

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:

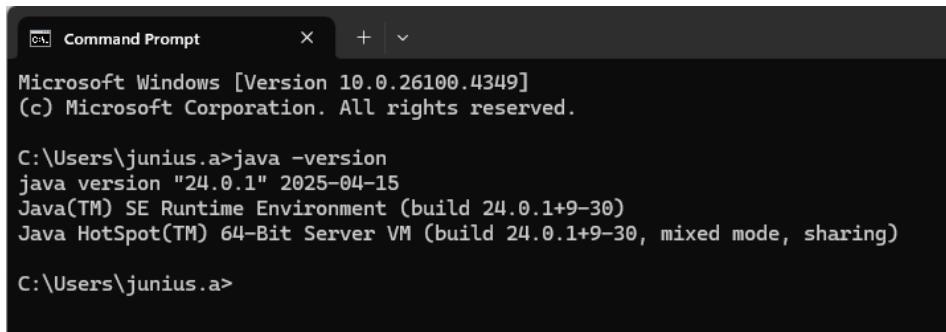
Once downloaded, run the *jdk-XX_windows-x64_bin.exe* file and follow the on-screen instructions to install Java.

The screenshot shows the Oracle Java Downloads page. At the top, there's a navigation bar with links for Products, Industries, Resources, Customers, Partners, Developers, Company, a search icon, a flag icon, View Accounts, and Contact Sales. Below the navigation bar, there are tabs for Tools and resources, Java downloads (which is selected), and Java archive. Under Java downloads, there are sub-tabs for JDK 24, JDK 21, GraalVM for JDK 24, and GraalVM for JDK 21. A section titled "Java SE Development Kit 24.0.1 downloads" is shown. It states that JDK 24 binaries are free to use in production and free to redistribute, at no cost, under the Oracle No-Fee Terms and Conditions (NFTC). It also notes that JDK 24 will receive updates under these terms, until September 2025, when it will be superseded by JDK 25. Below this, there are tabs for Linux, macOS, and Windows (which is selected). A table lists download options:

Product/file description	File size	Download
x64 Compressed Archive	229.51 MB	https://download.oracle.com/java/24/latest/jdk-24_windows-x64_bin.zip (sha256)
x64 Installer	205.85 MB	https://download.oracle.com/java/24/latest/jdk-24_windows-x64_bin.exe (sha256)
x64 MSI Installer	204.60 MB	https://download.oracle.com/java/24/latest/jdk-24_windows-x64_bin.msi (sha256)

Verify JDK Installation (Java Version Check)

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



```
Command Prompt Microsoft Windows [Version 10.0.26100.4349]
(c) Microsoft Corporation. All rights reserved.

C:\Users\junius.a>java -version
java version "24.0.1" 2025-04-15
Java(TM) SE Runtime Environment (build 24.0.1+9-30)
Java HotSpot(TM) 64-Bit Server VM (build 24.0.1+9-30, mixed mode, sharing)

C:\Users\junius.a>
```

