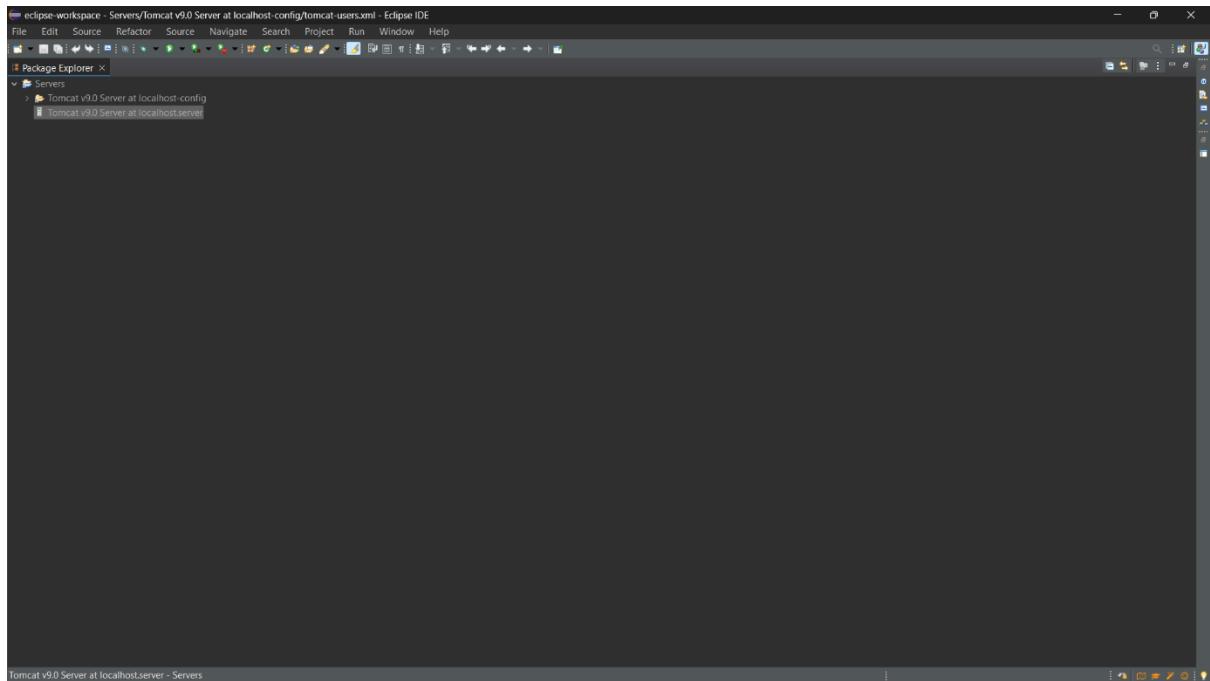
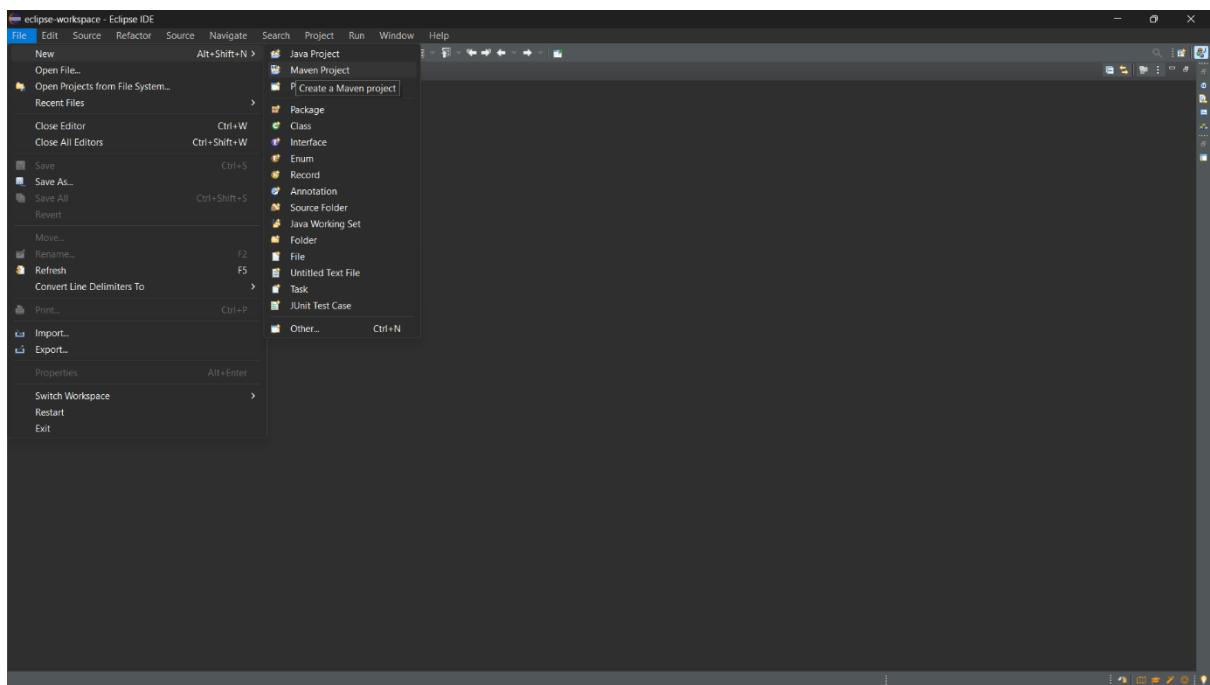


