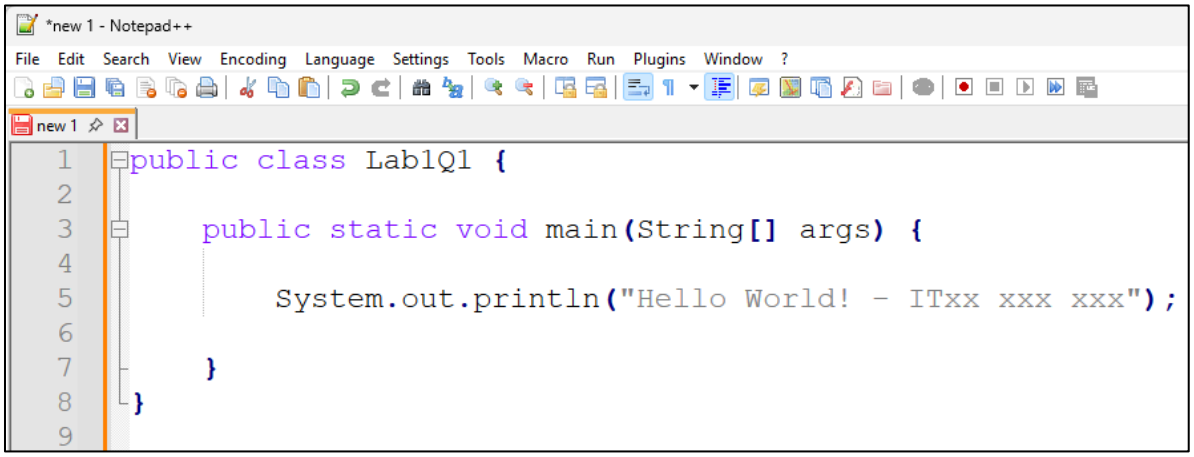
1. **Visit Notepad++ Download Page**: https://notepad-plus-plus.org/downloads/
2. **Download the Installer**: For Windows download the x64 Installer setup file named: *npp.X.X.X.Installer.x64.exe*
3. **Complete the Installation**: Once downloaded, run the *npp.X.X.X.Installer.x64.exe* file and follow the on-screen instructions to install Notepad++.



Part B – Java Hello World Program

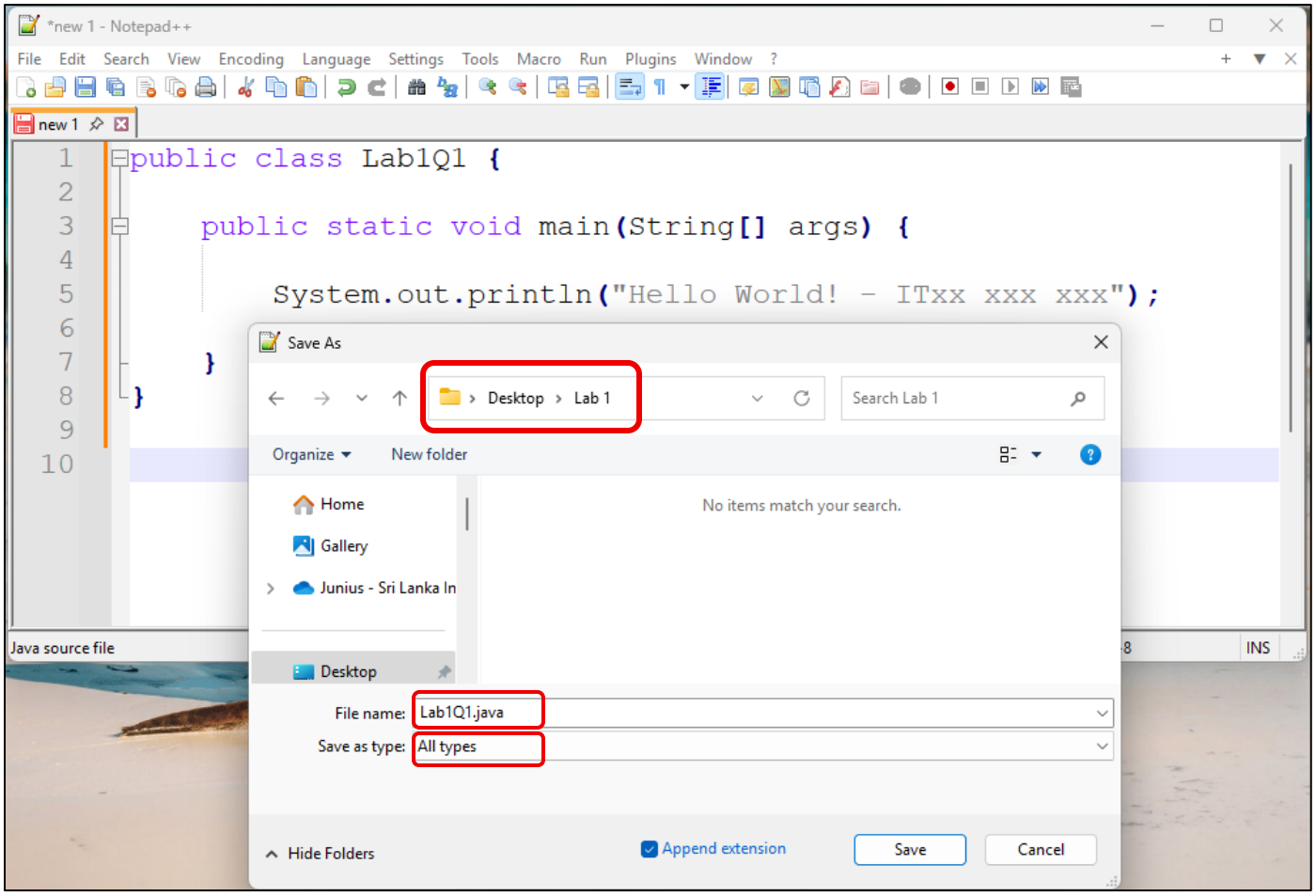
- **Create a Folder**:
  - In Desktop of your computer
  - Create a New Folder named: '**Lab 1**'
- **Open Notepad++**: Start Notepad++ on your computer to begin writing your program.
- **Hello World Program:**
  - In Notepad++, write the first Hello World Java program, copy and paste below code:

```
public class Lab1Q1 {

    public static void main(String[] args) {

        System.out.println("Hello World! - ITxx xxx xxx");

    }
}
```