Notepad++ Download

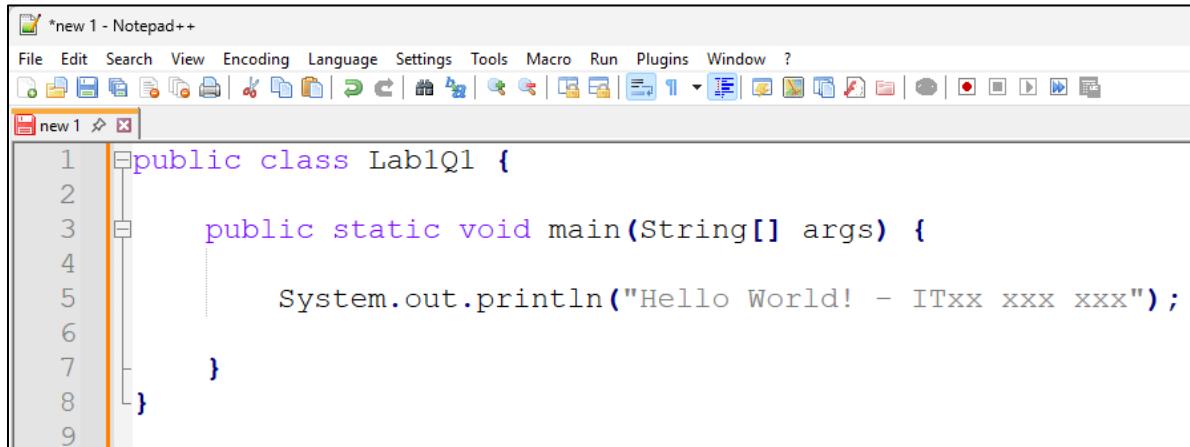
1. Visit **Notepad++ Download Page:** <https://notepad-plus-plus.org/downloads/>
2. **Download the Installer:** For Windows download the x64 Installer setup file named:
npp.X.X.X.Installer.x64.exe
3. **Complete the Installation:** Once downloaded, run the *npp.X.X.X.Installer.x64.exe* file and follow 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");  
    }  
}
```



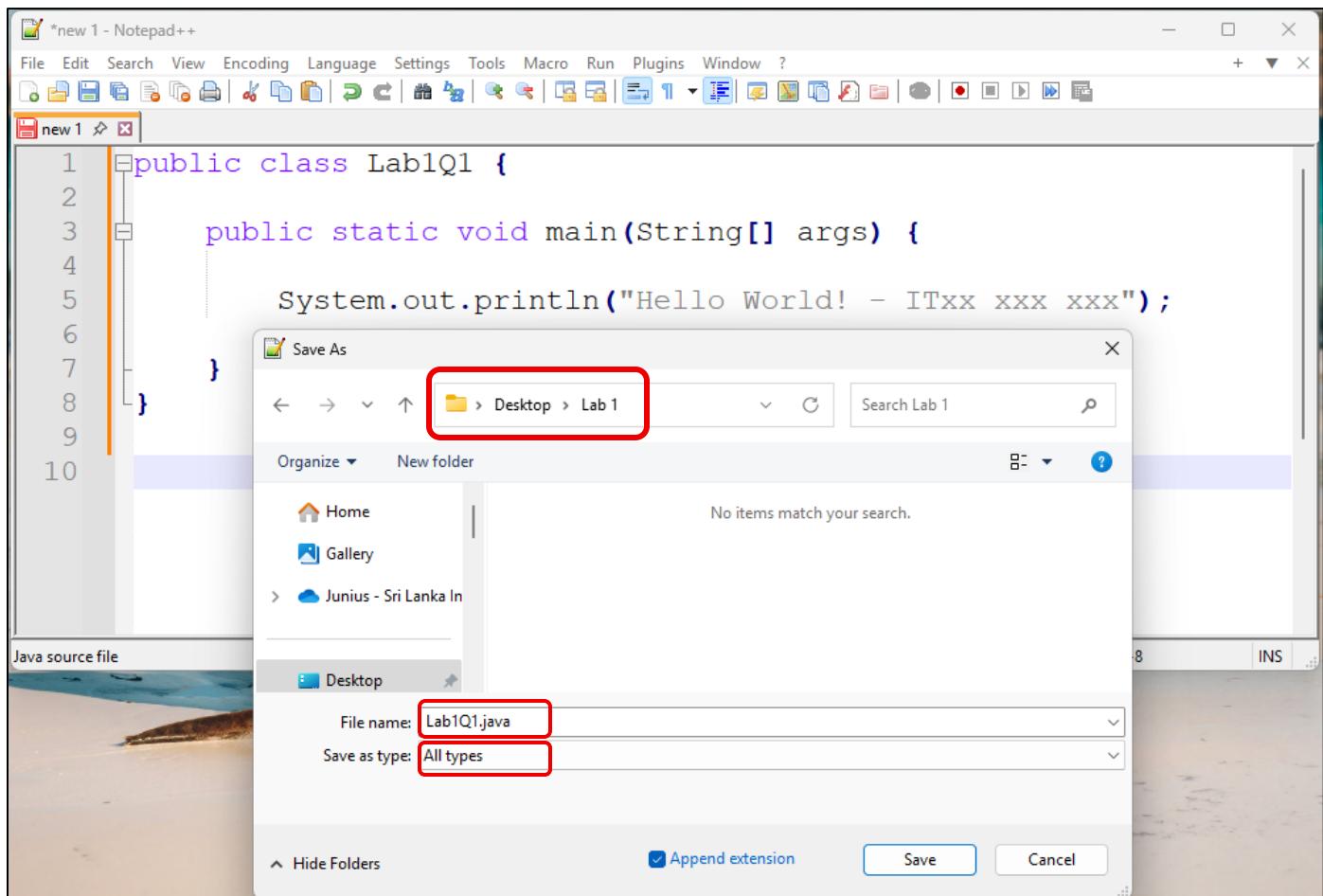
The screenshot shows the Notepad++ interface with a single file open titled "new 1". The code editor displays the following Java code:

