

# **Setup Selenium Java Project - Java, Maven, IntelliJ IDEA (Quick Guide Setup)**

Prepared by :-  
**Kushal Parikh**  
Driving Quality Through Automation

## • Setting up Java & Maven Environment Variables

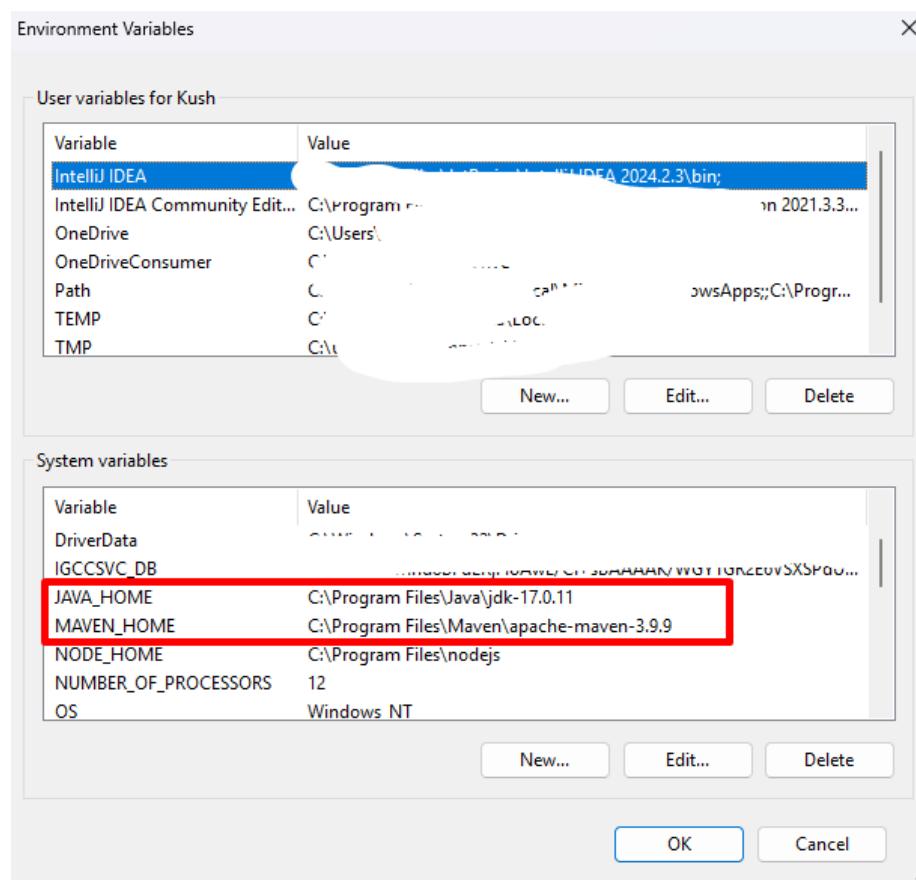
### ■ Install & Configure Java

- ✓ Step 1: Check if Java is installed using Command Line CMD:

