AMERICAN INTERNATIONAL UNIVERSITY-BANGLADESH
Faculty of Science and Technology

Assignment Cover Sheet

Assignment Title:	Documentation of Selenium Installation and Tesing Process Flowchart

Assignment No:	01	Date of Submission:	17 July 2022

Course Title:	Software Quality and Testing

Course Code:	CSC 4271	Section:	A

Semester:	Summer	2021-22	Course Teacher:	Abhijit Bhowmik

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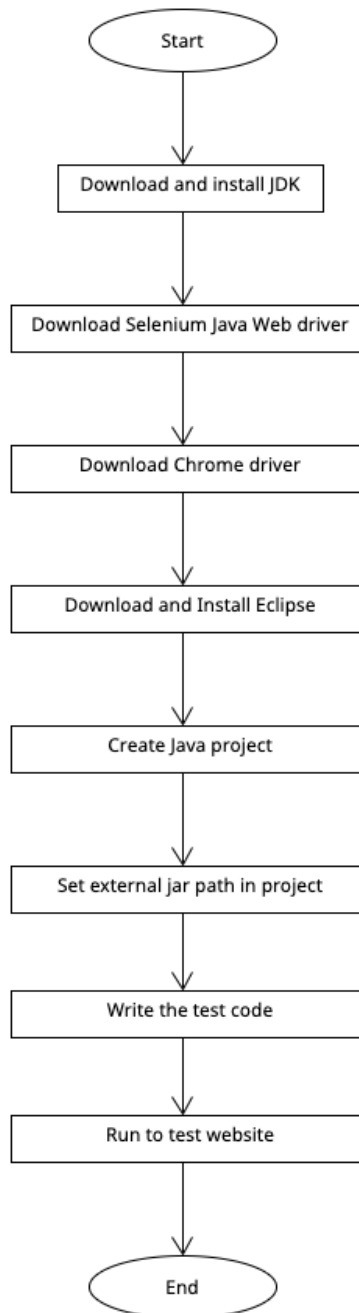| |
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Selenium is an automated testing framework used to validate web applications across different browsers and platforms. The Selenium download and installation process as well as how the system can be prepared to test a project have been demonstrated through a flowchart and step by step description along with the screenshots, which will be able to guide a new user who is interested in downloading and installing Selenium and using it for testing a project.

Flowchart :

```
                    ┌─────────┐
                    │  Start  │
                    └─────────┘
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                         ▼
            ┌──────────────────────────┐
            │  Download and install JDK │
            └──────────────────────────┘
                         │
                         ▼
        ┌──────────────────────────────────┐
        │ Download Selenium Java Web driver │
        └──────────────────────────────────┘
                         │
                         ▼
            ┌──────────────────────────┐
            │   Download Chrome driver  │
            └──────────────────────────┘
                         │
                         ▼
            ┌──────────────────────────┐
            │ Download and Install Eclipse │
            └──────────────────────────┘
                         │
                         ▼
            ┌──────────────────────────┐
            │    Create Java project    │
            └──────────────────────────┘
                         │
                         ▼
            ┌──────────────────────────┐
            │ Set external jar path in project │
            └──────────────────────────┘
                         │
                         ▼
            ┌──────────────────────────┐
            │     Write the test code   │
            └──────────────────────────┘
                         │
                         ▼
            ┌──────────────────────────┐
            │    Run to test website    │
            └──────────────────────────┘
                         │
                         ▼
                    ┌─────────┐
                    │   End   │
                    └─────────┘
```

1. Download and install JDK

Step-1:

Visit the https://www.oracle.com/java/technologies/downloads/ page and click the Arm 64 Compressed Archive file to download it.

Note: Download the file which is compatible with the operating system that is being used.

Step-2:

Run the installer to start the installation of JDK.
Note: The JDK installation process that has been demonstrated is for Mac OS.

Step-3:
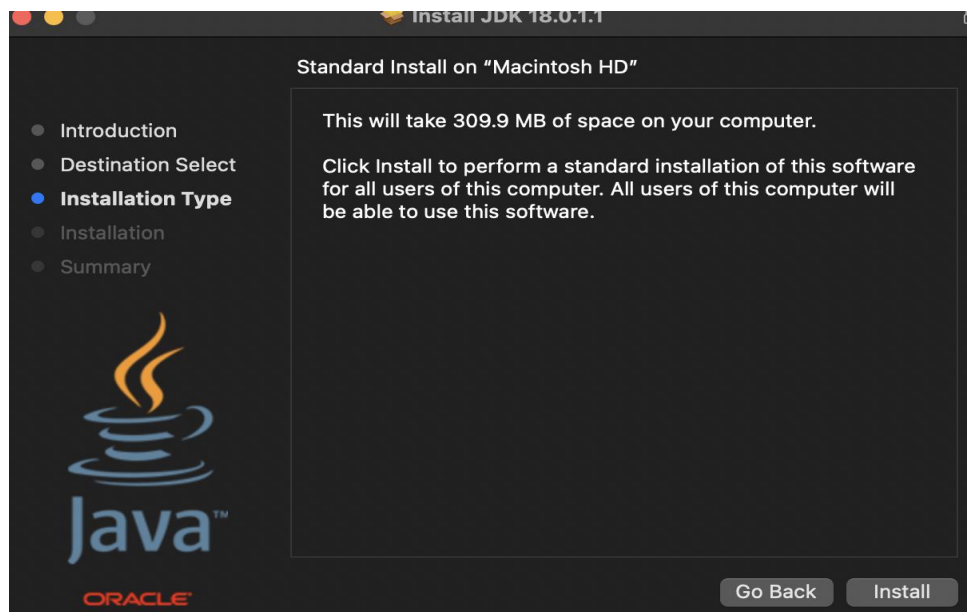
Select the file installation destination and click install.