```
1 public class Lab1Q1 {  
2     public static void main(String[] args) {  
3         System.out.println("Hello World! - ITxx xxx xxx");  
4     }  
5 }
```

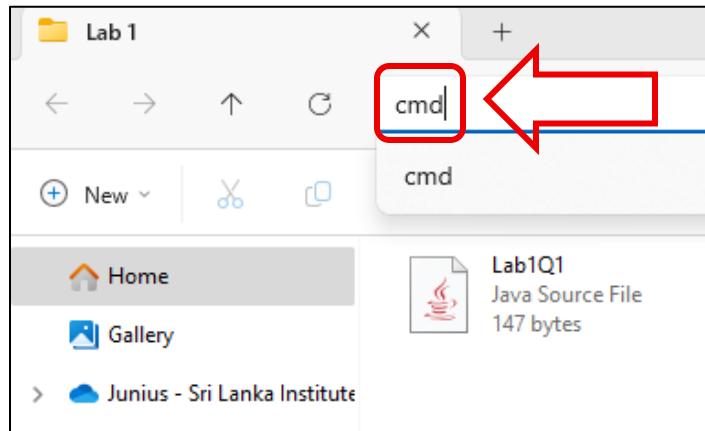
The code is color-coded, with keywords like "public", "class", "main", and "System.out.println" in blue. The file menu bar at the top includes options like File, Edit, Search, View, Encoding, Language, Settings, Tools, Macro, Run, Plugins, Window, and Help. The toolbar below the menu contains various icons for file operations.

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

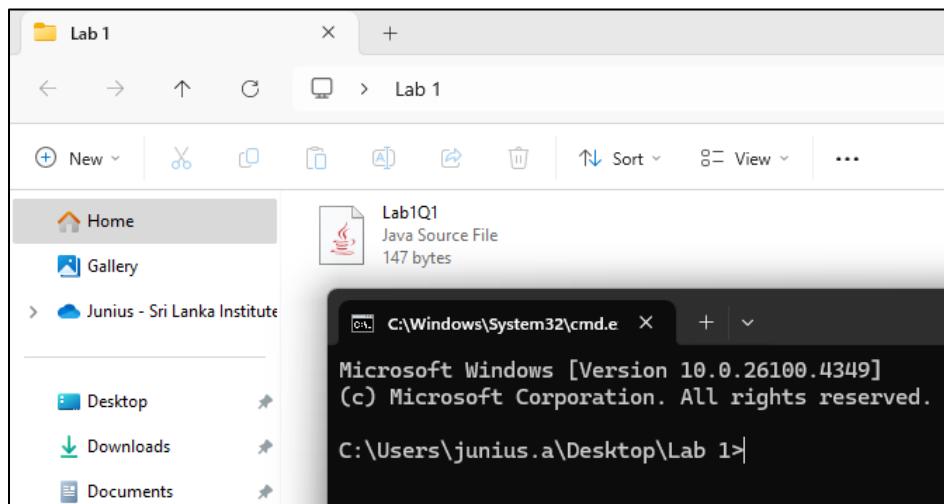
- Save the file inside ‘Lab 1’ folder as: **Lab1Q1.java** make sure to select ‘All types’ under ‘Save as type’.



- 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.

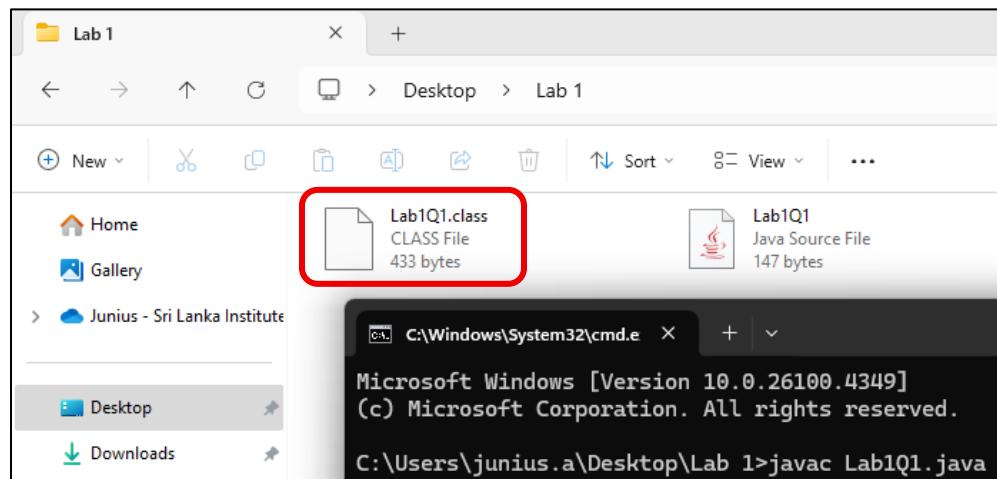


- **Compile the Program:**
 - Compile the Java program typing: **javac Lab1Q1.java**

```
C:\Windows\System32\cmd.e > Microsoft Windows [Version 10.0.26100.4349]
(c) Microsoft Corporation. All rights reserved.

C:\Users\junius.a\Desktop\Lab 1>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.

```
C:\Windows\System32\cmd.e > Microsoft Windows [Version 10.0.26100.4349]
(c) Microsoft Corporation. All rights reserved.

C:\Users\junius.a\Desktop\Lab 1>javac Lab1Q1.java

C:\Users\junius.a\Desktop\Lab 1>java Lab1Q1
Hello World! - ITxx xxx xxx

C:\Users\junius.a\Desktop\Lab 1>
```