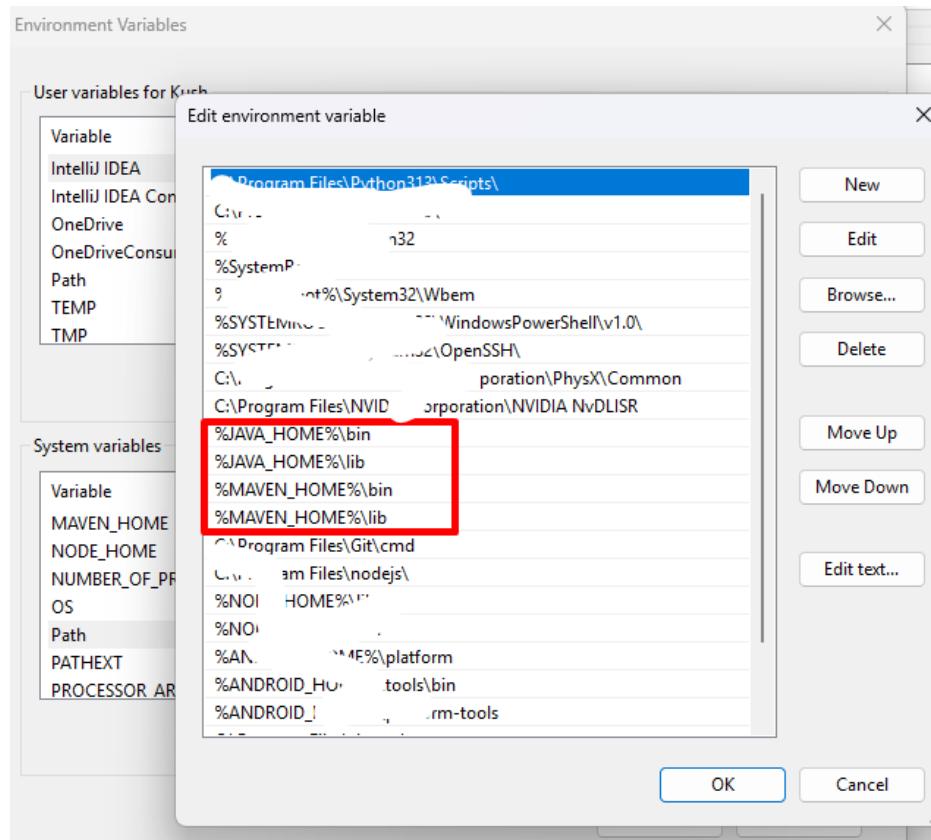
```
java -version
```

- ✓ Step 2: If not installed, download and install Java:

- Windows/Mac/Linux: [Download JDK](#)
- ✓ Step 3: Set environment variables:
- Windows:
  1. Go to **System Properties** → **Advanced** → **Environment Variables**
  2. Add **JAVA\_HOME = C:\Program Files\Java\jdk-XX**



- 3. Add **JAVA\_HOME\bin** to **Path**



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Mac/Linux: Add to `~/.bashrc` or `~/.zshrc`:

```
export JAVA_HOME=/Library/Java/JavaVirtualMachines/jdk-XX.jdk/Contents/Home
export PATH=$JAVA_HOME/bin:$PATH
```

•

**✓ Step 4: Verify setup - Open Command Line CMD**

```
java -version
```

A screenshot of a Windows Command Prompt window titled 'Command Prompt'. The window shows the following text:

```
Microsoft Windows [Version 10.0.26100.3194]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Kush>java -version
java version "17.0.11" 2024-04-16 LTS
Java(TM) SE Runtime Environment (build 17.0.11+7-LTS-207)
Java HotSpot(TM) 64-Bit Server VM (build 17.0.11+7-LTS-207, mixed mode, sharing)
```

The command 'java -version' was entered at the prompt, and the output shows the Java version and runtime details.

## ■ **2 Install & Configure IntelliJ IDEA**

- Step 1:** Download and install [IntelliJ IDEA](#) (Community Edition is free).
  - Step 2:** Install **Maven Plugin** (comes pre-installed in IntelliJ).
- 

## ■ **3 Install & Configure Maven**

- Step 1:** Check if Maven is installed:

```
mvn -version
```



```
Command Prompt + ▾

Microsoft Windows [Version 10.0.26100.3194]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Kushal>mvn -version
Apache Maven 3.9.9 (8e8579a9e76f7d015ee5ec7bfc97d260186937)
Maven home: C:\Program Files\Maven\apache-maven-3.9.9
Java version: 17.0.11, vendor: Oracle Corporation, runtime: C:\Program Files\Java\jdk-17.0.11
Default locale: en_IN, platform encoding: Cp1252
OS name: "windows 11", version: "10.0", arch: "amd64", family: "windows"
```

- Step 2:** If not installed, download & install:

[!\[\]\(05be7c7a8995decd503647c99211f7c2\_img.jpg\) Download Apache Maven](#)

- Step 3:** Set environment variables:

- **Windows:**

1. Add MAVEN\_HOME = C:\apache-maven-XX
2. Add MAVEN\_HOME\bin to Path

**Note - Already shown maven variables in above screenshots for Java environments**

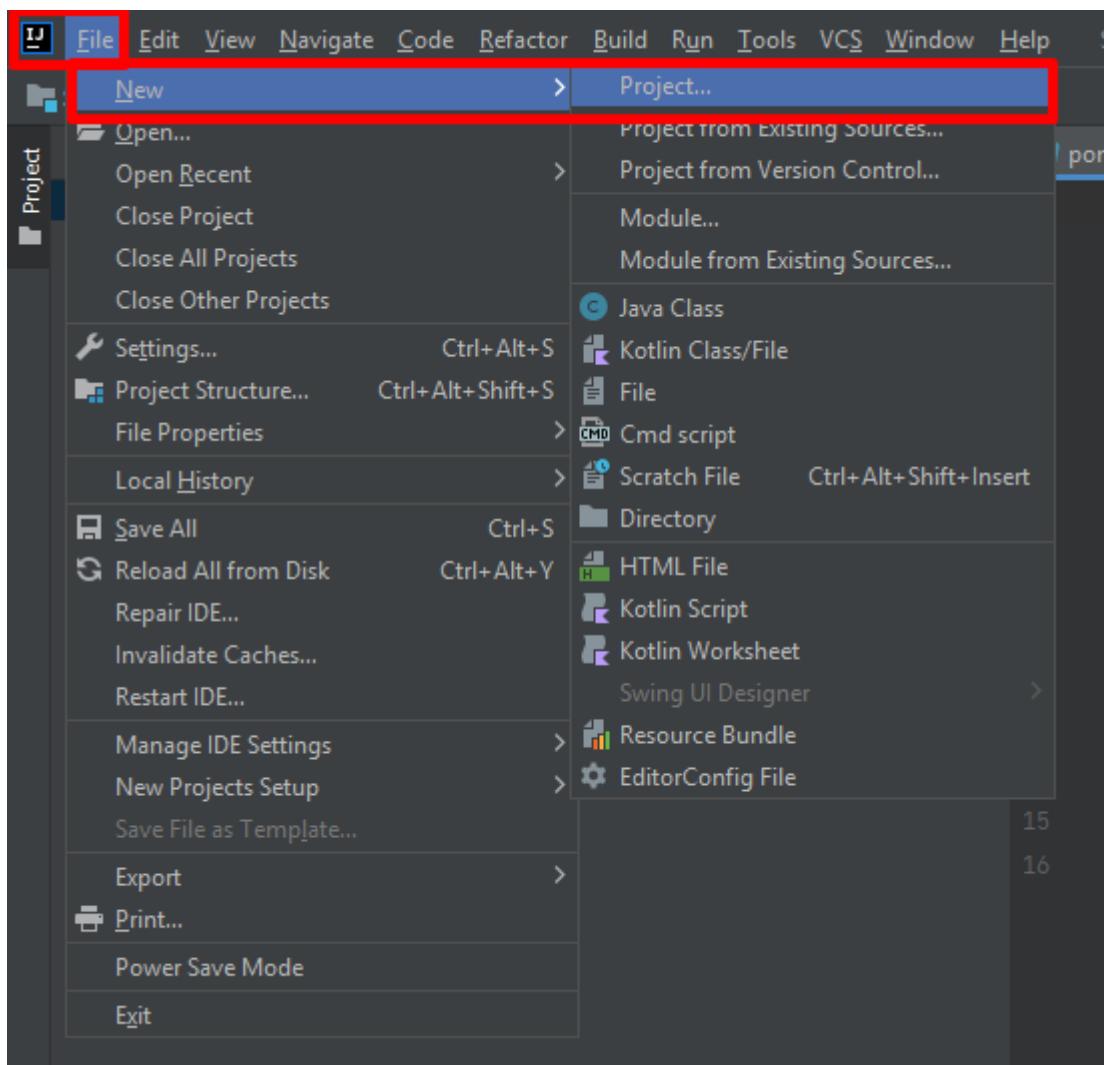
- Step 4:** Verify setup:

```
mvn -version
```