Step-4:
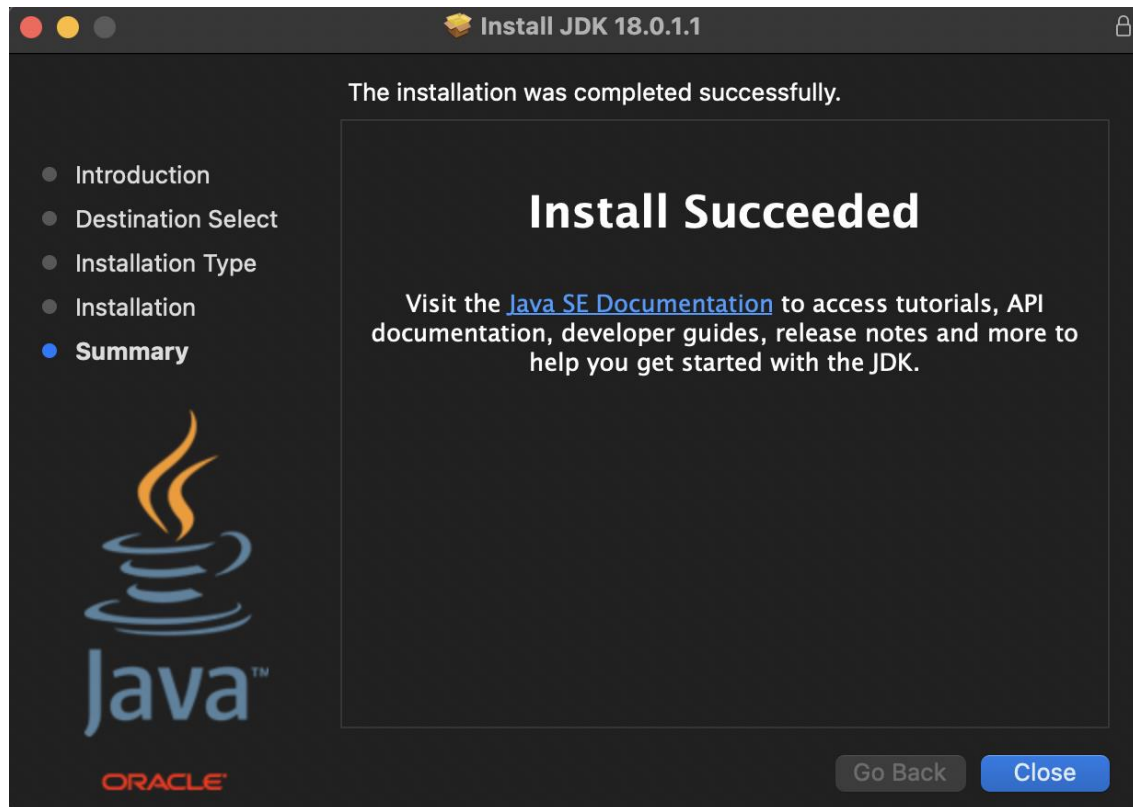
After completion of the JDK installation process, close the installer window.

2. Download Selenium Java Web driver

Step-5:
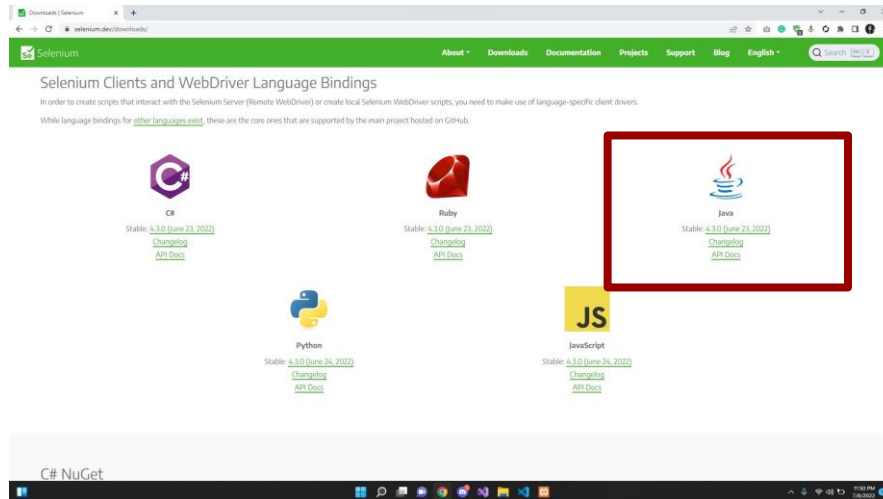
Visit https://www.selenium.dev/downloads/ and click Java because the Java web driver will be used for Selenium.

Step-6:
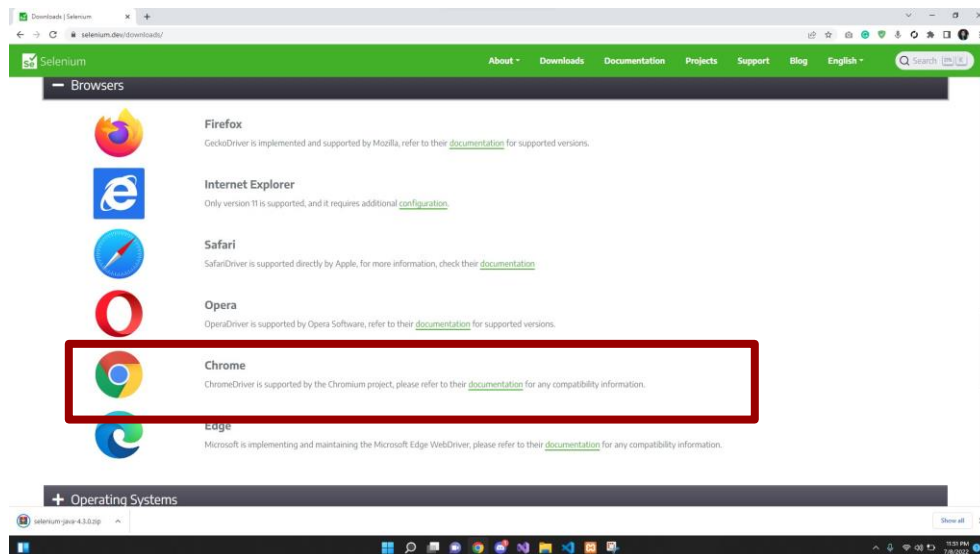
Scroll down and among the browsers list, select Chrome Driver because the testing process will run the website on Google Chrome.

3. Download Chrome driver

Step-7:
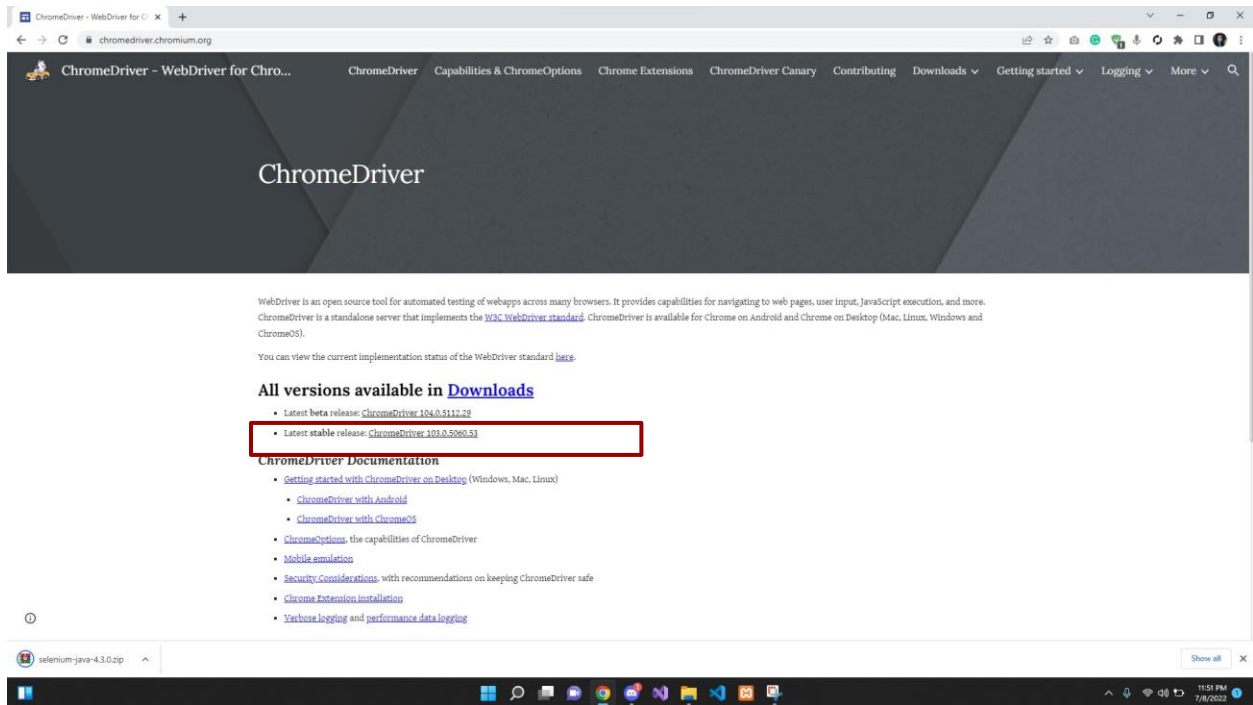
Visit https://chromedriver.chromium.org/ and click the latest stable release link.