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

Part B – Lab Submission to GitHub

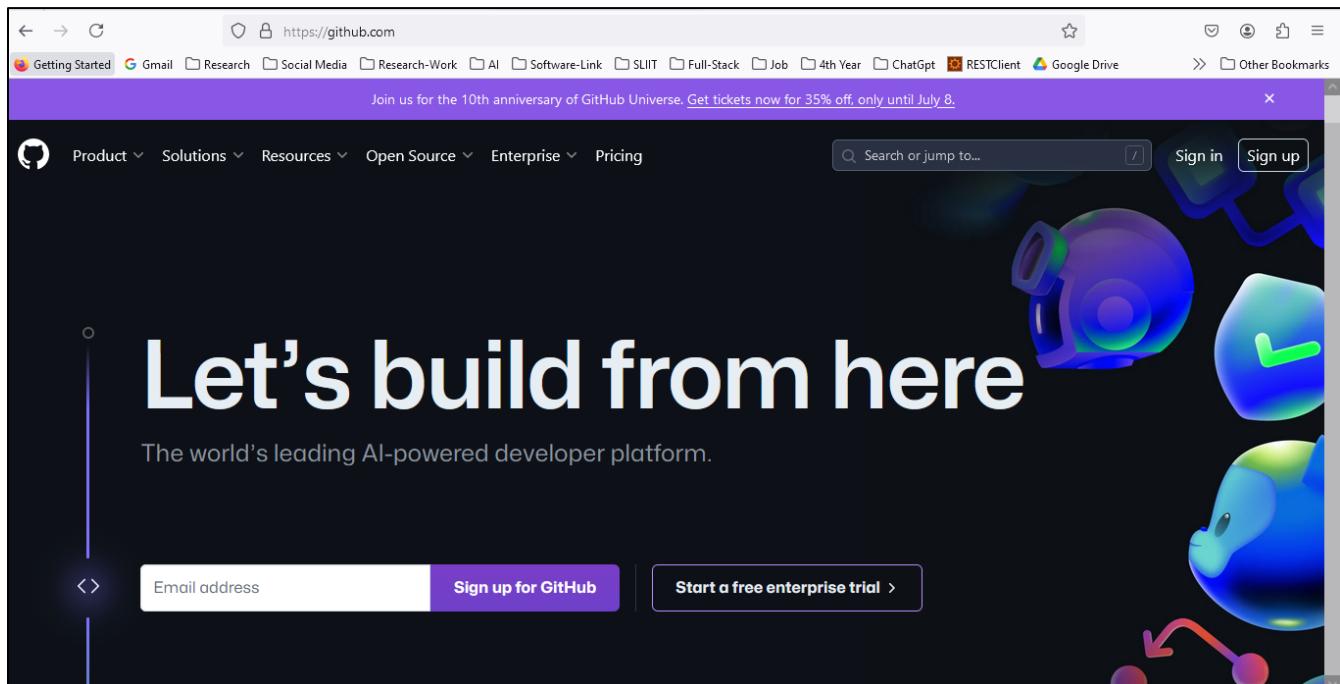
GitHub Account Creation

Step 1: Go to GitHub Website

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

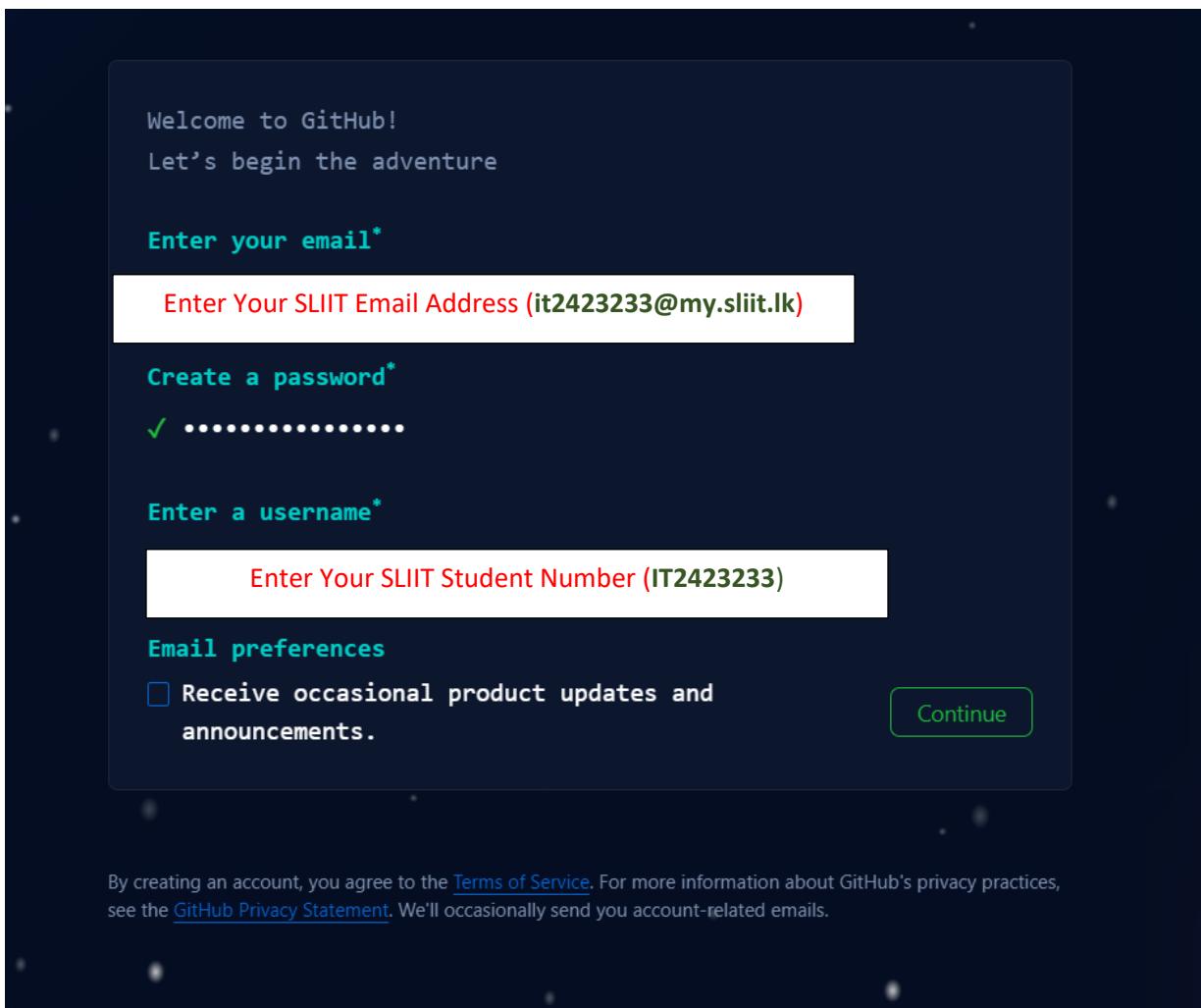
Step 2: Sign Up

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



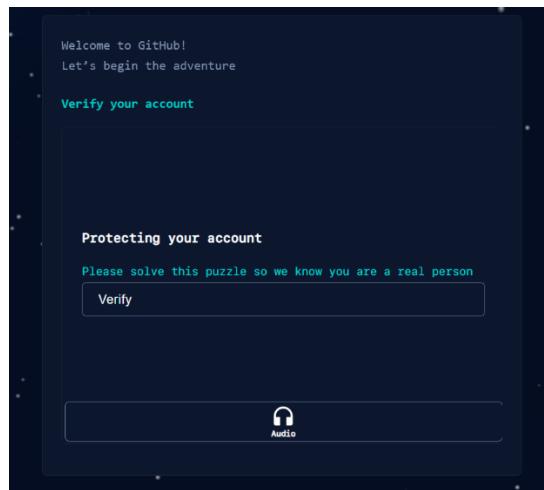
Step 3: Signup Details

- **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.**



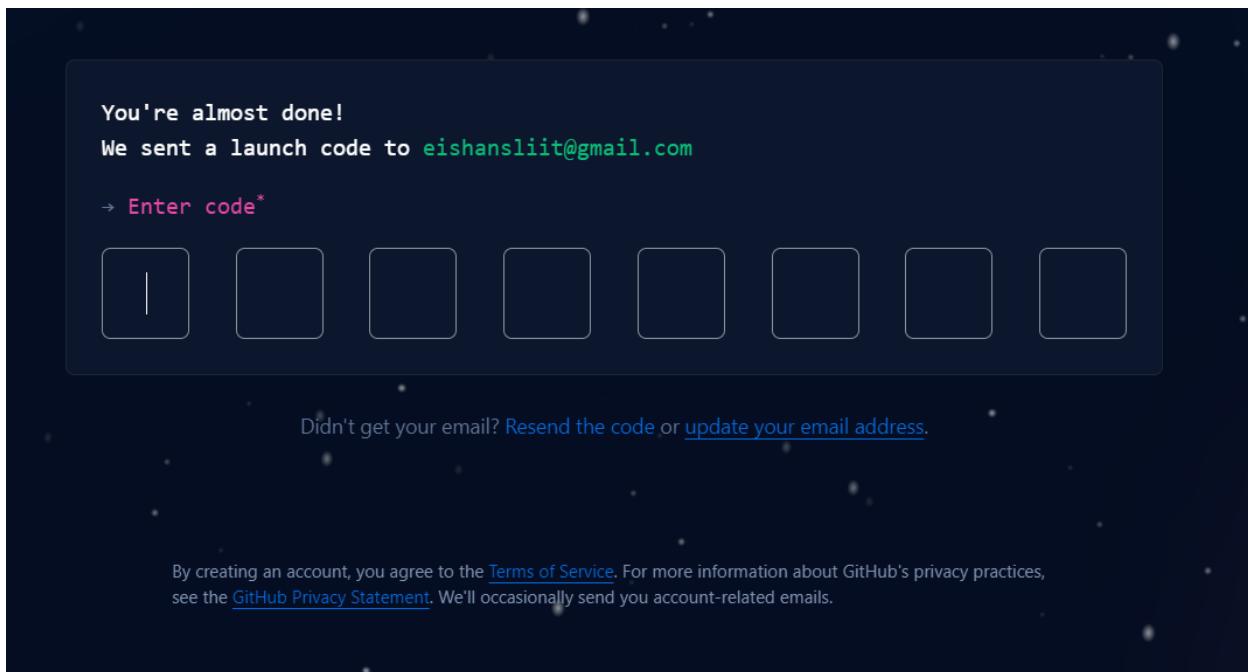
Step 4: Verify your Account

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



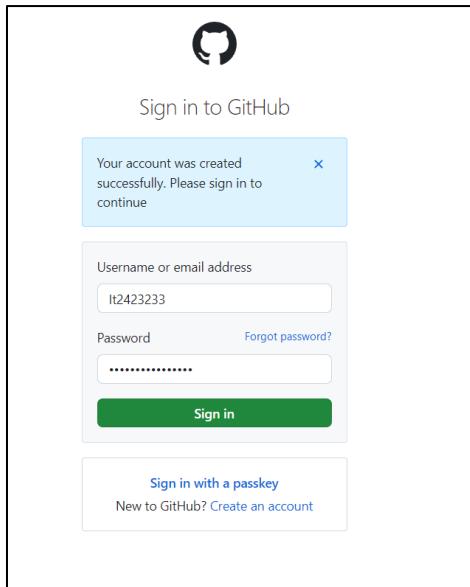
Step 5: Verify your Email address

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



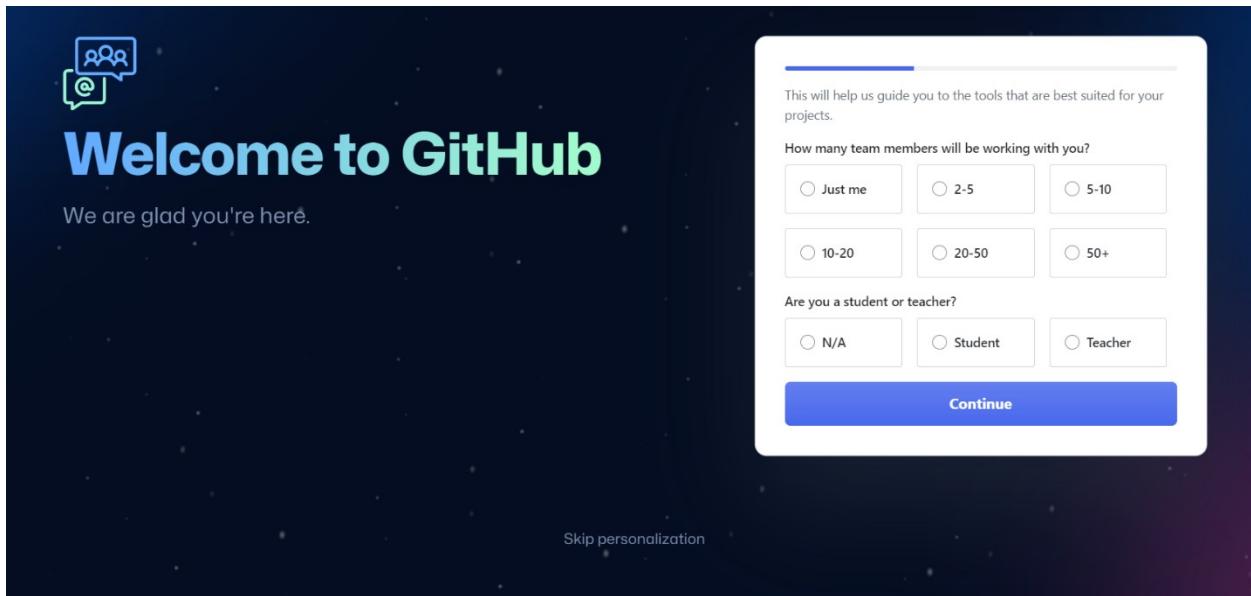
Step 6: Sign in to the GitHub

- 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.