- **Selenium Java Project Setup - Create Project**

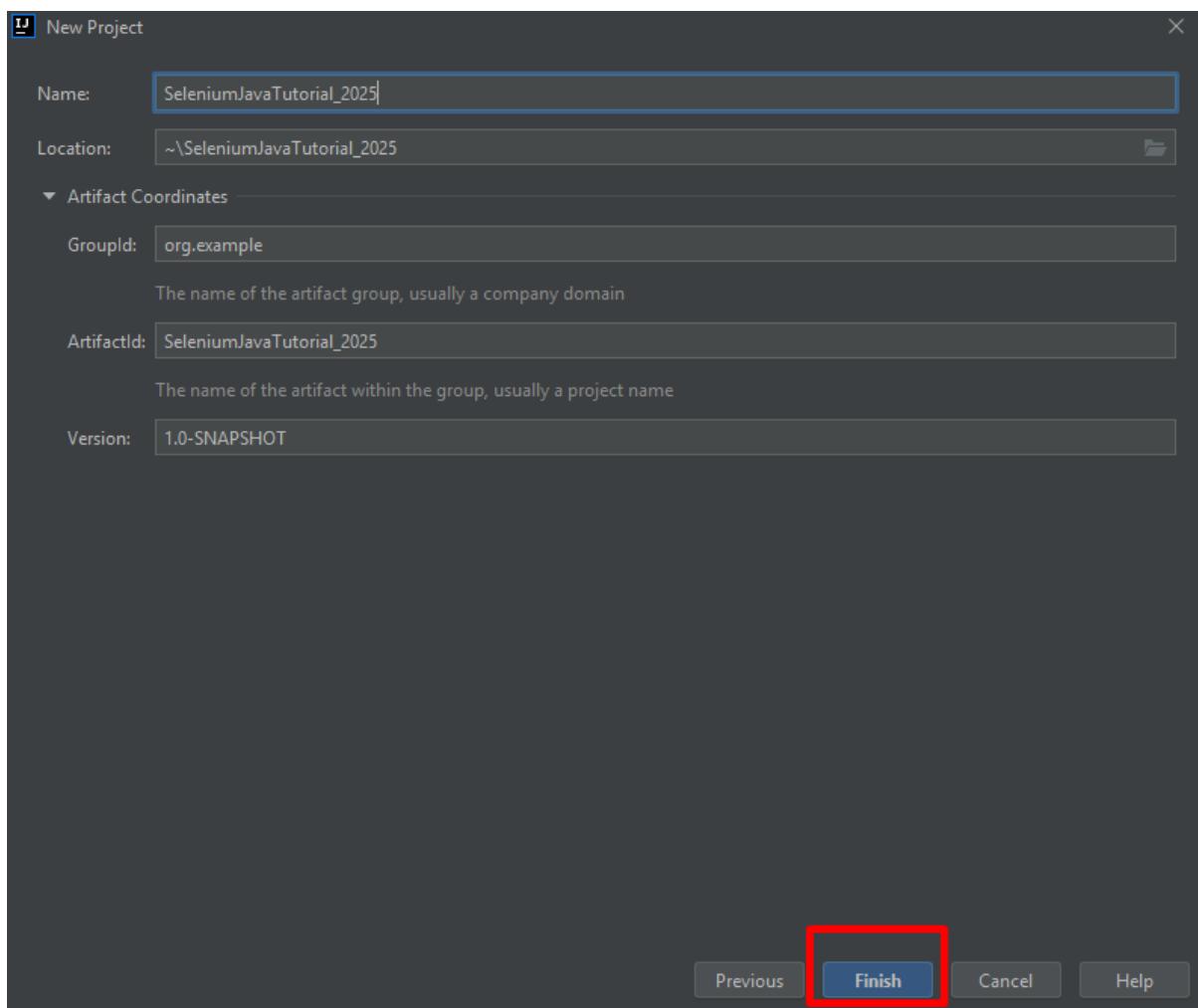
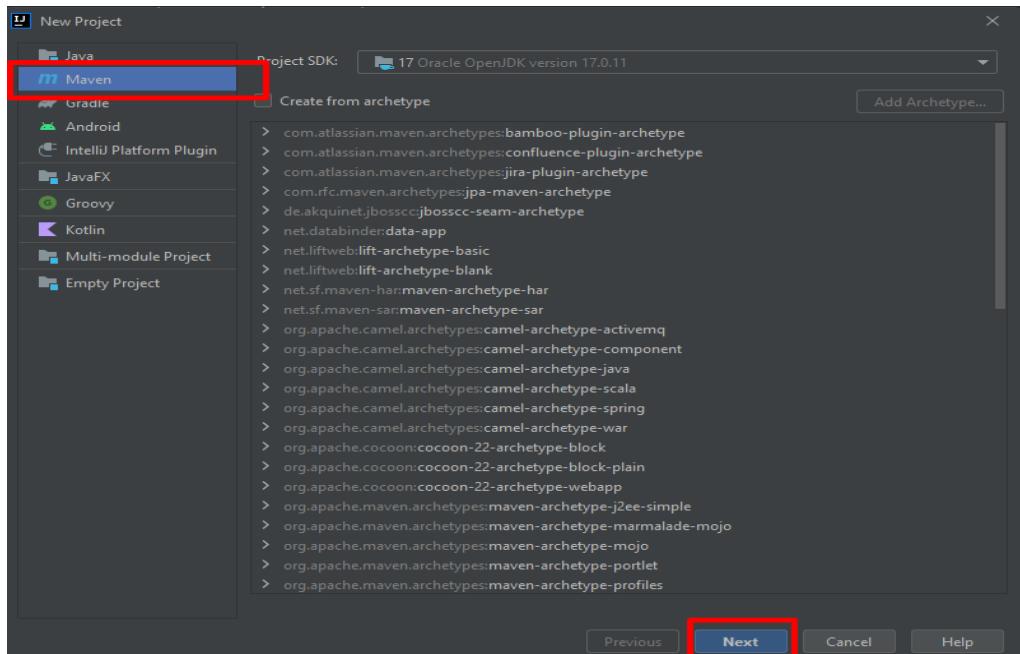
- **Create a Maven Project in IntelliJ IDEA**