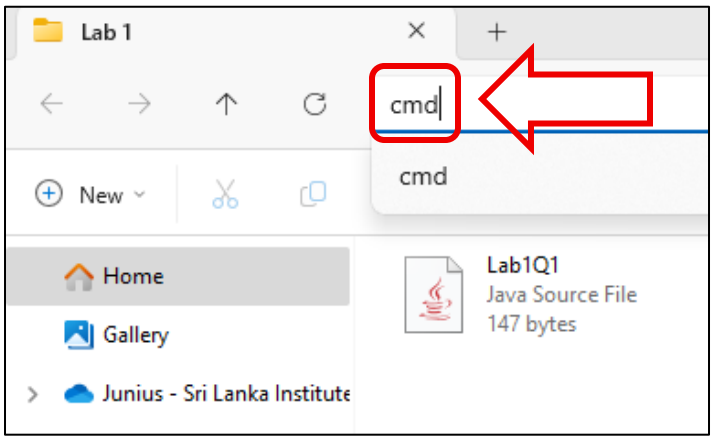


- Replace 'ITxx xxx xxx' in line 5 above code, with your own Student ID.

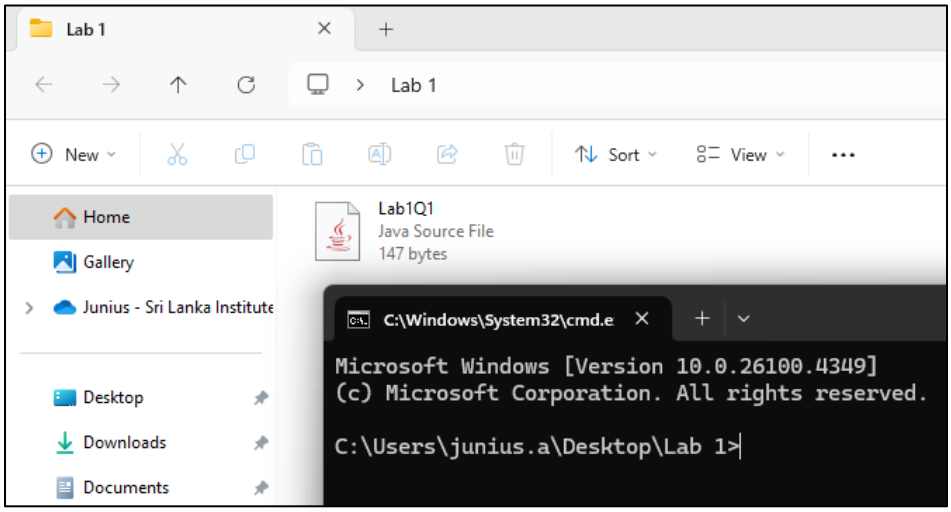
- Save the file inside ‘Lab 1’ folder as: **`Lab1Q1.java`** make sure to select ‘**All types**’ under ‘Save as type’.



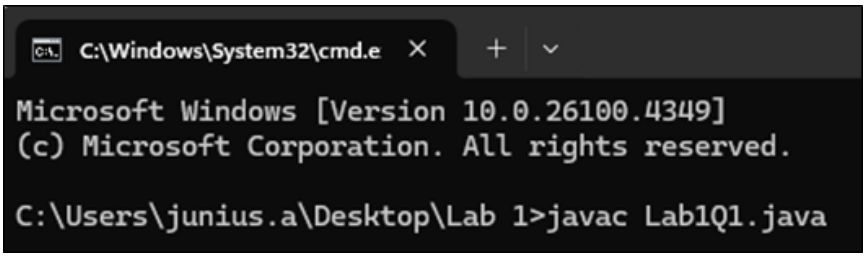
- **Open Command Prompt inside ‘Lab 1’ Folder:**
  - Inside ‘Lab 1’ folder, type **`cmd`** in the ***address bar*** of File Explorer and press Enter.



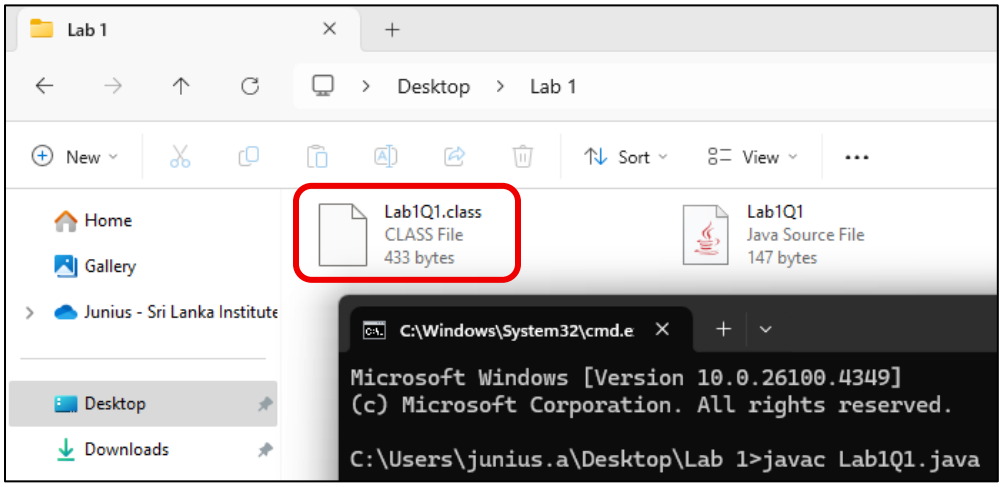
  - This will open Command Prompt with the path set to the ‘Lab 1’ folder.



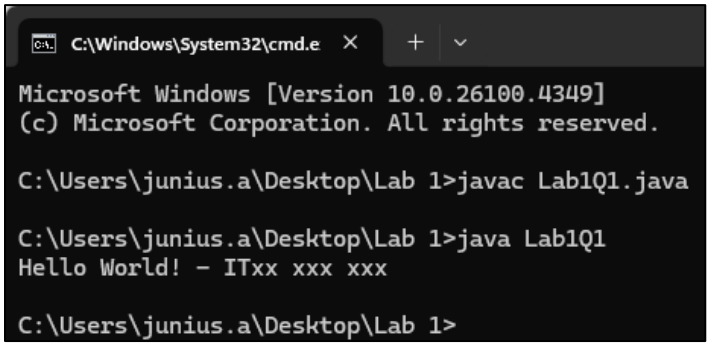
- **Compile the Program:**
  - Compile the Java program typing: **`javac Lab1Q1.java`**



- **Bytecode (.class file) Generated:**
  - Verify that **`Lab1Q1.class`** appears in the folder, indicating successful compilation.