# JAVA MAVEN PROJECT:

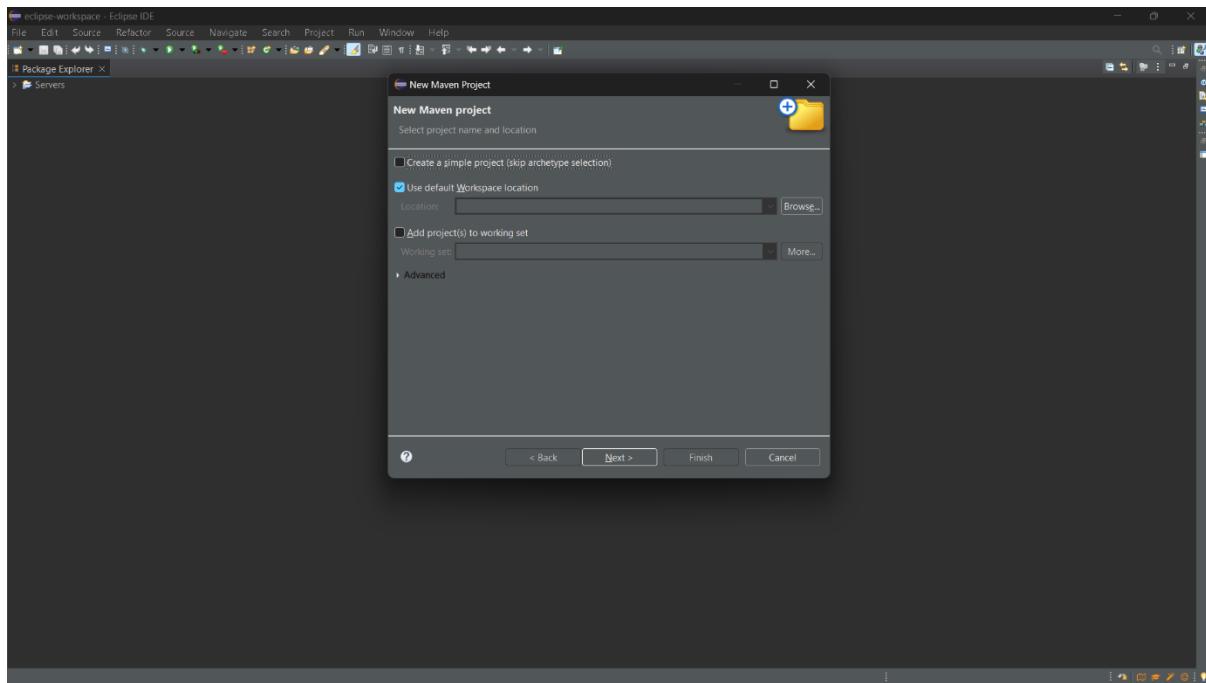
## 1. Open Eclipse



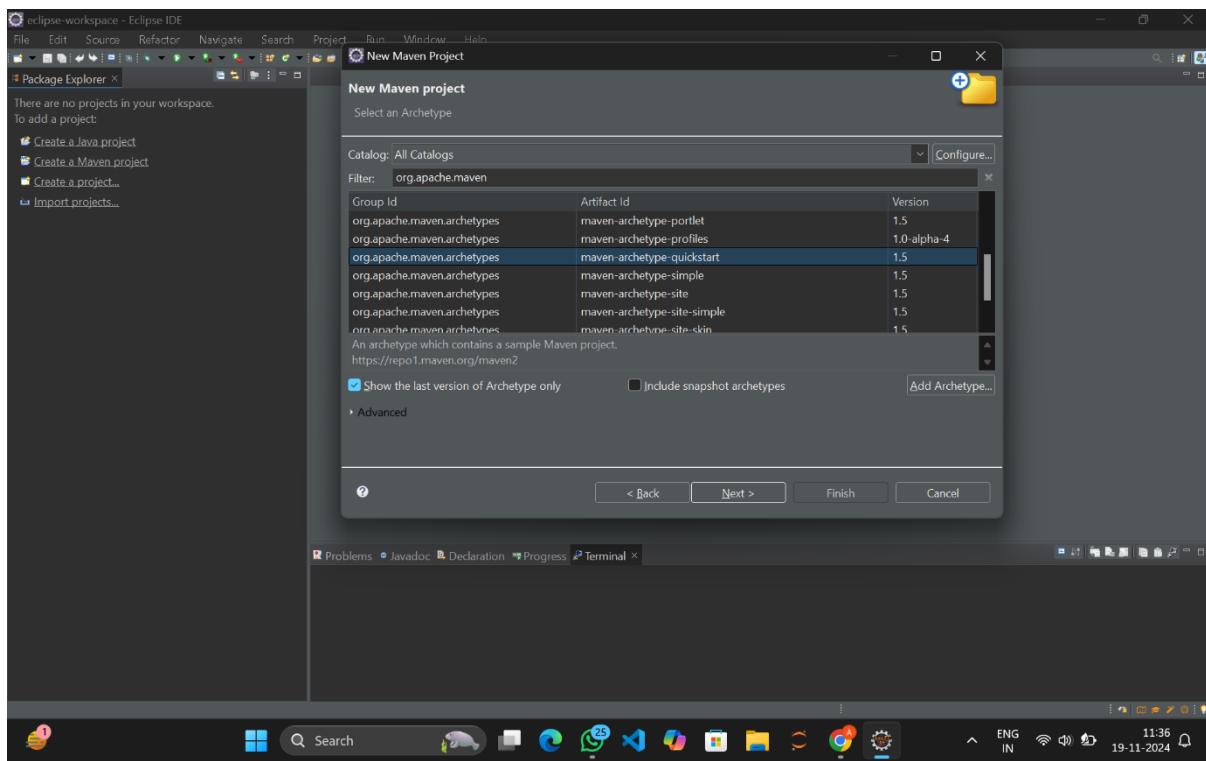
## 2. Go to File->New->Maven Project



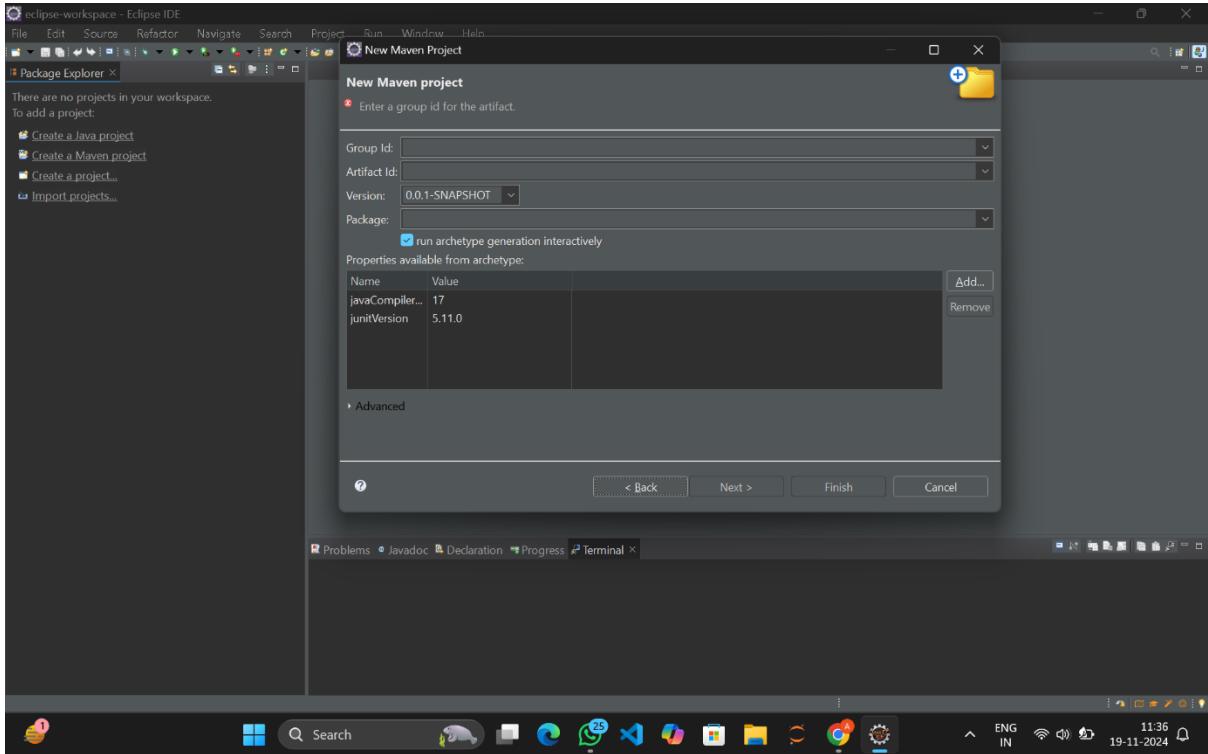