The screenshot shows the GitHub Home page. On the left, there's a sidebar with "Create your first project" and buttons for "Create repository" and "Import repository". Below that is a "Recent activity" section. The main area has a "Home" header with a search bar and a "Send feedback" button. A "Updates to your homepage feed" card is present. To the right, there's a "UNIVERSE24" promotional box for GitHub Universe tickets. The bottom right corner features a "Latest changes" summary with several items listed.

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](#) [Import repository](#)

Recent activity
When you take actions across GitHub, we'll provide links to that activity here.

Home

Updates to your homepage feed

We've combined the power of the Following feed with the For you feed so there's one place to discover content on GitHub. There's improved filtering so you can customize your feed exactly how you like it, and a shiny new visual design. 🎉

[Learn more](#)

Start writing code

Start a new repository for It2423233
A repository contains all of your project's files, revision history, and collaborator discussion.

Repository name *
name your new repository...

Public
Anyone on the internet can see this repository

Private
You choose who can see and commit to this repository

[Create a new repository](#)

Introduce yourself with a profile README
Share information about yourself by creating a profile README, which appears at the top of your profile page.

It2423233 / README.md [Create](#)

1 - 🌟 Hi, I'm @It2423233
2 - 🌐 I'm interested in ...
3 - 🚧 I'm currently learning ...
4 - 🤝 I'm looking to collaborate on ...
5 - 📞 How to reach me ...
6 - 🛠 Pronouns: ...
7 - 🎉 Fun fact: ...
8

Latest changes

- Yesterday Pre-defined organization roles that grant access to all repositories
- Yesterday Dependabot migration to GitHub Actions for Enterprise Cloud and Free, Pro, and Teams...
- Yesterday Code security configurations are now GA
- 2 days ago Improved detection of existing CodeQL setups during at scale rollouts