- **Run the Program:**
  - In command prompt, type: **`java Lab1Q1`** to run your program.



Finally, you need to upload the Java Source File (.java file) to GitHub Repository (next page).

Part B – Lab Submission to GitHub

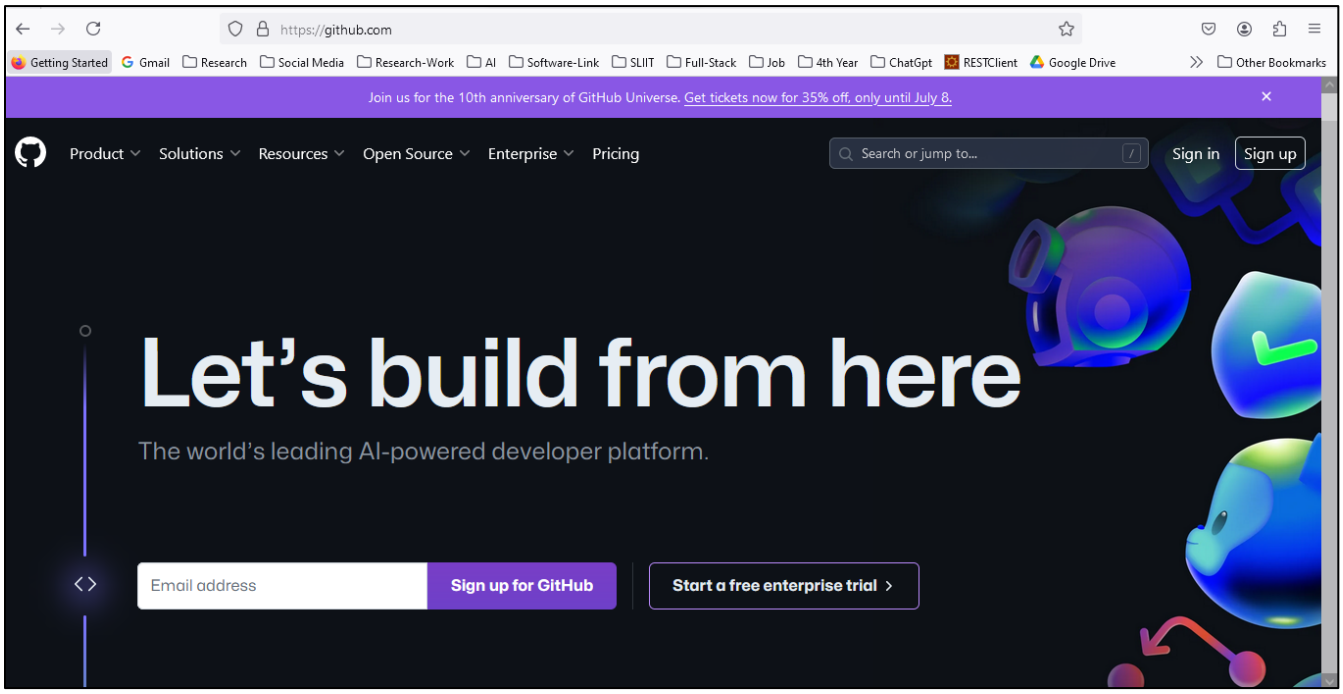
GitHub Account Creation

Step 1: Go to GitHub Website

- Open your web browser and navigate to: https://github.com/

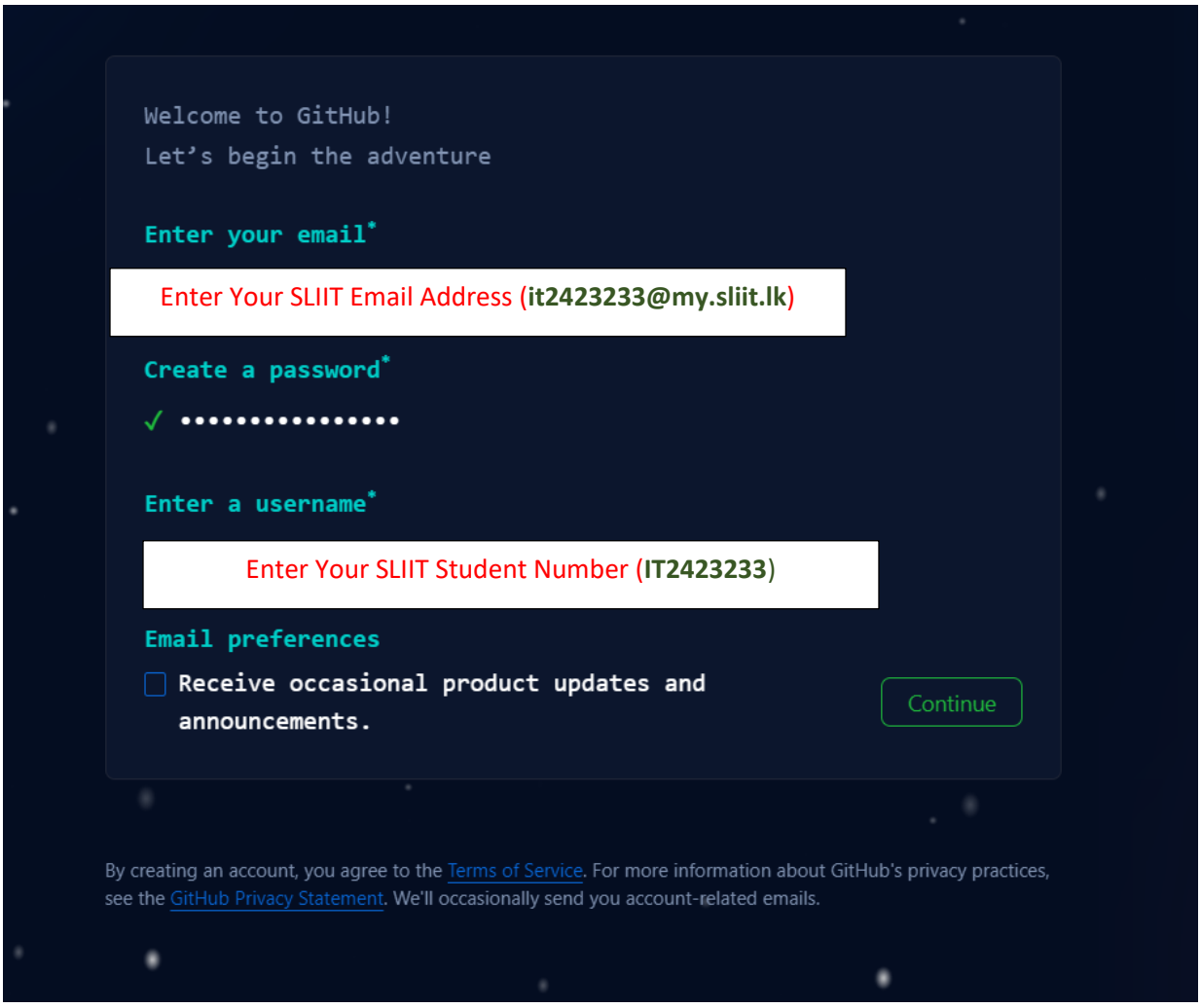
Step 2: Sign Up

- Click ‘Sign Up’ button, typically located in the top right corner of the homepage.
- This will redirect you to the registration page.