### 3. Click Next



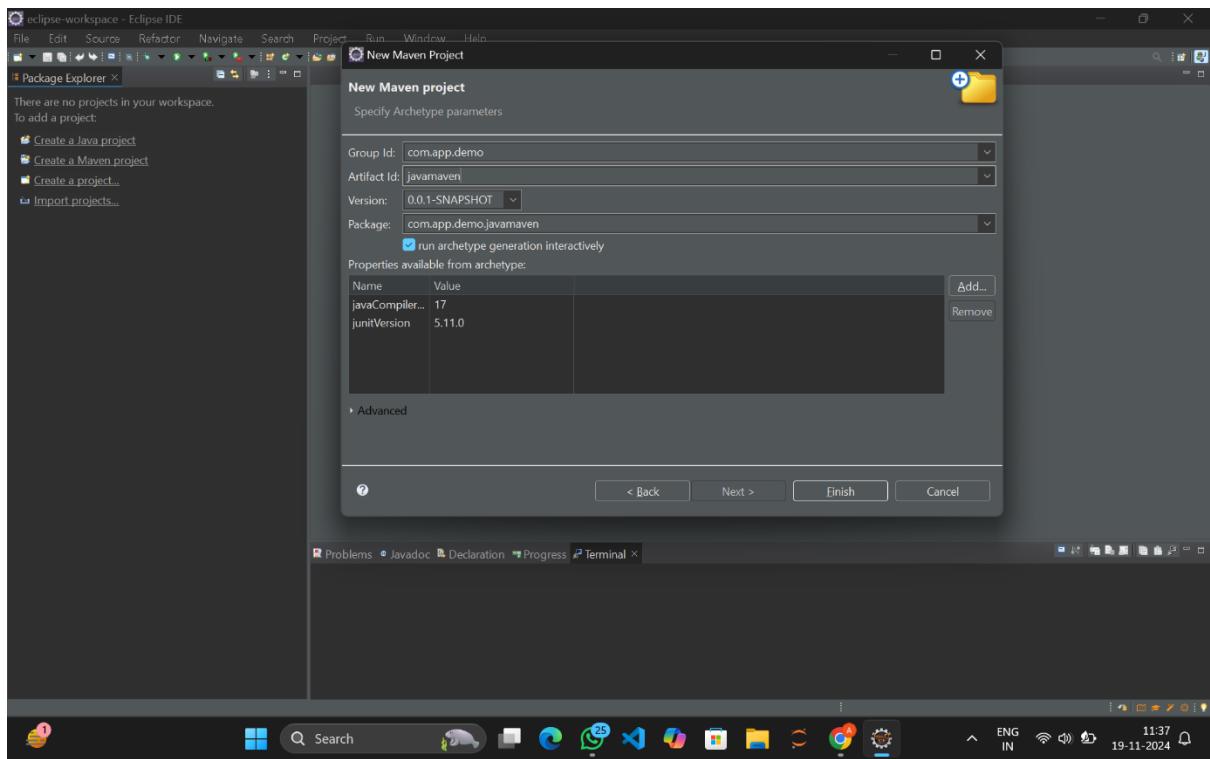
### 4. In the filter option, search for org.apache.maven And select the maven-archetype-quickstart



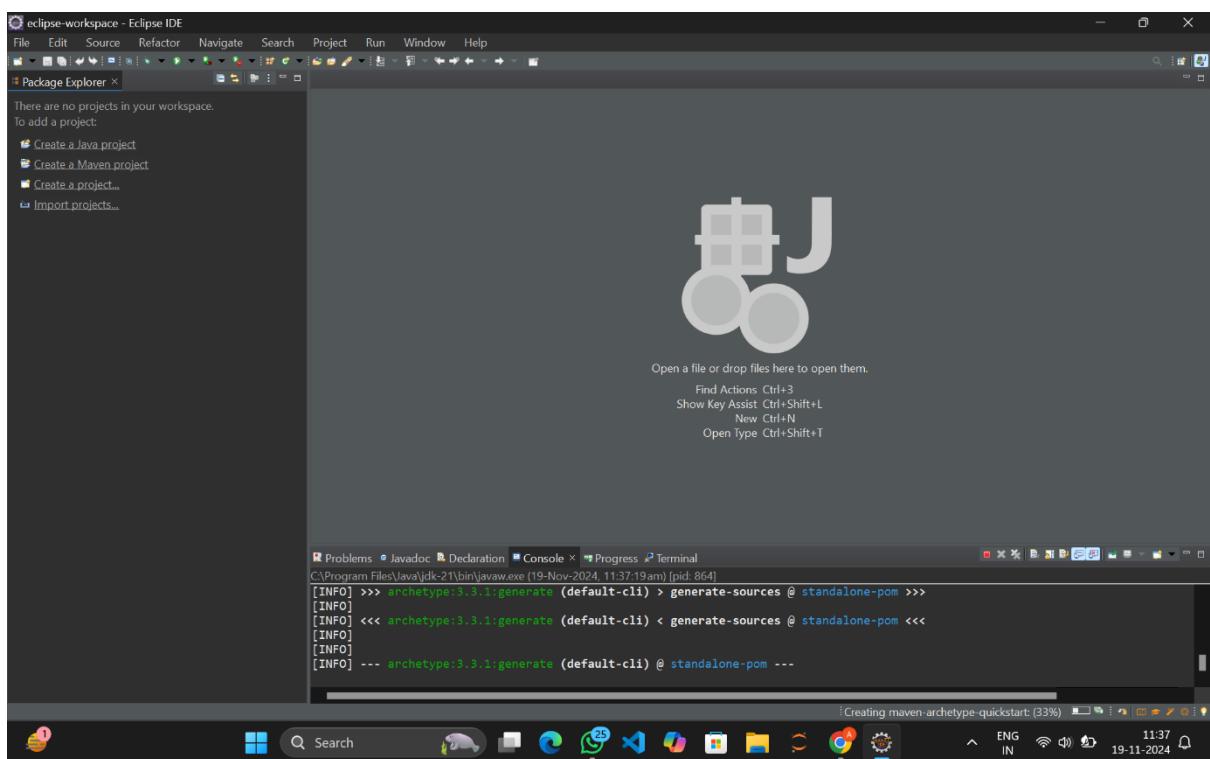
## 5. Click Next and you can see the box below