[View changelog](#) →

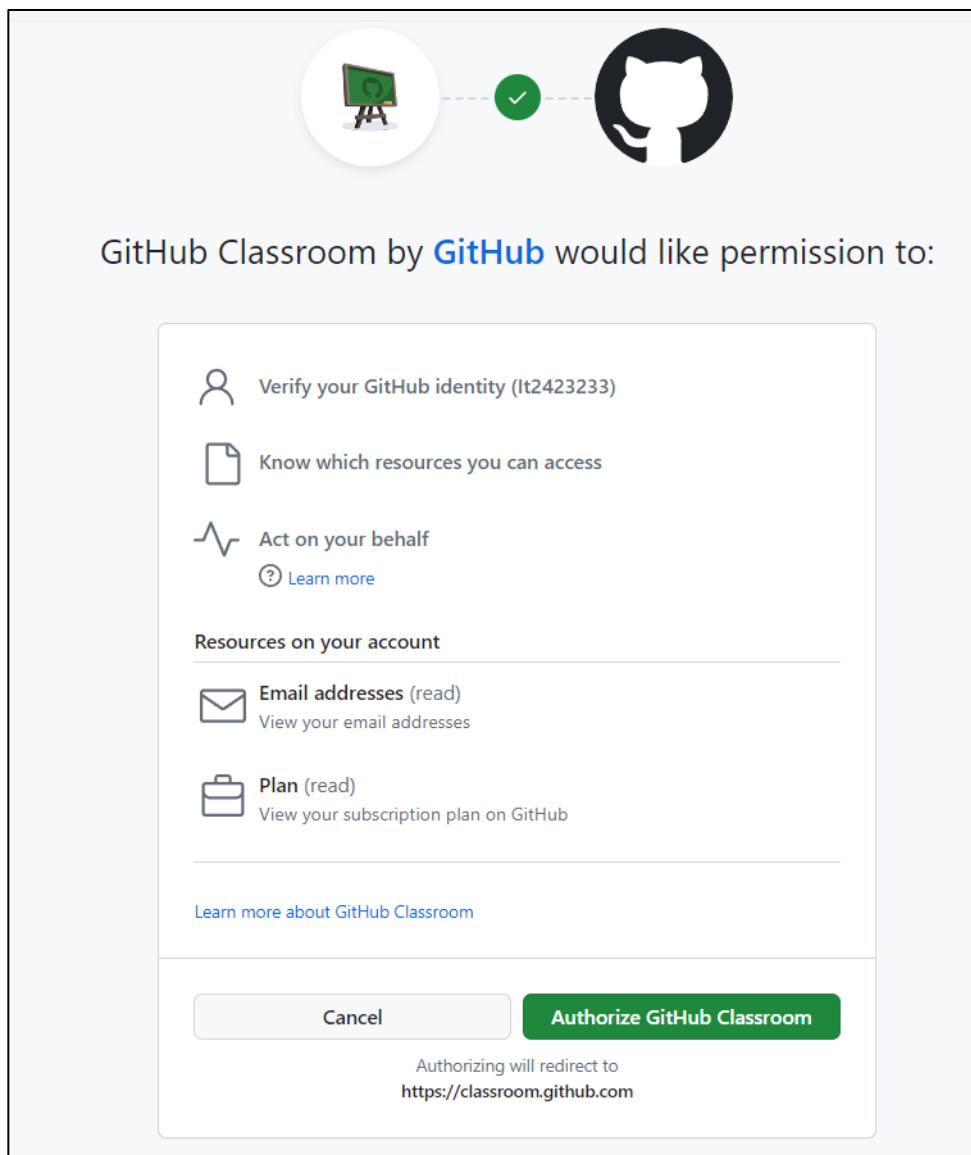
Submitting Lab Source Files to GitHub

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

Join the classroom:
IP-Test-Group-Name-Here

To join the GitHub Classroom for this course, please select yourself from the list below to associate your GitHub account with your school's identifier (i.e., your name, ID, or email).

Can't find your name? [Skip to the next step →](#)

Identifiers
II131313b
IT1313137
IT1313138
IT1313139
IT1313140
IT1313141
IT2423233

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.

IP-Test-Group-Name-Here

Accept the assignment —
IT1120 - Lab 01

Once you accept this assignment, you will be granted access to the [it1120-lab-01-It2423233](#) repository in the [SLIIT-IP](#) organization on GitHub.

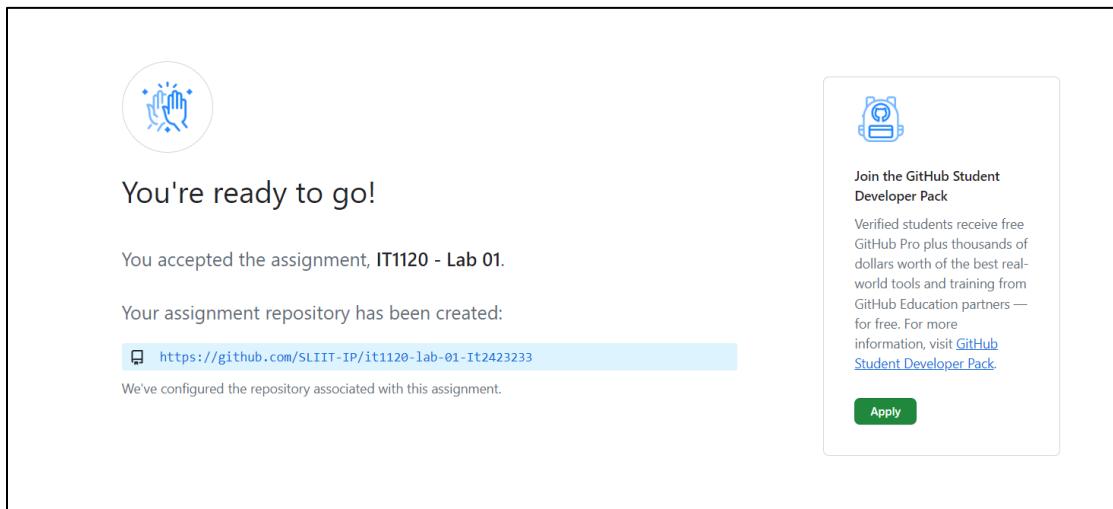
[Accept this assignment](#)

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.**

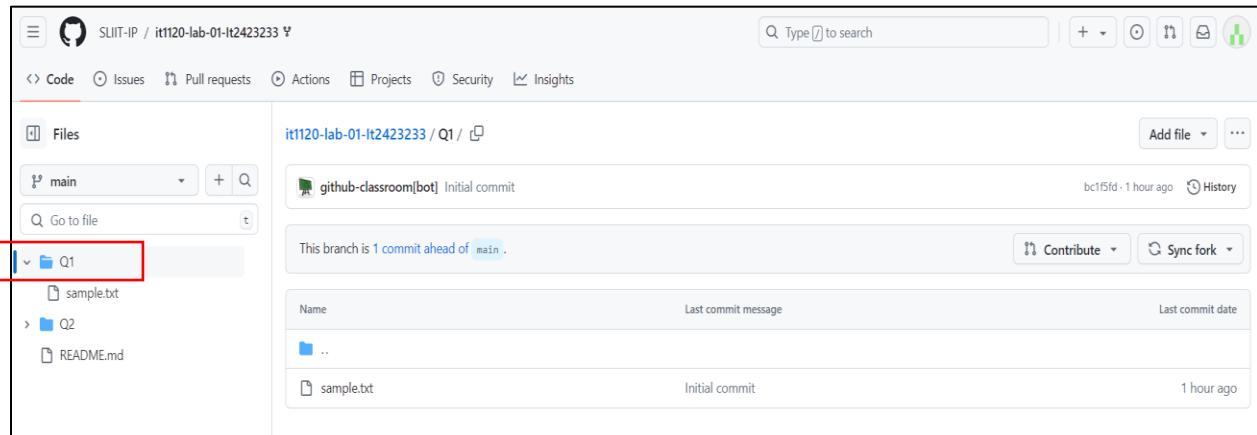


- Clicking the generated URL of your repository it will be redirected to your newly created GitHub repository

A screenshot of a GitHub repository page for "it1120-lab-01-It2423233". The repository is private and was forked from "SIUIT-IP/ip-test-group-name-here-it1120-lab-01-IT1120---Test-Template". The main branch has 1 commit ahead of the main branch. The commit history shows three commits: "Update README.md" by "It2423233" (efcd061), "Initial commit" by "Q1" (47 minutes ago), and "Initial commit" by "Q2" (47 minutes ago). The repository contains a README file with the content "IP-Test-Lab" and "Test Lab". The sidebar on the right provides information about the repository, including its status as a GitHub Classroom project, and sections for Releases, Packages, and Insights.