Step-8:

Download the file according to the operating system that is being used.

4. Download and Install Eclipse

Step-9:
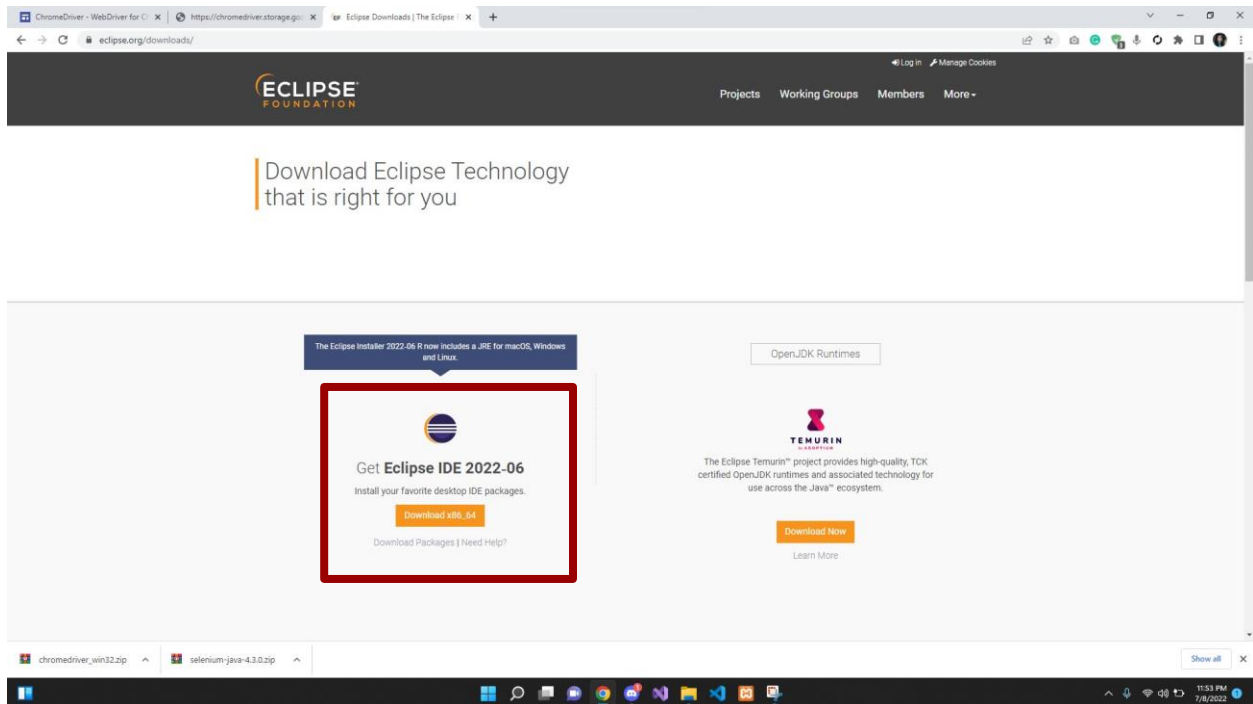
Visit https://www.eclipse.org/downloads/ and download the Eclipse IDE.

Step-10:

Select the Eclipse IDE for Java Developers.

Step-11:

Select the installation folder and click Install to start the Eclipse IDE installation process.