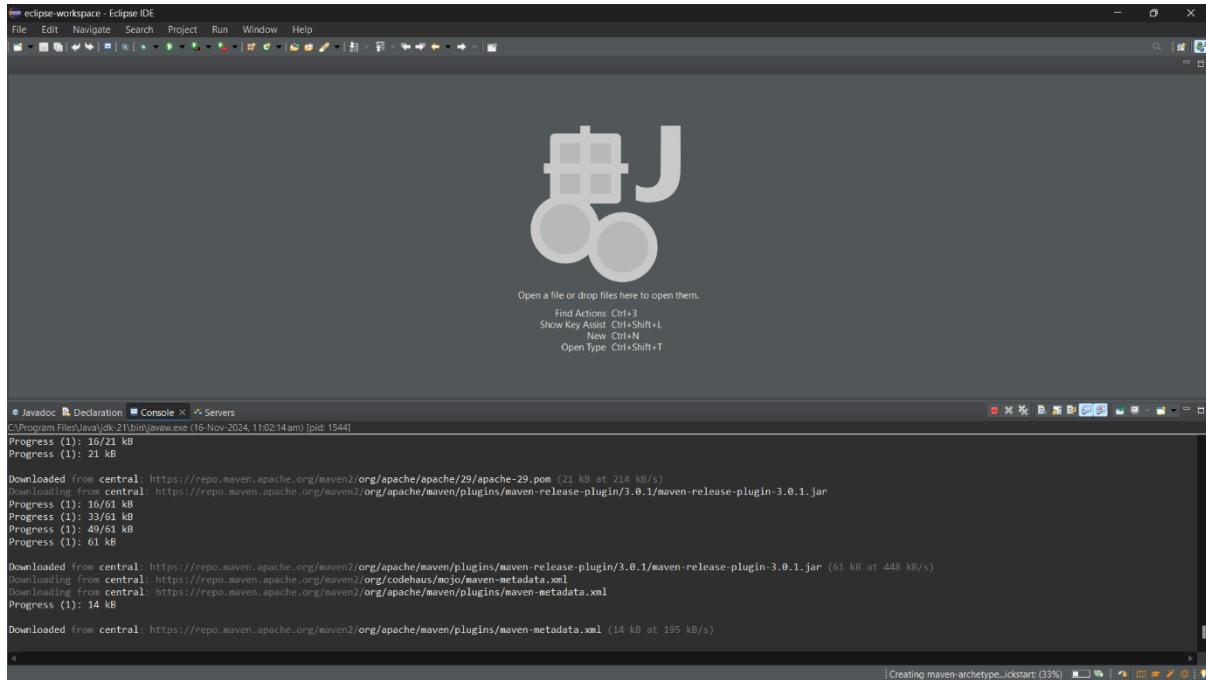
## 6. Give the Group Id as com.app.demo and give the artifact Id of your choice.



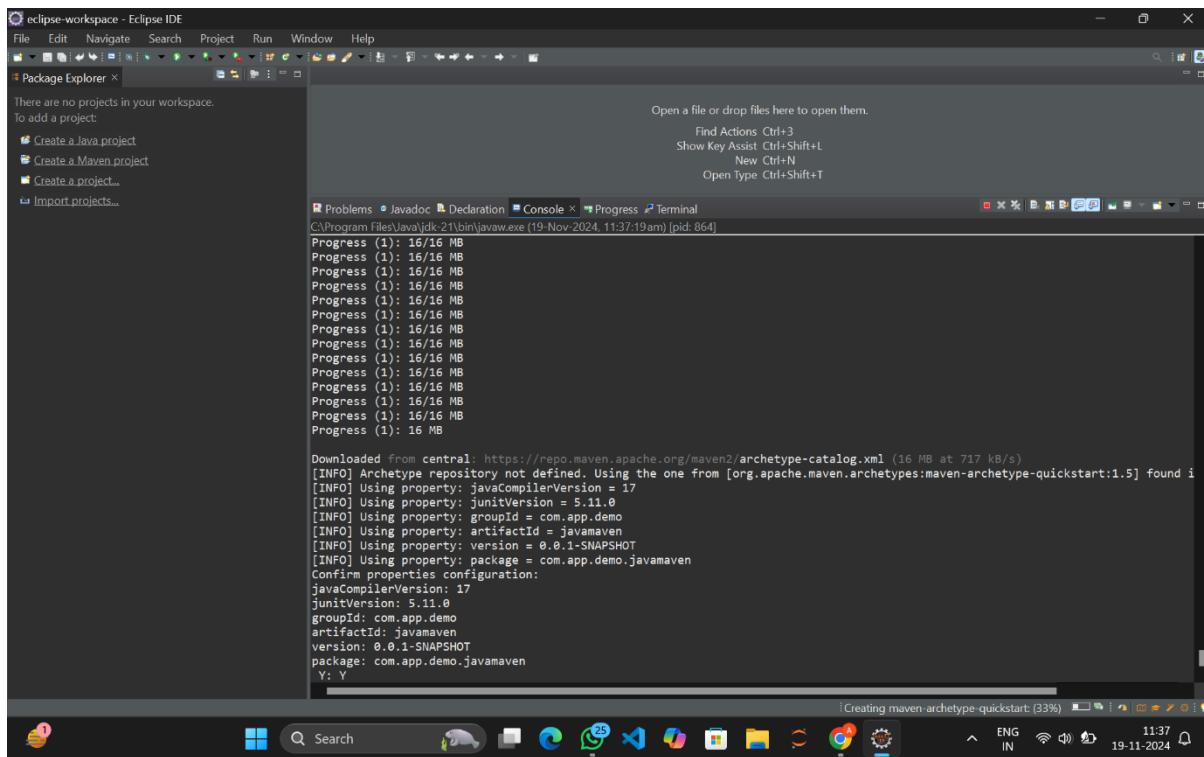
## 7. Click Enter and the downloading starts.