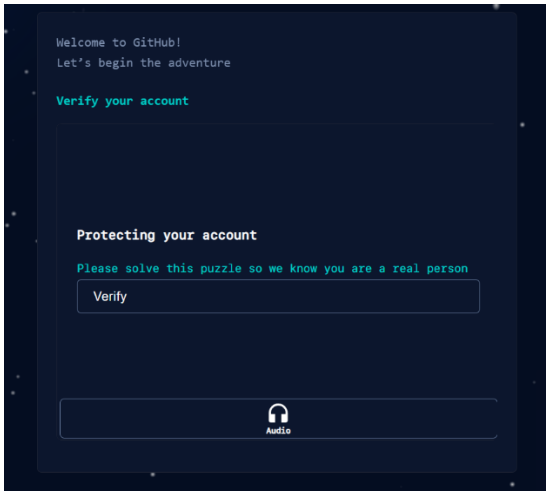
Step 3: Signup Details

- **Email Address:** Enter a your SLIIT email address.
- **Password:** Create a strong password, ideally at least 15 characters long or at least 8 characters including a mix of letters, numbers, and symbols.
- **Username:** Enter your student ID as the username (e.g., IT2423233). **Make sure to type IT in CAPS of your Student ID**.



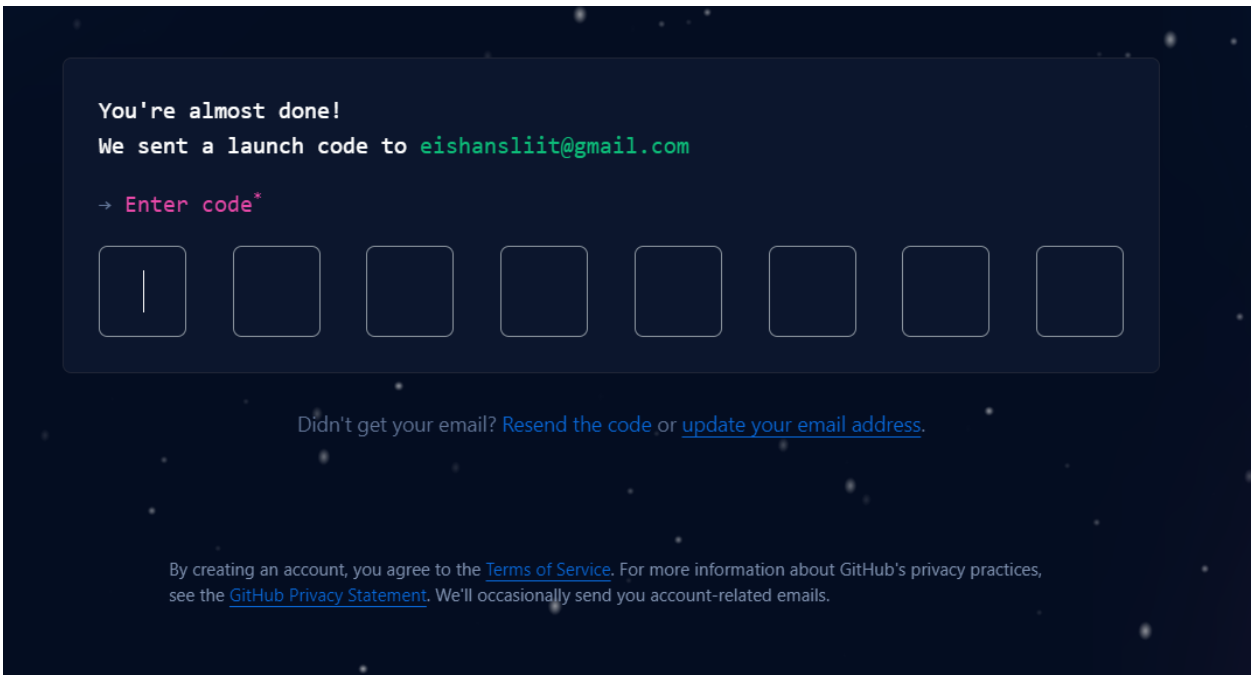
Step 4: Verify your Account

- Complete the CAPTCHA challenge to confirm that you are not a robot.



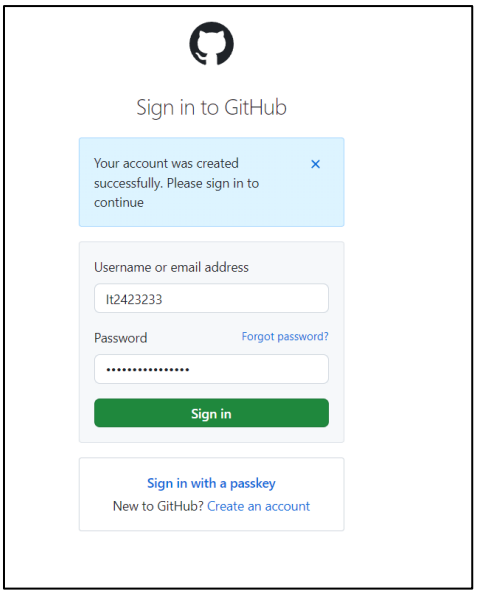
Step 5: Verify your Email address

- Check your email inbox for a verification email from GitHub.
- Click the provided link to verify your email address.