Step-12:
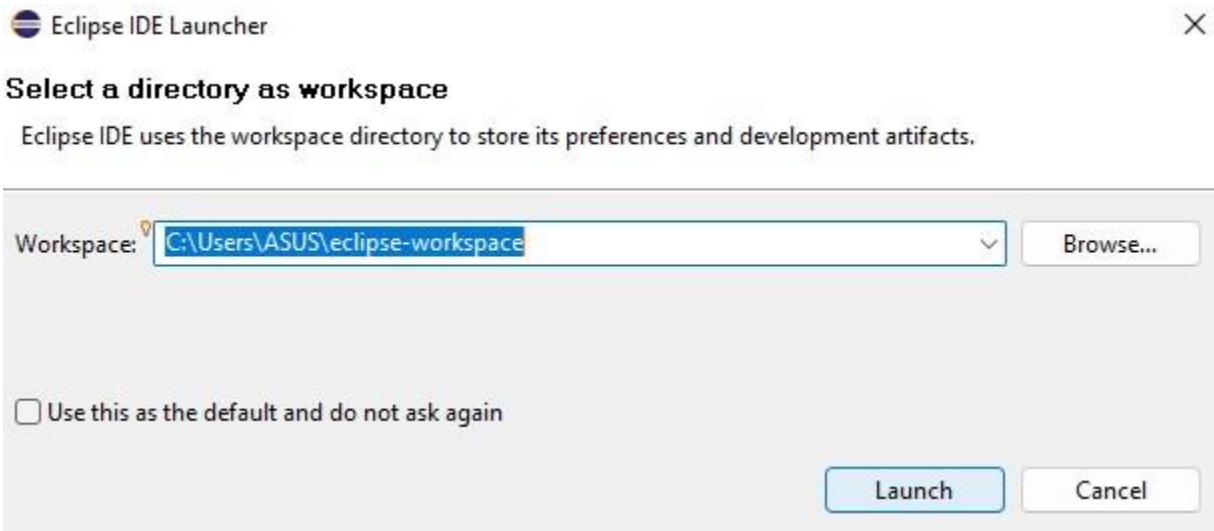
Choose the workspace and click launch.
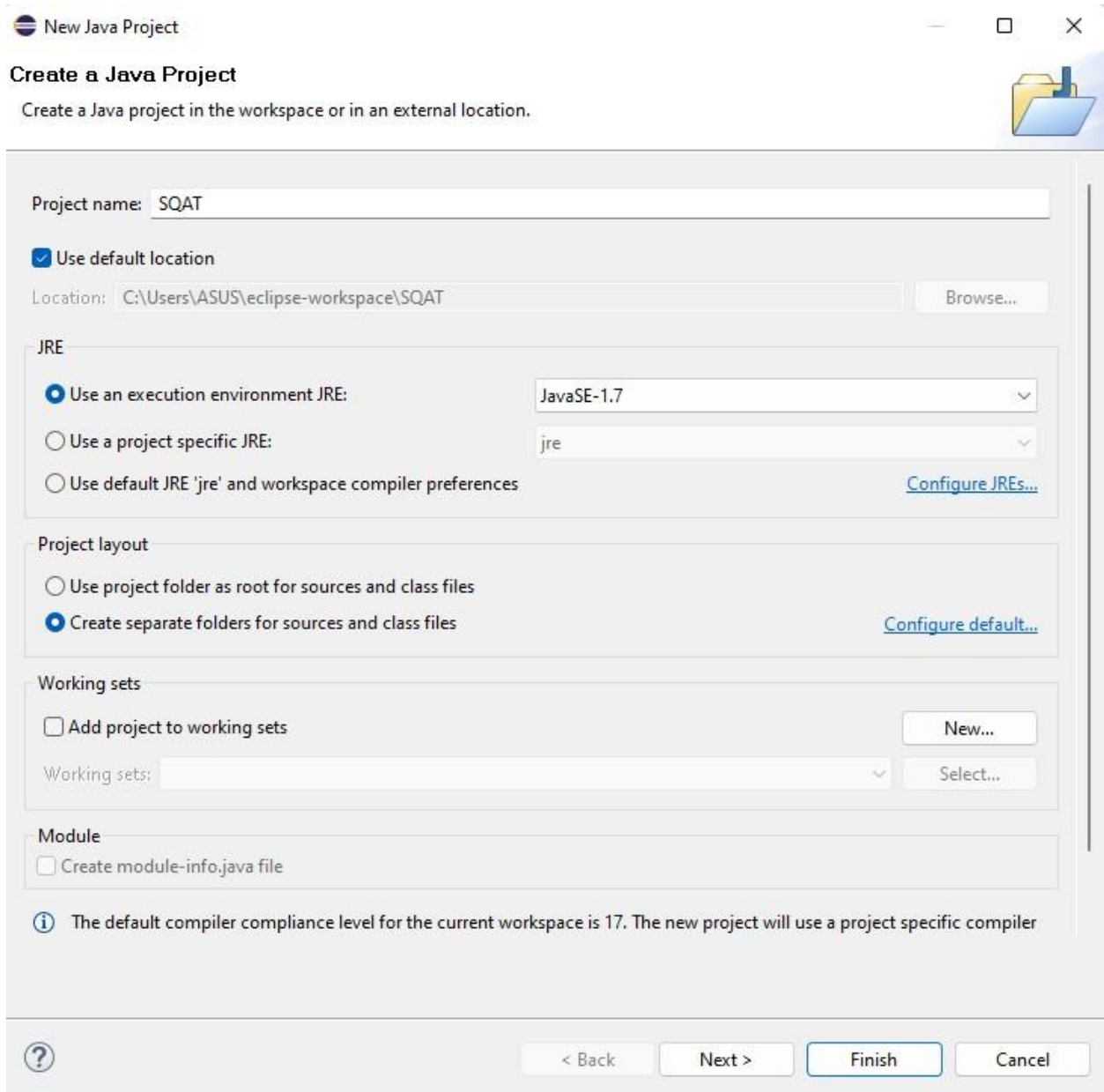
Step-13:
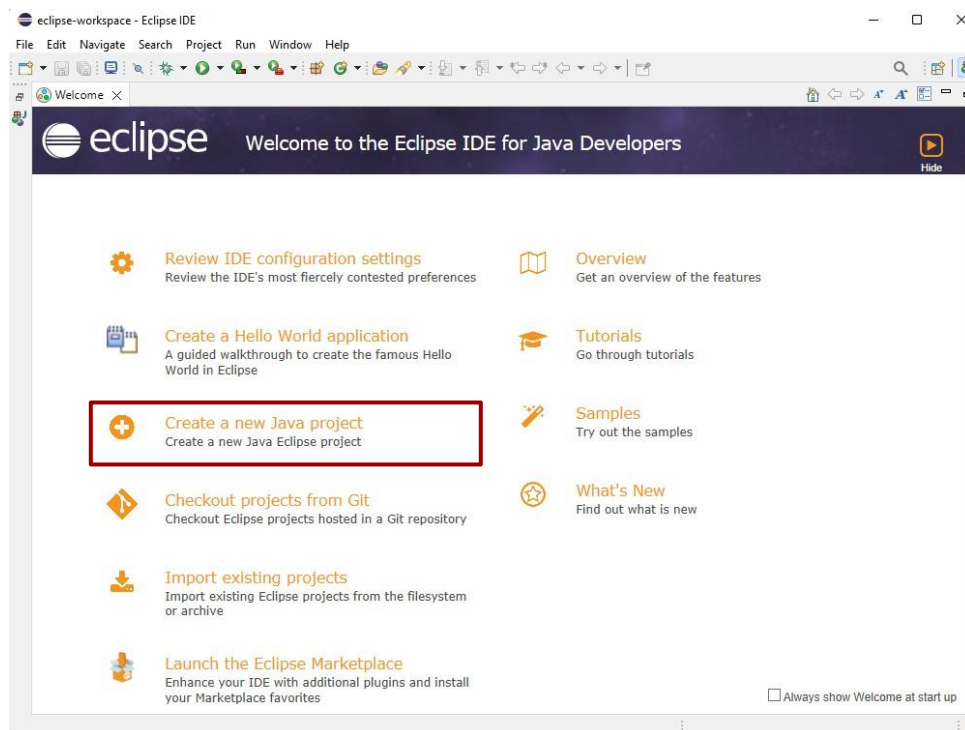
After the completion of installation, Eclipse will display the home page.
Now, select Create a new Java project.

5. Create Java project

Step-14:

Write the project name and select JavaSE-1.7 as the execution environment JRE.
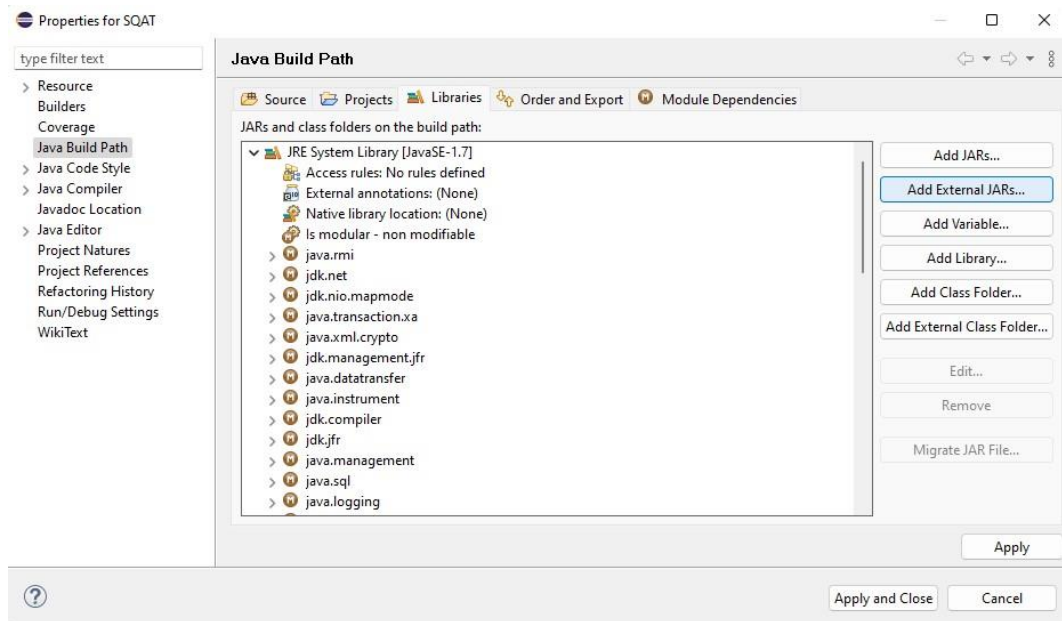Click Finish.