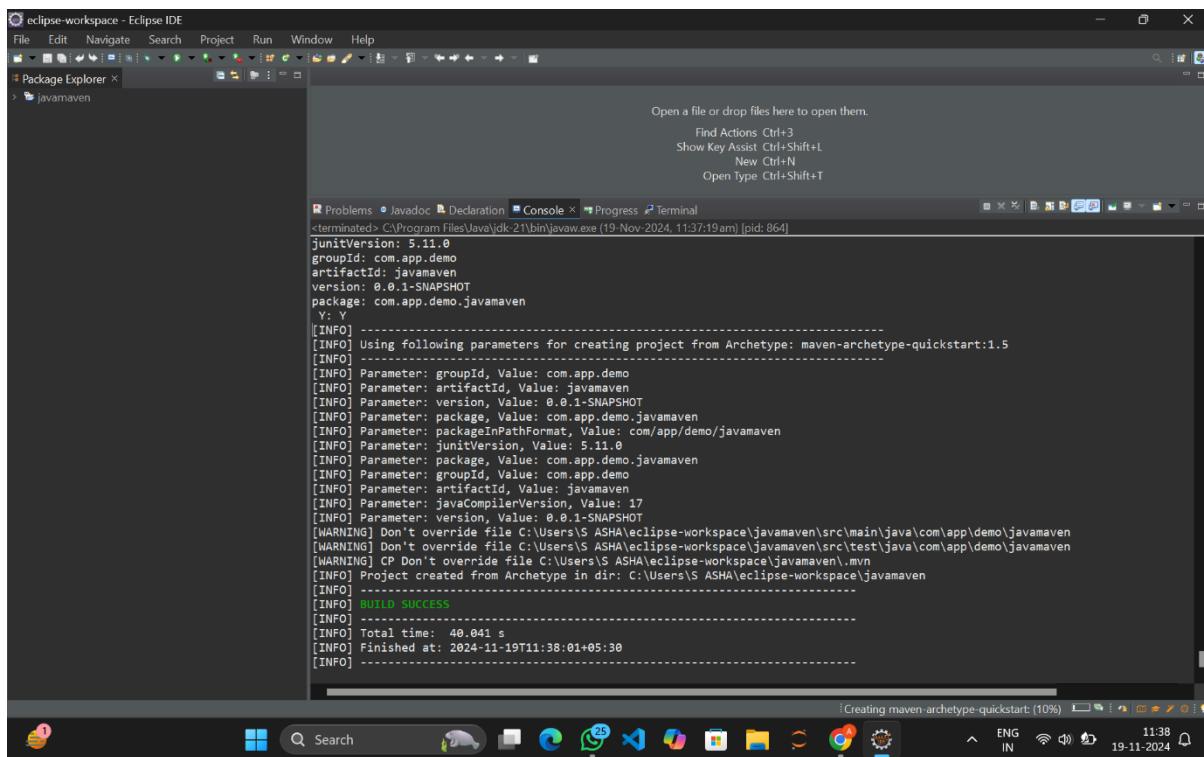
## 8. You can see in the console the progress of downloads



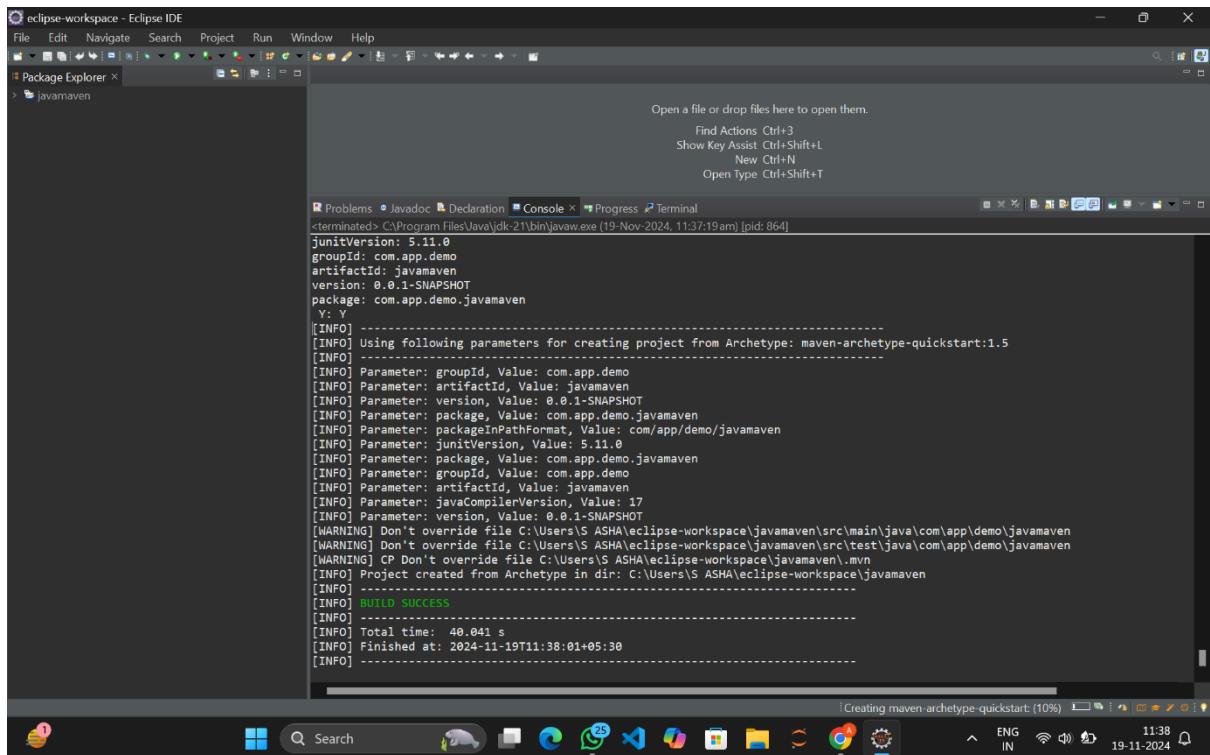
## 9. The download is complete, now type Y on console.