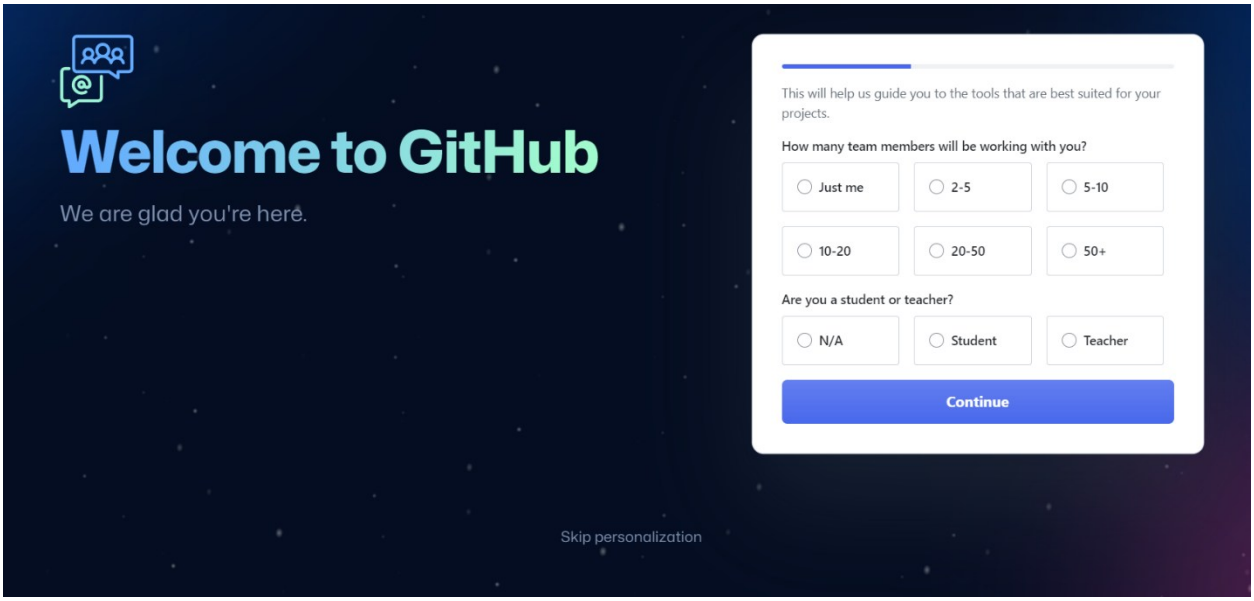
Step 6: Sign in to the GitHub

- Enter your username and password



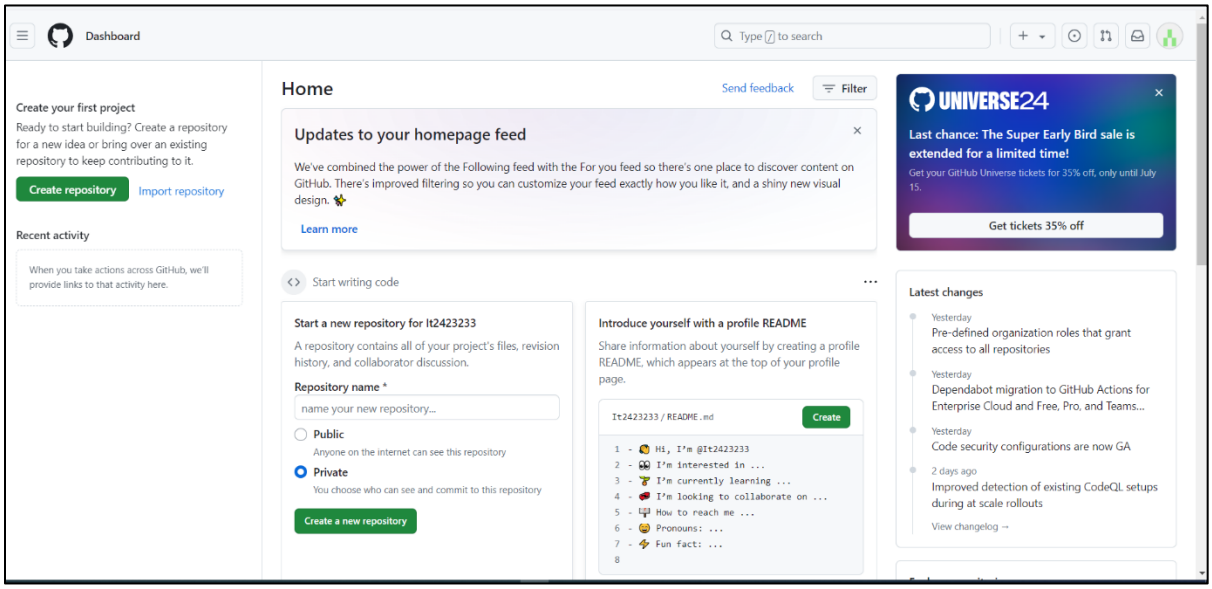
Step 7: Set up your Profile

- If you want, you can do the personalization for this account or you can skip this step by clicking the skip personalization.



Step 8: Start using GitHub

- Your account is now ready. You can begin by creating repositories, participating in projects, and exploring the work of other GitHub users.