Step-14:
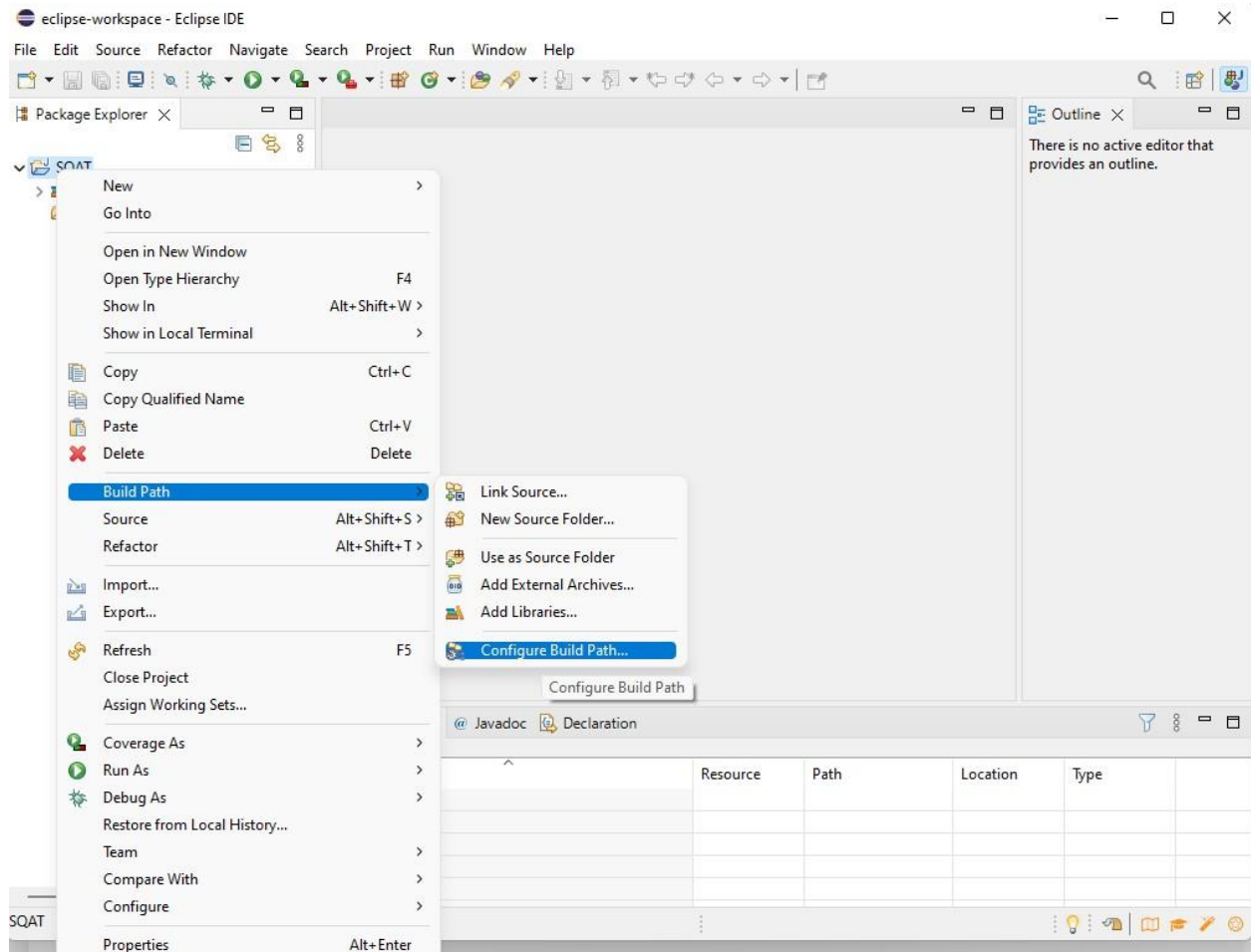
Right click on the project name and select Built Path and then select Configure Build Path.
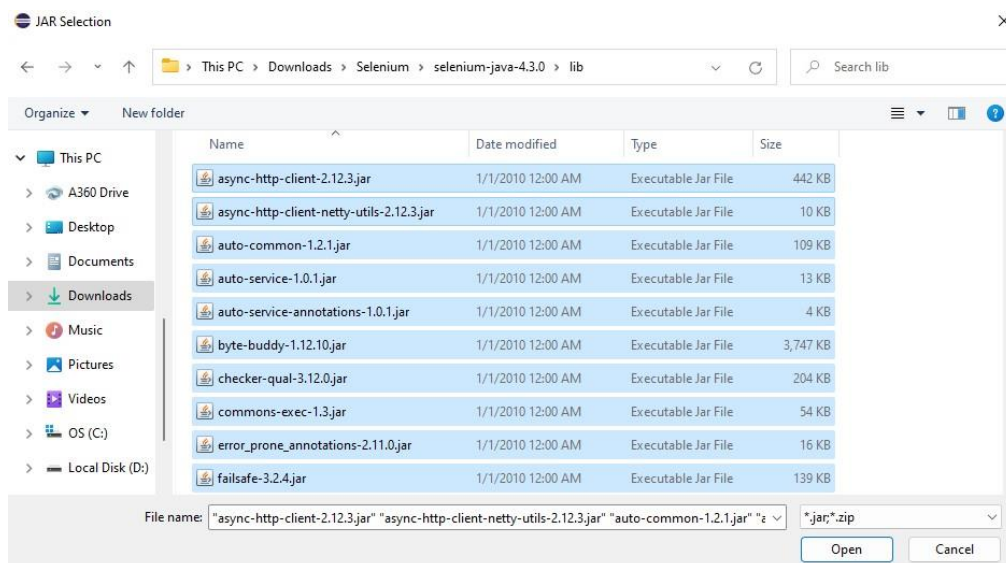
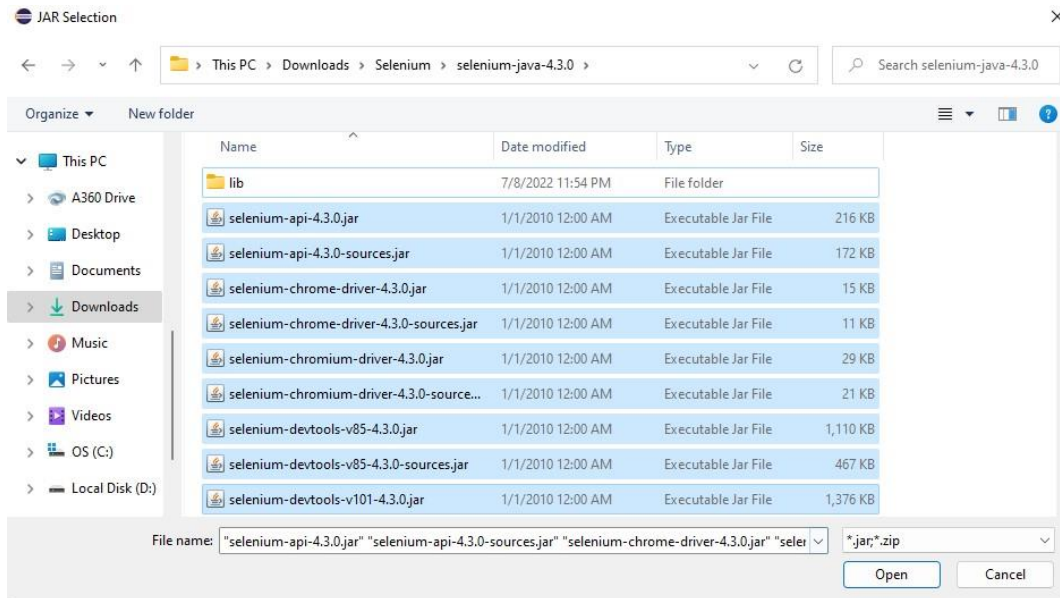# 6.Set external JAR path in project