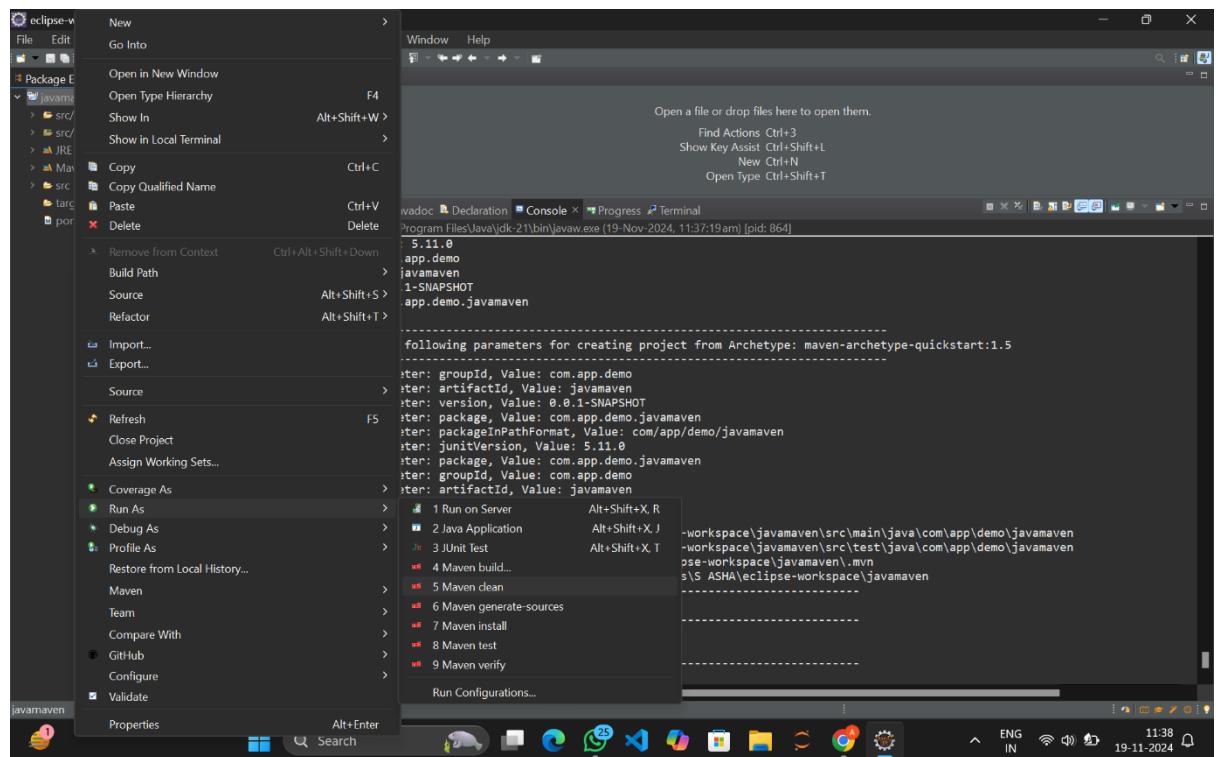
**10. The maven project build was successful.**



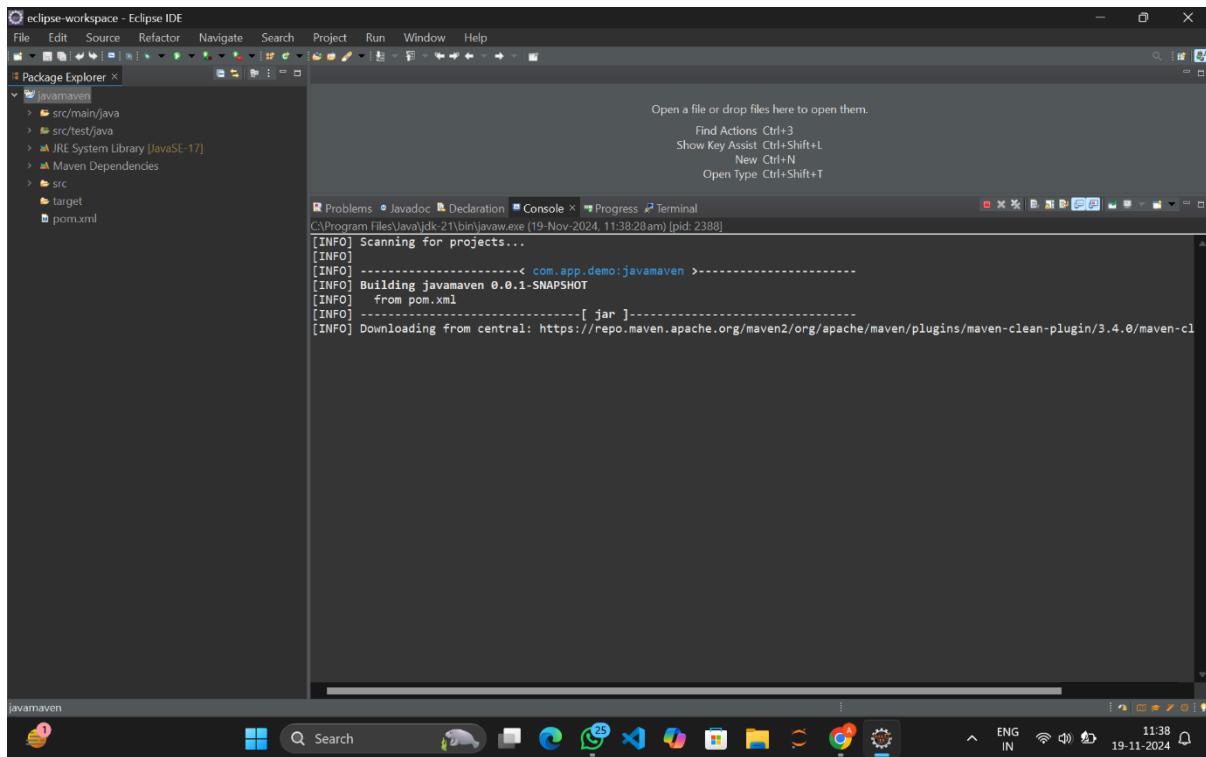
## 11. You can see the project folder towards the left