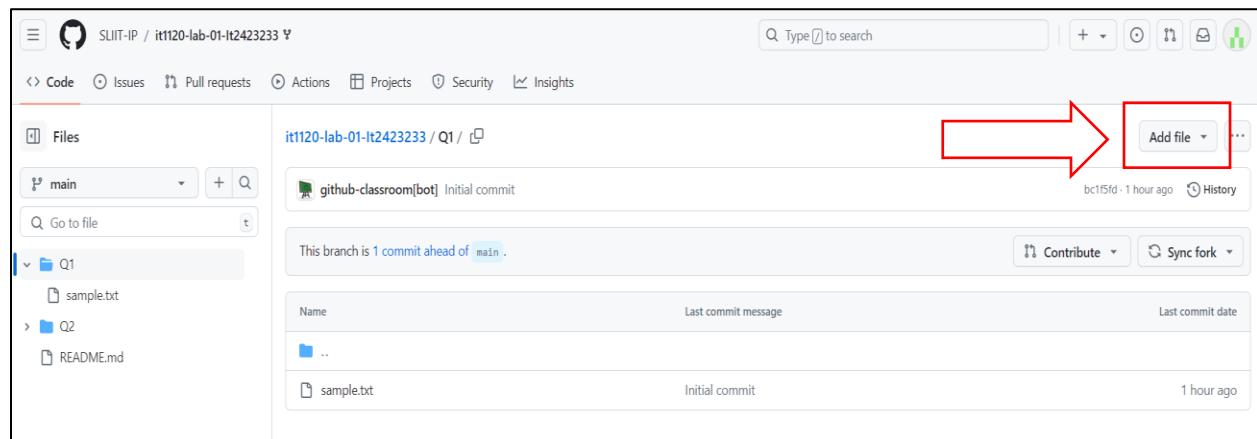
Step 6: Access the Folder you want to submit the answer

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



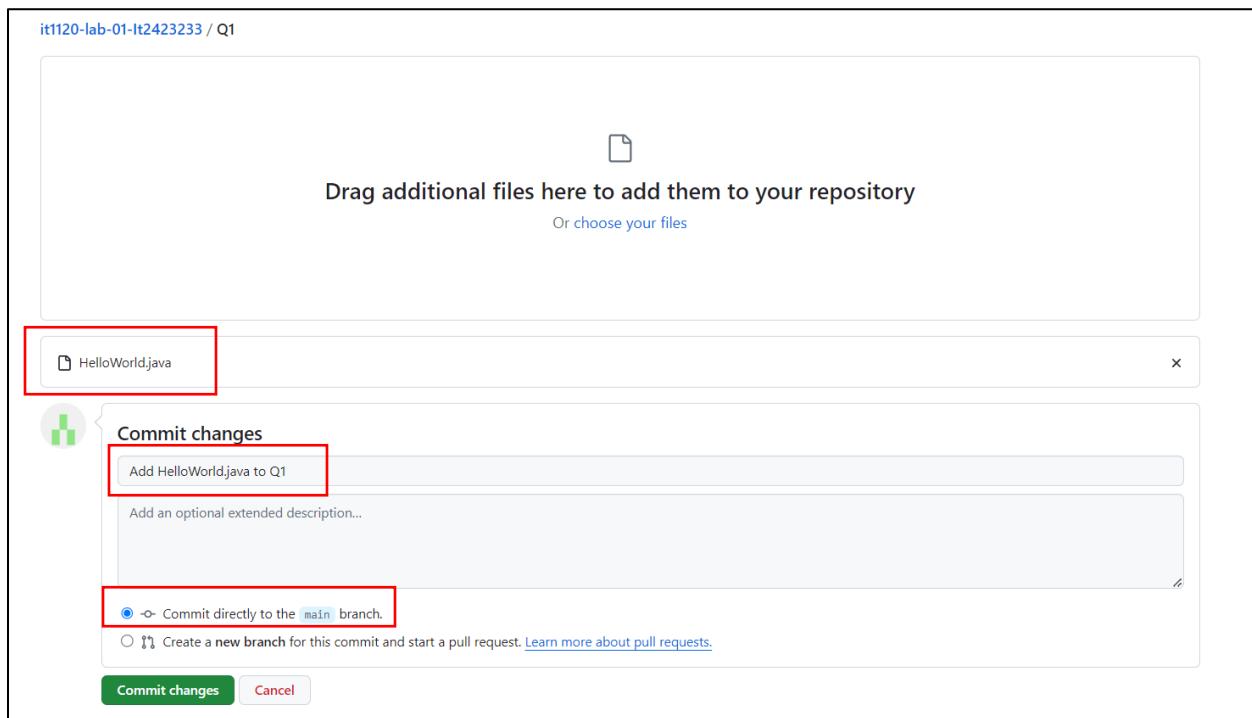
Step 7: Upload the Java Files

- 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.