Step-15:

Click Add External JARs to add the jar files.
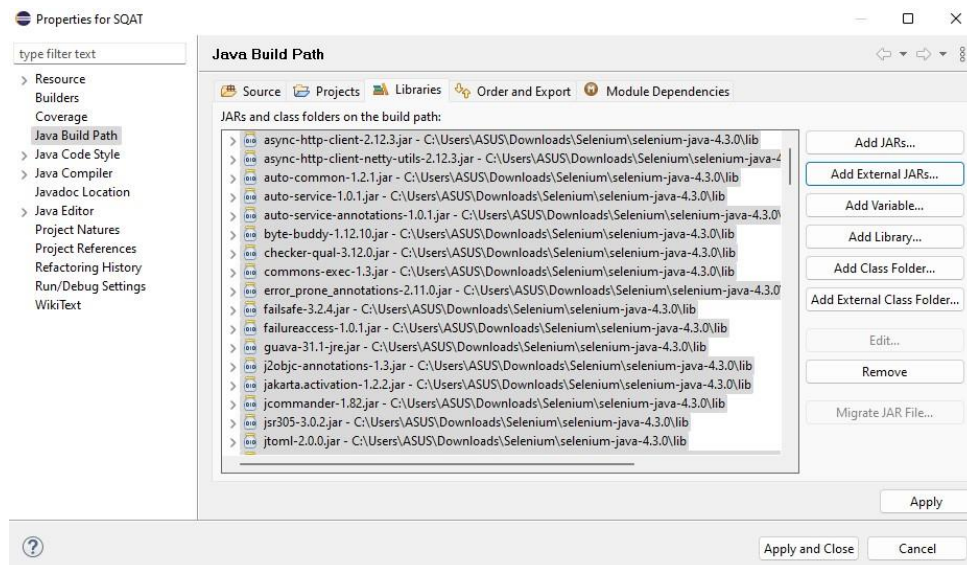
Step-16:

Select the jar files from the lib folder from the downloaded Selenium Java folder.

Step-17:

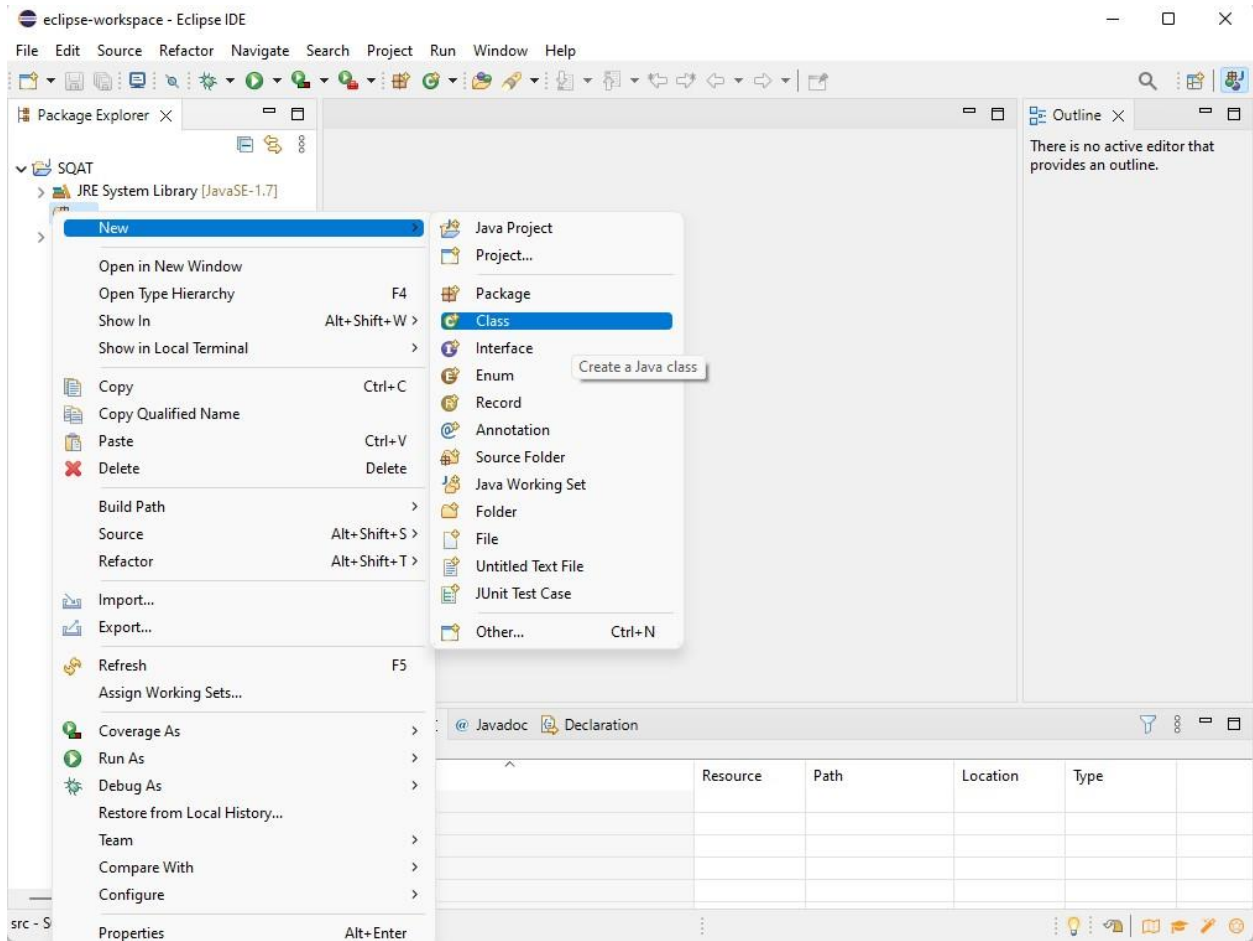Select jar files from the downloaded Selenium Java folder.