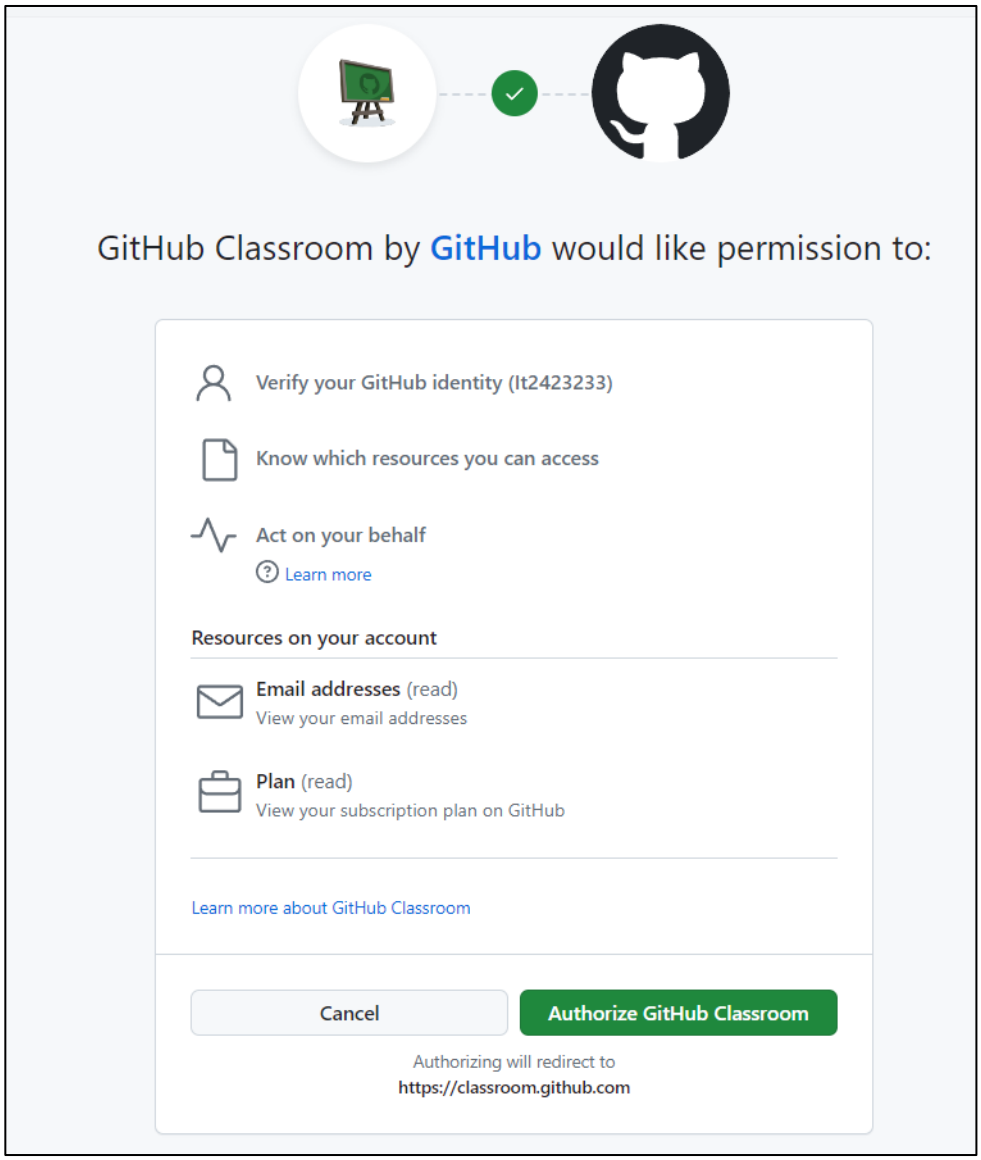
Submitting Lab Source Files to GitHub

Step 1: Open the Assignment Link

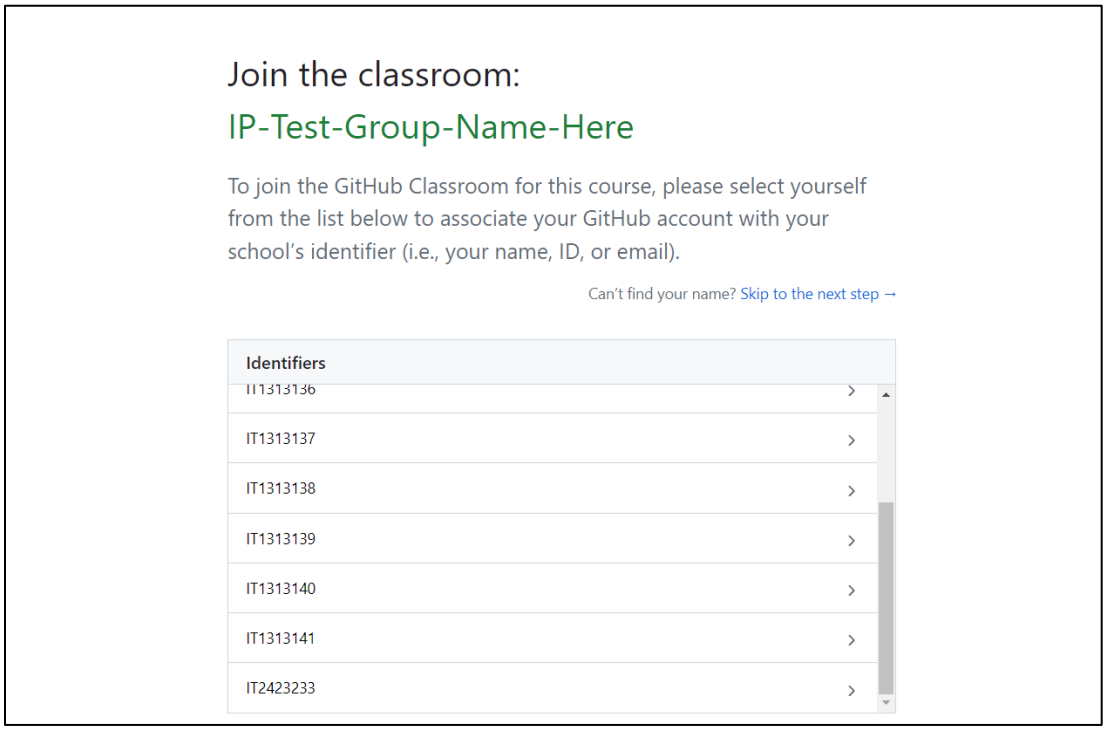
- Courseweb will provide the link to GitHub Classroom assignment submission page.

Step 2: Authorize GitHub Classroom

- If it's your first-time using GitHub Classroom, you may be prompted to authorize GitHub Classroom to access your GitHub account.
- Click on the '*Authorize GitHub Classroom*' button to proceed.

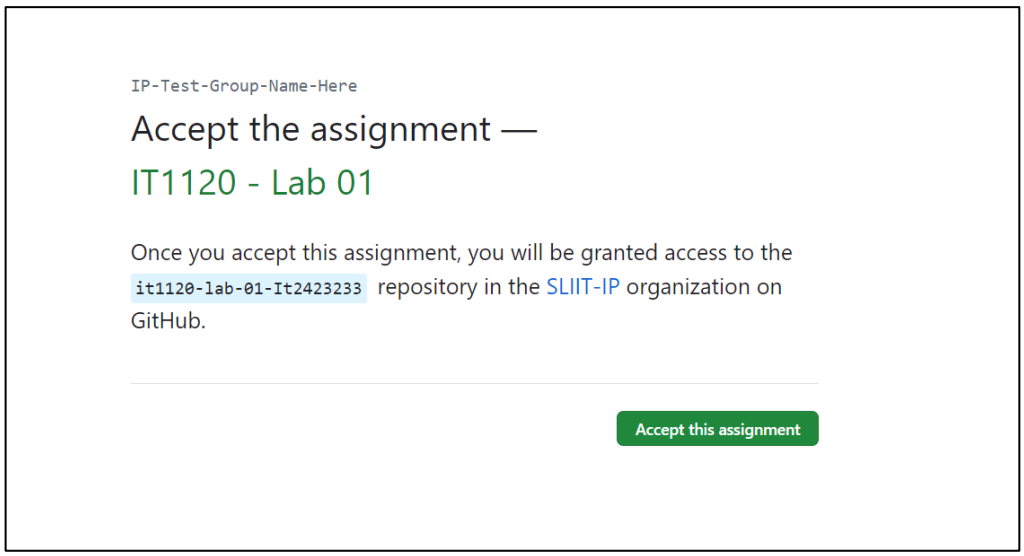


Step 3: Select the student IT Number in the list



Step 4: Accept the Assignment

- After Selecting the IT Number, you will be directed to the assignment acceptance page.
- Click on the '*Accept this assignment*' button.
- GitHub Classroom will start setting up your repository. This process may take a few moments.