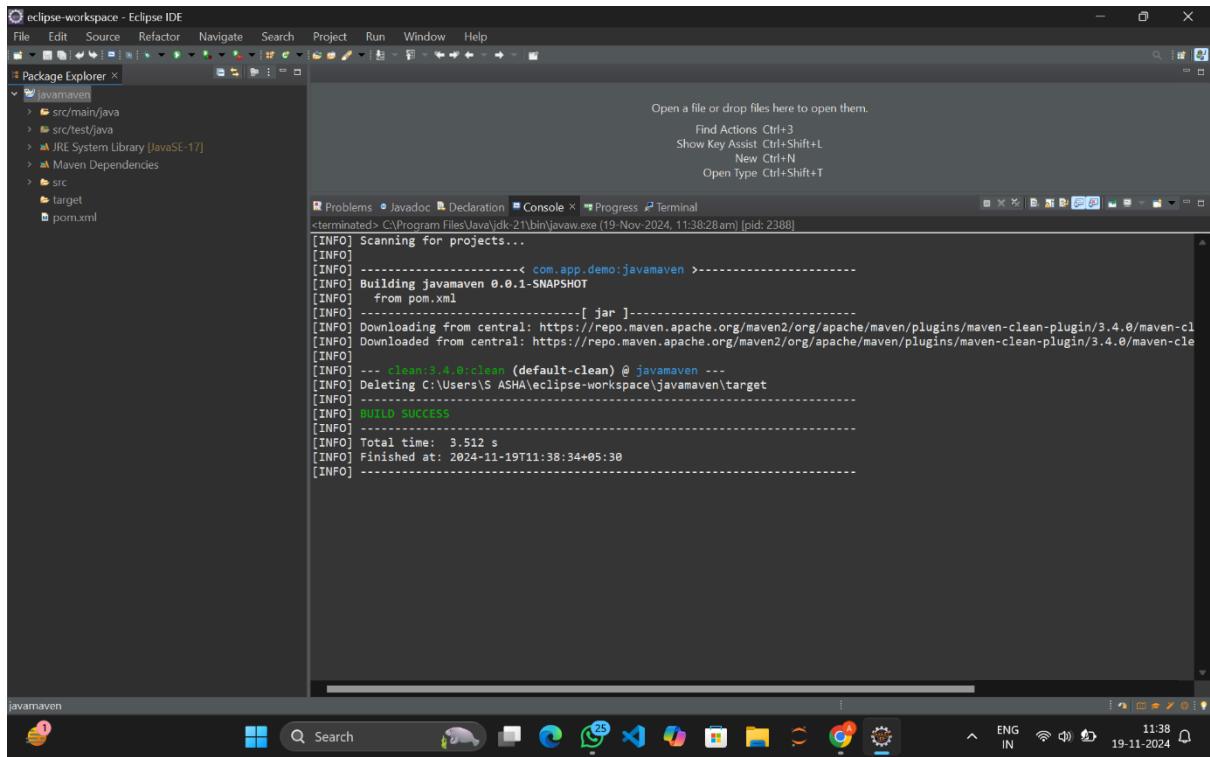
## 12. Right click on the project folder and click on Run As



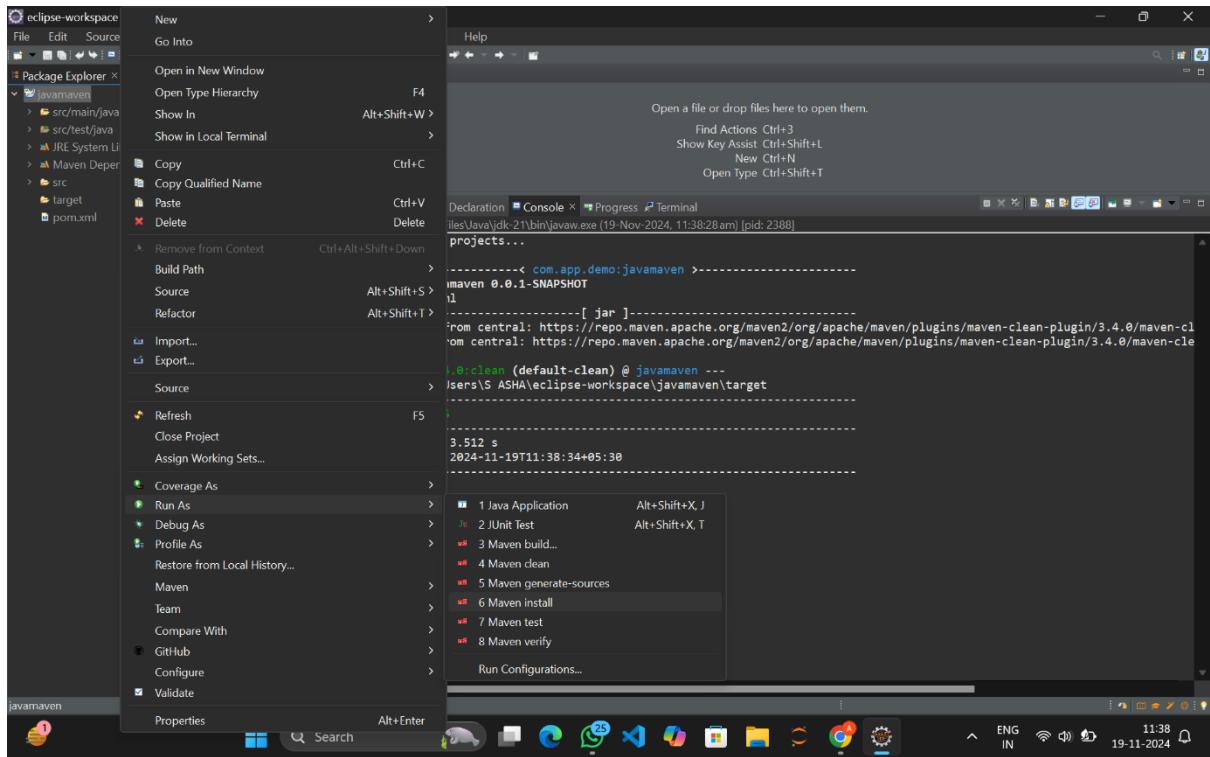
## **13. Select the Maven Clean option and the process starts**