- Step 1: Open IntelliJ IDEA → New Project**



**Step 2: Select Maven, Enter your project name & click on Finish button**

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## ■ Add Dependencies in pom.xml

- Step 1: Open pom.xml and add Selenium dependency from below link : -

Link - <https://mvnrepository.com/artifact/org.seleniumhq.selenium/selenium-java>

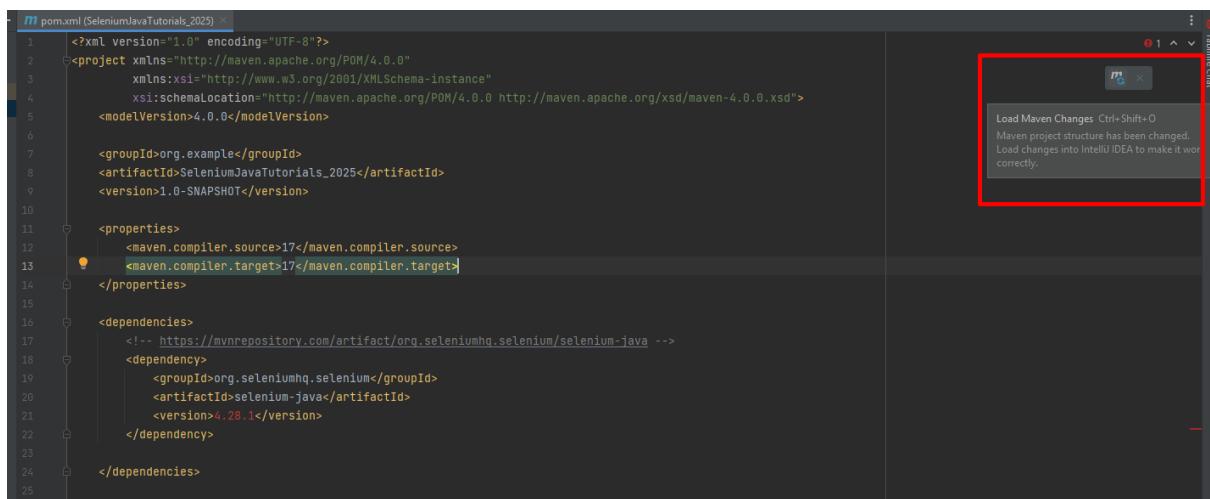
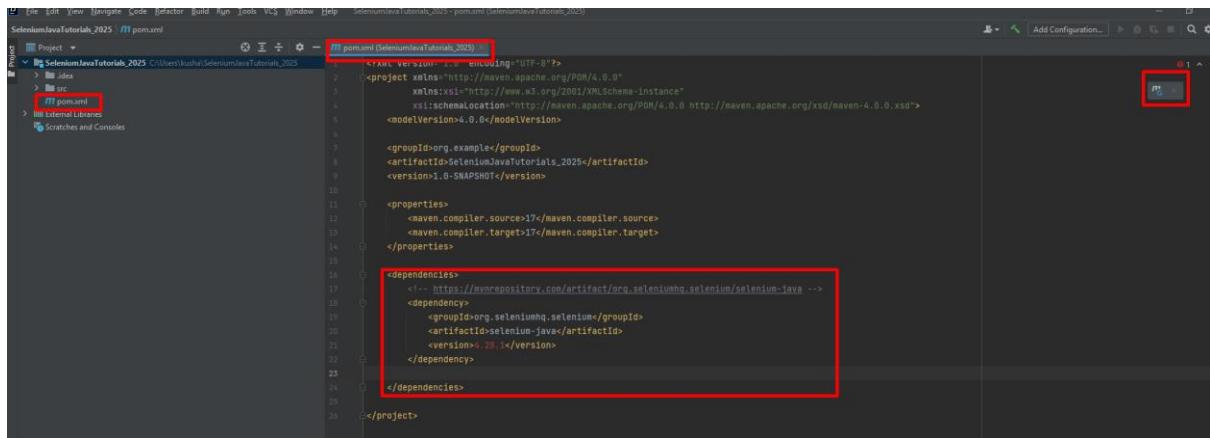
A screenshot of a Google search results page. The search query is "selenium maven dependency". The top result is a link to the "Maven Repository" at <https://mvnrepository.com>, specifically for the "org.seleniumhq.selenium" artifact. The page shows two versions of the dependency listed: "4.10.0" and "3.141.59".