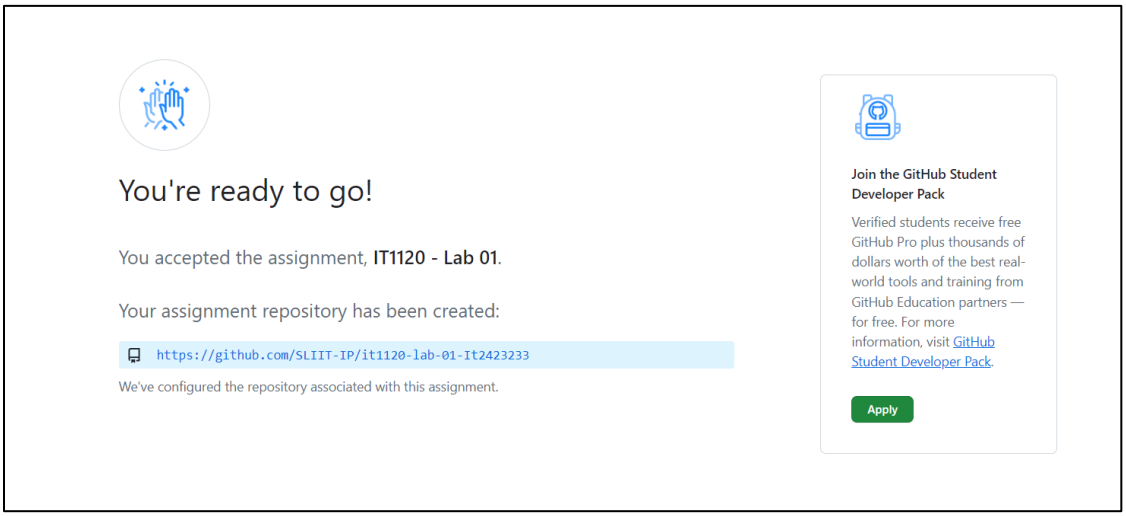


Step 5: Access Your Repository

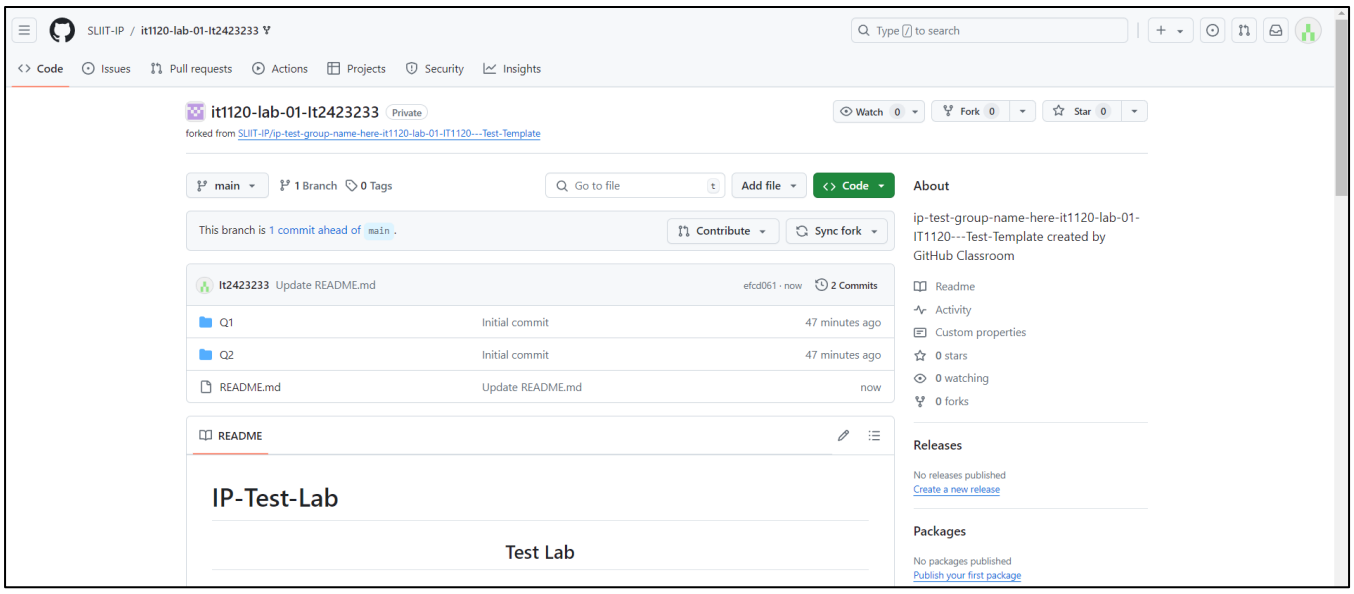
- The URL of your Git Repository will be in following format:

  https://github.com/ ***organization_name/ assignment_name-username***

- **Bookmark or save this URL for easy access in future lab submissions.**

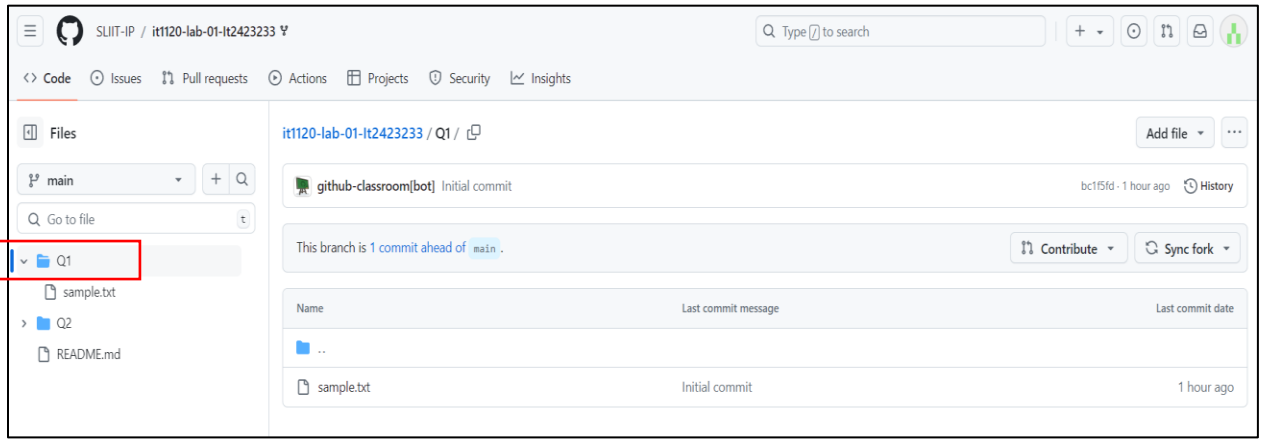


- Clicking the generated URL of your repository it will be redirected to your newly created GitHub repository