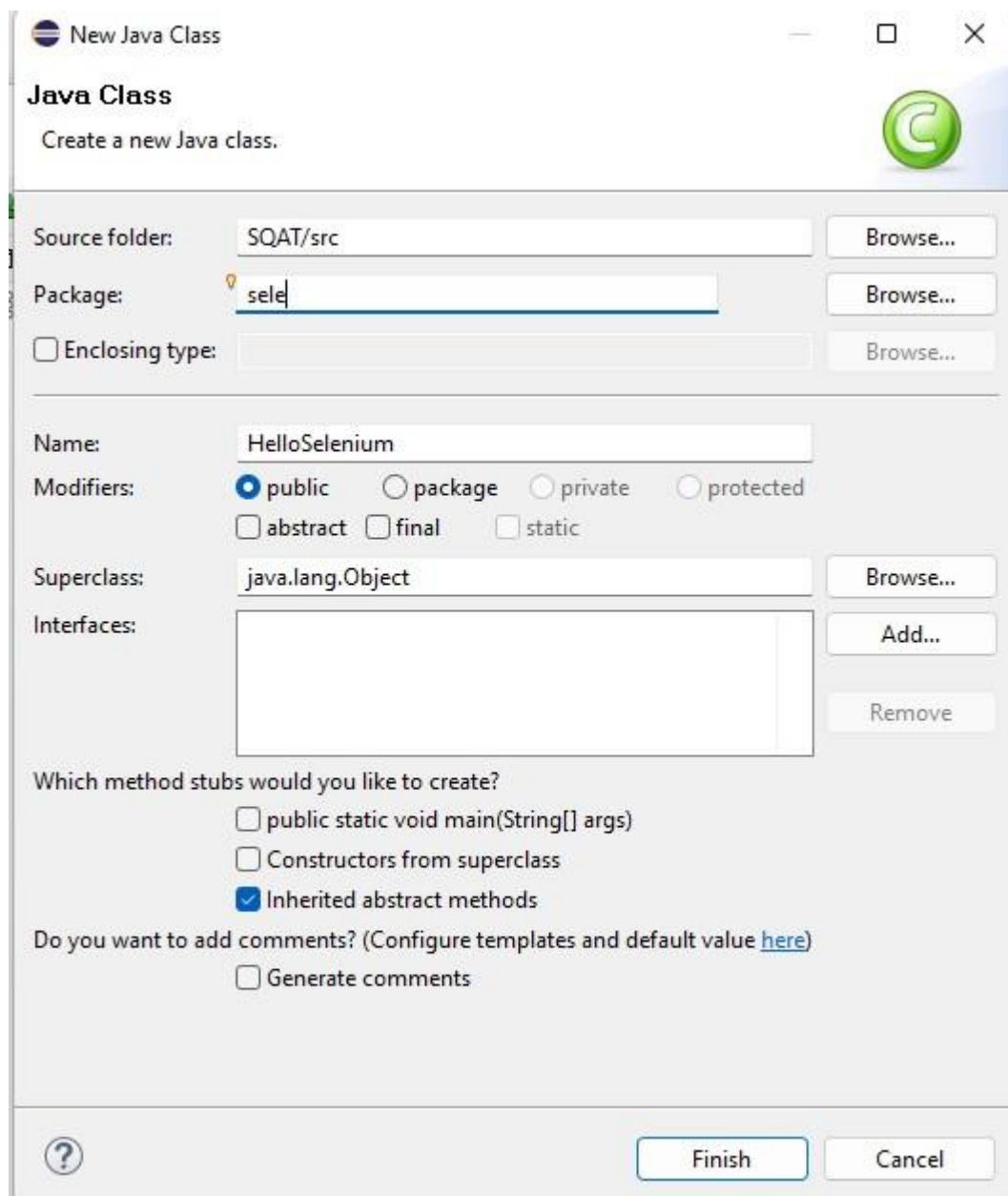**Step-18:**

After adding the JARs, click Apply and Close.

7. Write the test code

Step-19:

Right click on the src and click New, then choose Class to create a New Java Class.

Step-20:

Write the package name and the class name. Then click Finish.

Step-21:
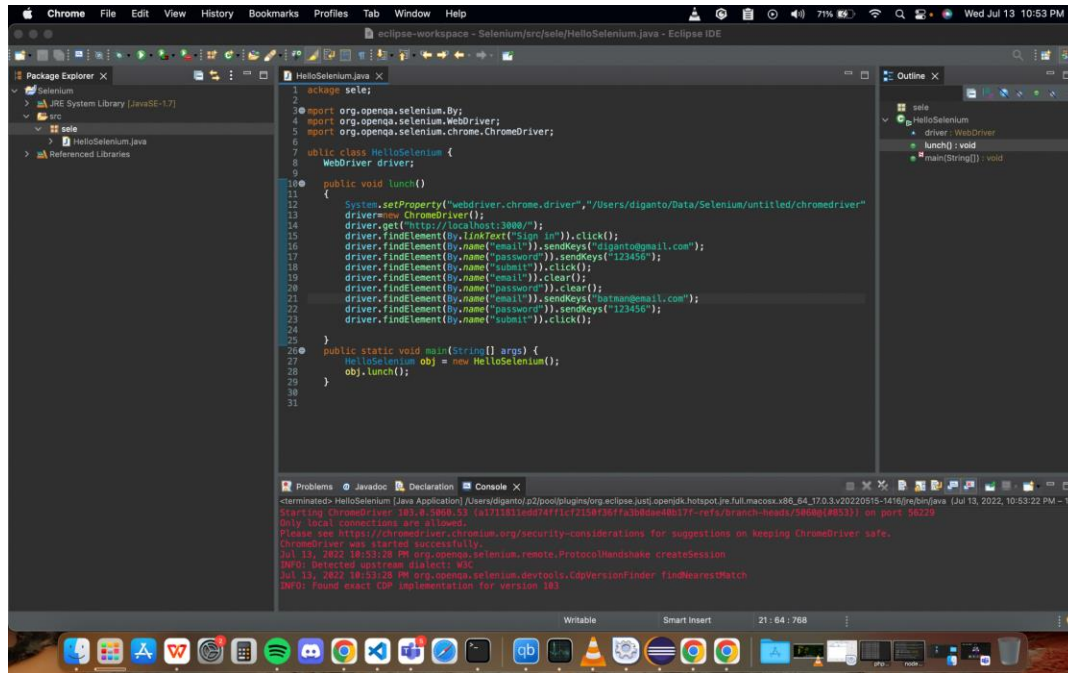

Write testing code in order to test an existing project.