A screenshot of the Maven Repository page for the "Selenium Java" artifact version 4.28.1. The page provides details about the dependency, including its license (Apache 2.0), categories (Web Testing), tags (quality, selenium, testing, web), homepage (https://selenium.dev/), and last updated date (Jan 23, 2025). It also lists files (pom, jar) and repositories (Central). The "Used By" section indicates 1,844 artifacts. At the bottom, there is a code block containing the Maven dependency XML code, which is highlighted with a red border. A checkbox for "Include comment with link to declaration" is also visible.

```
<dependencies>
    <dependency>
        <groupId>org.seleniumhq.selenium</groupId>
        <artifactId>selenium-java</artifactId>
        <version>4.28.1</version>
    </dependency>
</dependencies>
```

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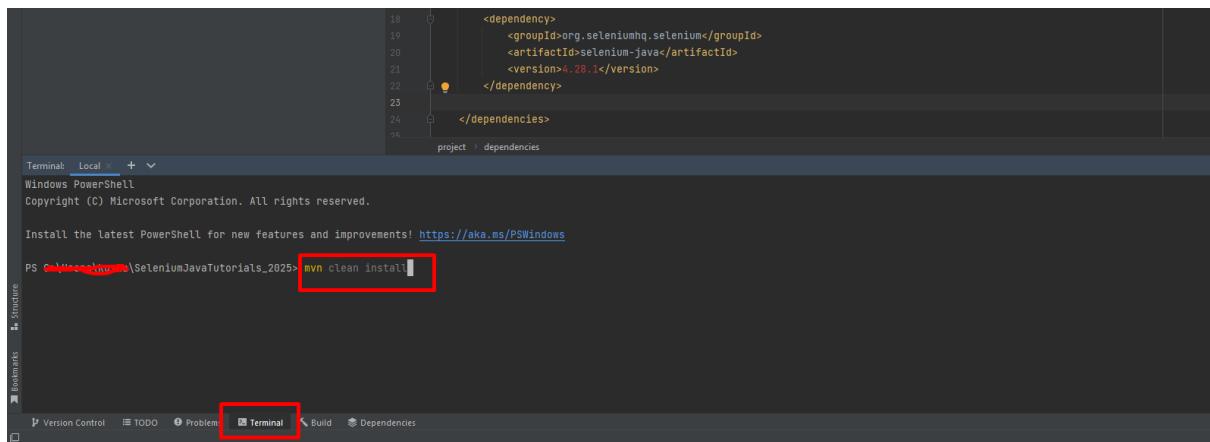
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Click on Maven Load Icon to load the changes !