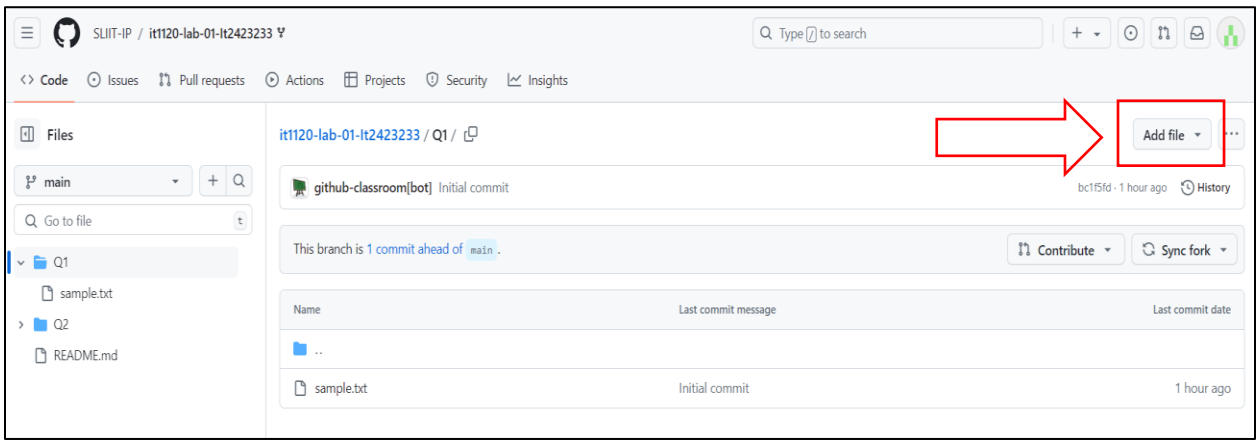
Step 6: Access the Folder you want to submit the answer

- In the repository, locate the '*Q1*' folder by clicking on it. This will take you inside the folder.



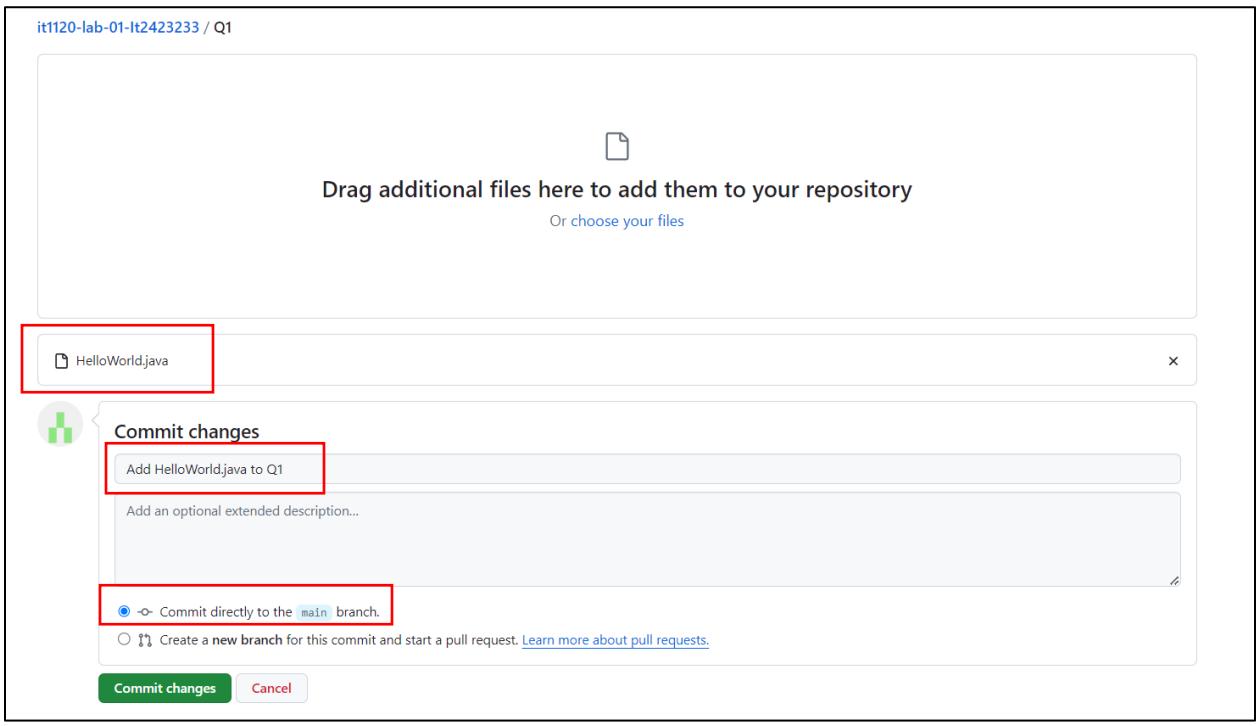
Step 7: Upload the Java Files

- Inside the 'Q1' folder, click on the '*Add file*' button located at the top right corner.
- Choose 'Upload files' from the dropdown menu.
- Drag and drop your **Lab1Q1.java** file or select '*choose your files*' link to navigate to your file saved in your computer.
- Once the file is selected, it will be uploaded to the GitHub Repository.



Step 8: Commit the File

- After uploading the file, you will be directed to a '*Commit change*' section at the bottom of the page.
- Enter a commit message in the input box provided. Sample commit message could be something like: '***Add Lab1Q1.java to Q1***'.
- Ensure that you select '***Commit directly to the main branch***' option.
- Click on '*Commit changes*'.



Step 9: Verify Submission

- After committing the changes, GitHub will return you to the folder view where you can see your newly uploaded **Lab1Q1.java** file inside the 'Q1' folder.
- Make sure the file is correctly placed and contains the appropriate content.