Firstly, set property for chromedriver. Then add the website link which will be tested. Here, provide the email and password for sign in. At first, wrong email and password which doesn't exist in the database were given that didn't let the user log in and finally correct email and password were given which let the user log in successfully.
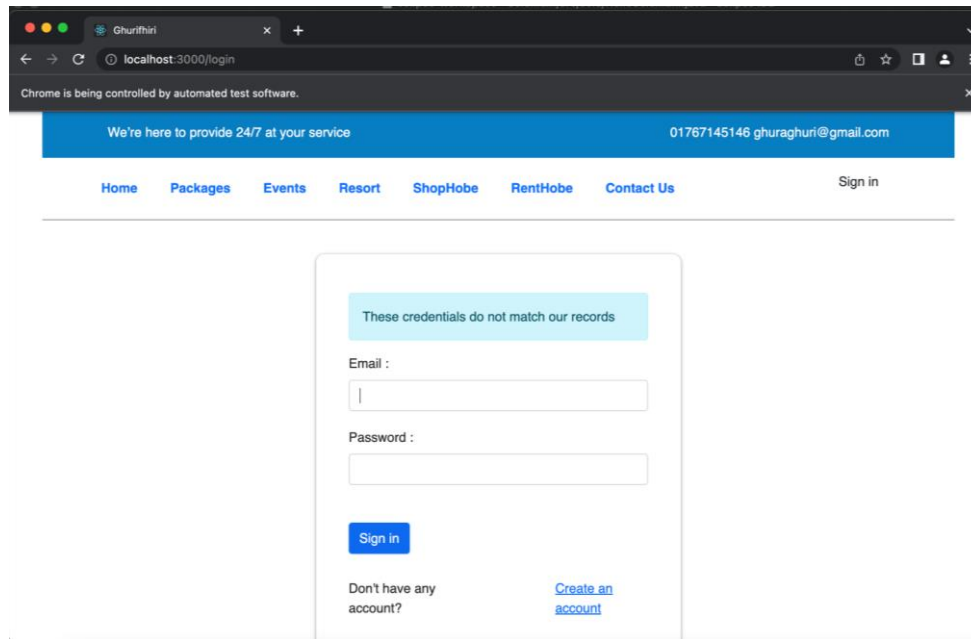
Step-22:
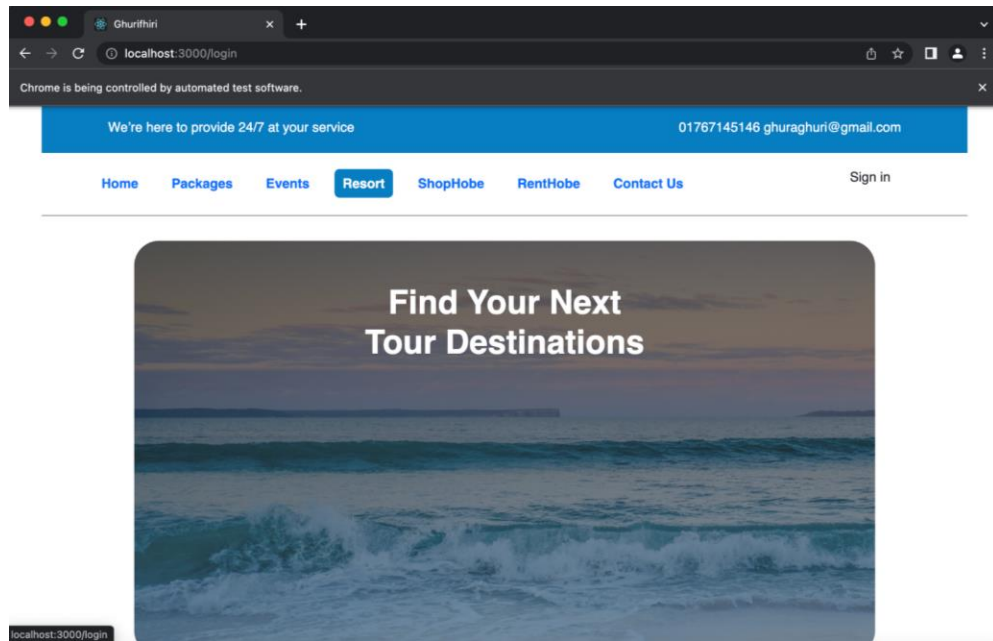
After running the code, initially it takes to the website that is being tested.
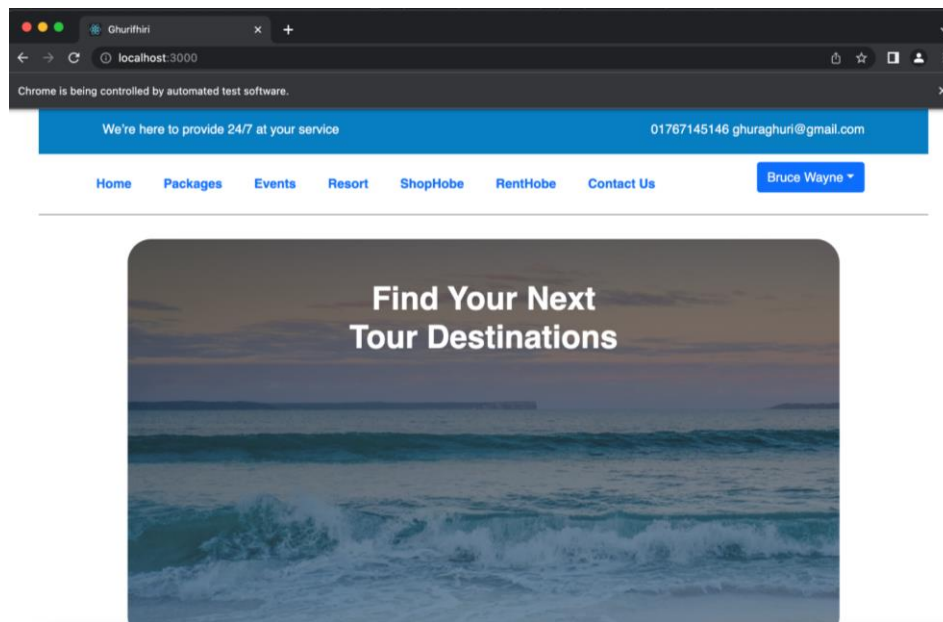
Step-23:
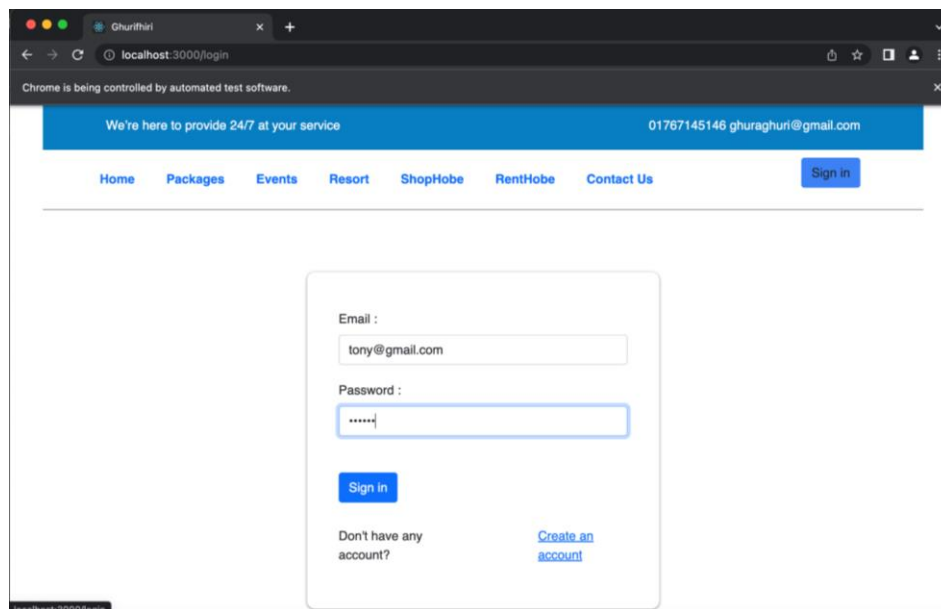
Here, wrong email and password were provided, which gave an error message in the next step.

Step-24:

The wrong email and password caused an error message for providing wrong information that does not exist in the database..

Finally, the user has been logged in successfully with the correct email and password. The username is visible on the screen.