## ✓ Step 2: Update project dependencies:

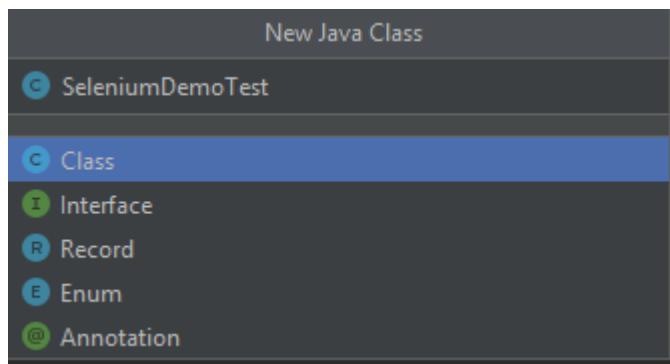
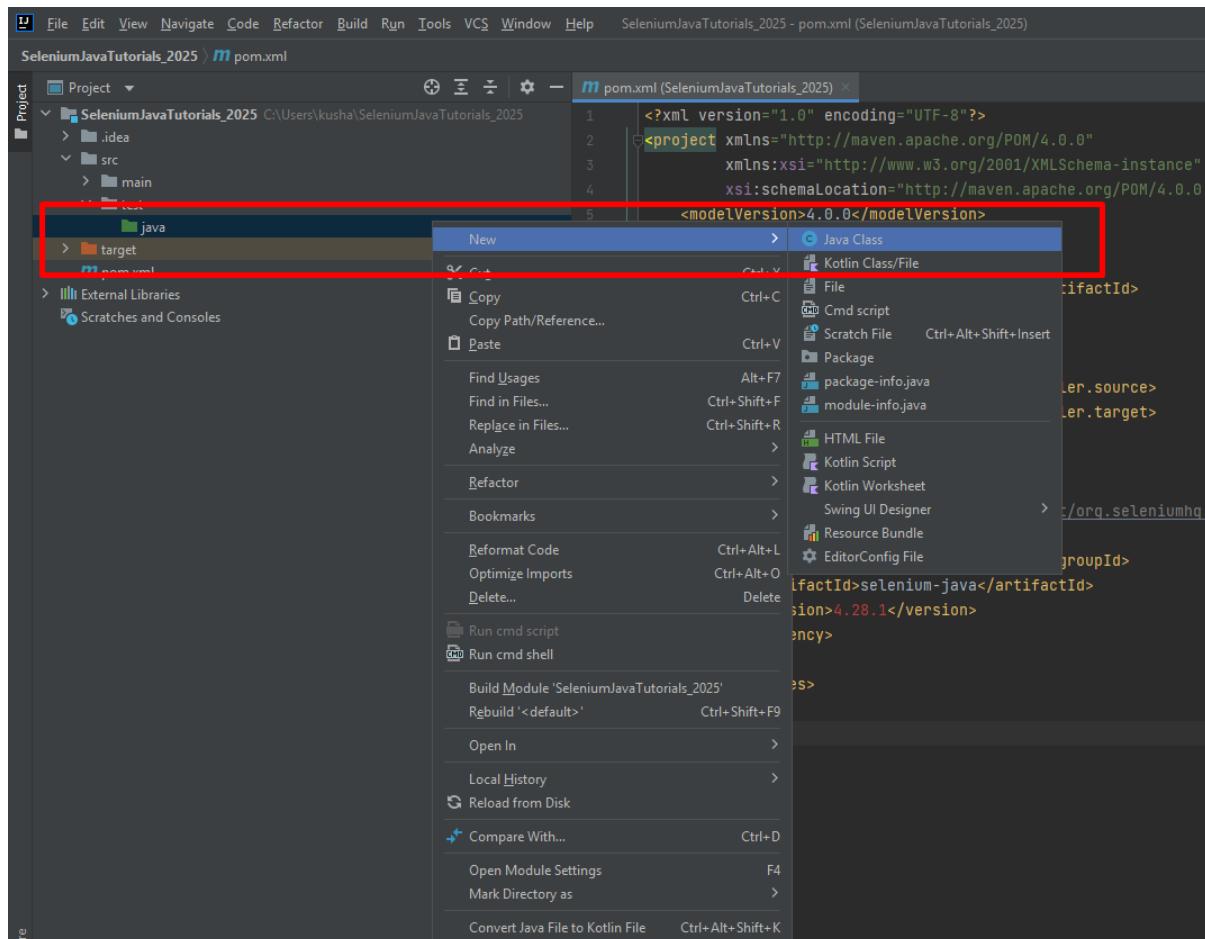
`mvn clean install`



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## ■ Create Your First Selenium Test

- ✓ Step 1: In `src/test/java`, create a new Java class - **SeleniumDemoTest.java**



- ✓ Step 2: Add the following Selenium test script:

```
import org.openqa.selenium.WebDriver;
```

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```
import org.openqa.selenium.chrome.ChromeDriver;  
  
import org.openqa.selenium.WebDriver;  
import org.openqa.selenium.chrome.ChromeDriver;  
  
public class SeleniumDemoTest {  
  
    public static void main(String[] args){  
        // Initialize WebDriver  
        WebDriver driver = new ChromeDriver();  
  
        // Maximize browser window  
        driver.manage().window().maximize();  
        // Open Google  
        driver.get("https://www.google.com");  
  
        // Print Page Title  
        System.out.println("Page Title: " + driver.getTitle());  
  
        // Close the browser  
        driver.quit();  
    }  
}
```

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The screenshot shows the IntelliJ IDEA interface with the following details:

- File Bar:** File, Edit, View, Navigate, Code, Refactor, Build, Run, Tools, VCS, Window, Help, SeleniumJavaTutorials\_2025 - SeleniumDemoTest.java
- Project Tree:** SeleniumJavaTutorials\_2025 (C:\Users\kusha\SeleniumJavaTutorials\_2025)
  - .idea
  - src
    - main
    - test
      - java
        - SeleniumDemoTest
  - target
  - pom.xml
- Code Editor:** pom.xml (SeleniumJavaTutorials\_2025) × SeleniumDemoTest.java ×

```
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;

public class SeleniumDemoTest {
    public static void main(String[] args){
        // Initialize WebDriver
        WebDriver driver = new ChromeDriver();

        // Maximize browser window
        driver.manage().window().maximize();
        // Open Google
        driver.get("https://www.google.com");

        // Print Page Title
        System.out.println("Page Title: " + driver.getTitle());

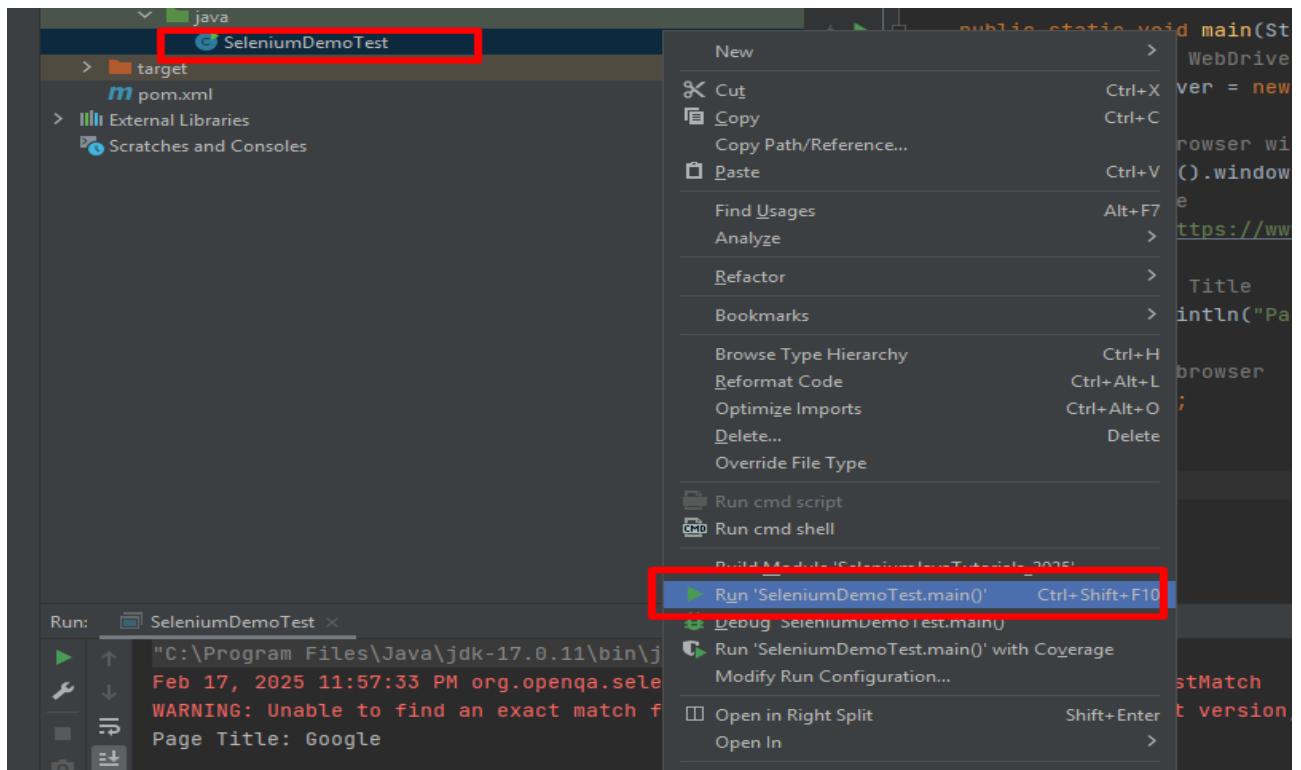
        // Close the browser
        driver.quit();
    }
}
```
- Run Tab:** Run: SeleniumDemoTest ×
  - "C:\Program Files\Java\jdk-17.0.11\bin\java.exe" ...
  - Feb 17, 2025 11:57:33 PM org.openqa.selenium.devtools.CdpVersionFinder findNearestMatch
  - WARNING: Unable to find an exact match for CDP version 133, returning the closest version; found: 132; Please update to a Sel
  - Page Title: Google
  - Process finished with exit code 0

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## 5 Run the Selenium Test

- ✓ Step 1: Right-click on `SeleniumDemoTest.java`

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✓ Step 2: The browser should launch and open **Google**.

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■ **Your Selenium Java Maven Project is Ready!**

Now you have a fully configured **Selenium Java Test Automation Setup using Java, Maven & IntelliJ IDEA!**

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