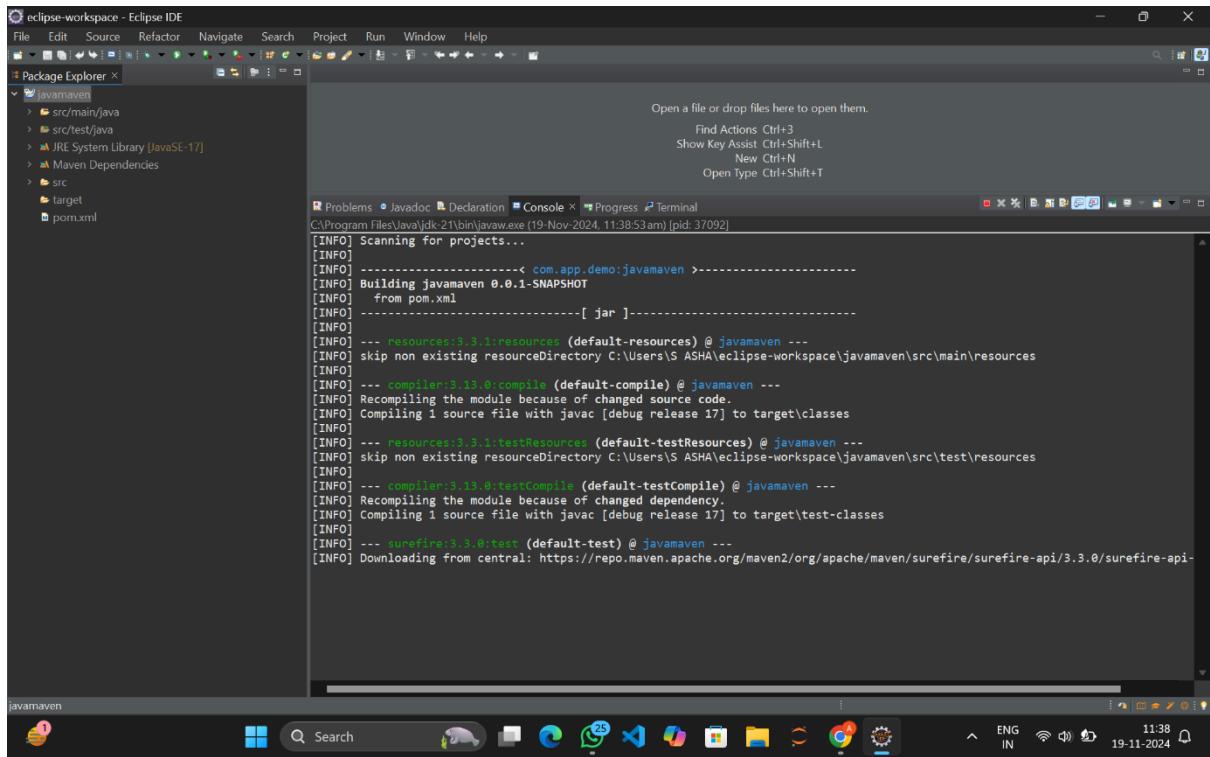
## **14. The process was successful as shown below**



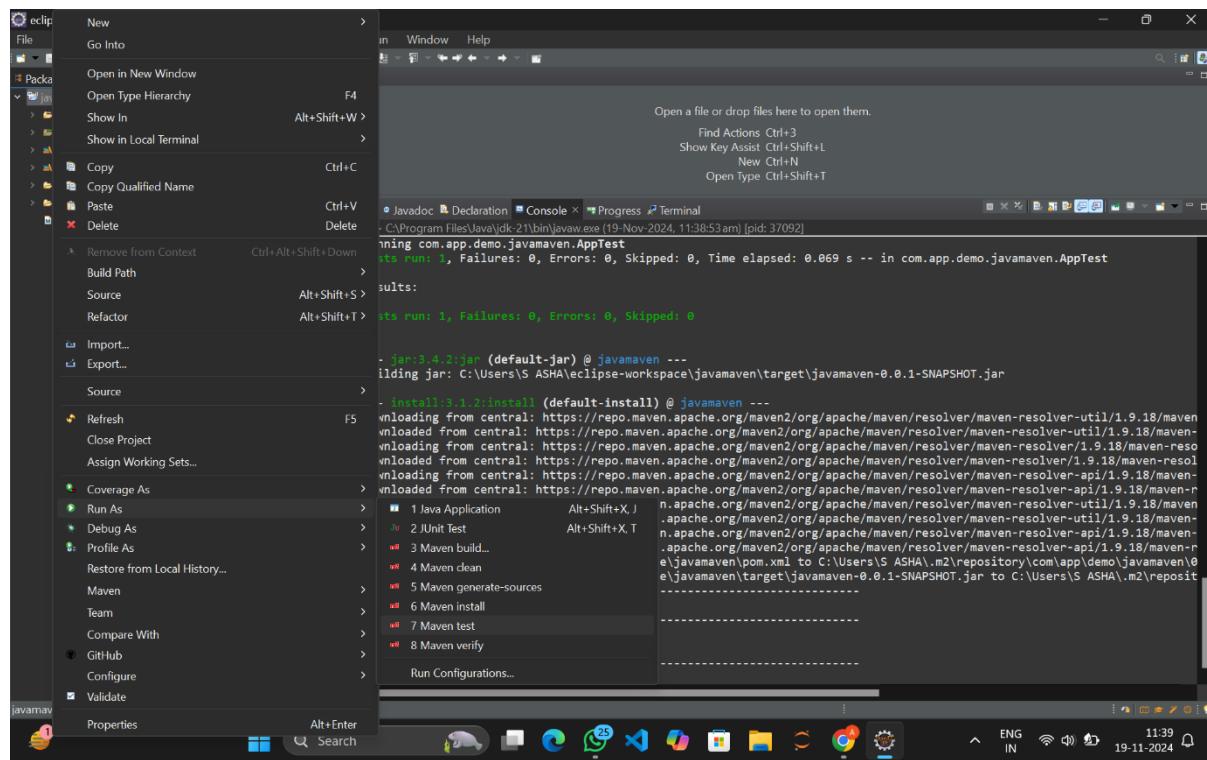
## 15. Now again right click on project folder and Run As and Maven Install



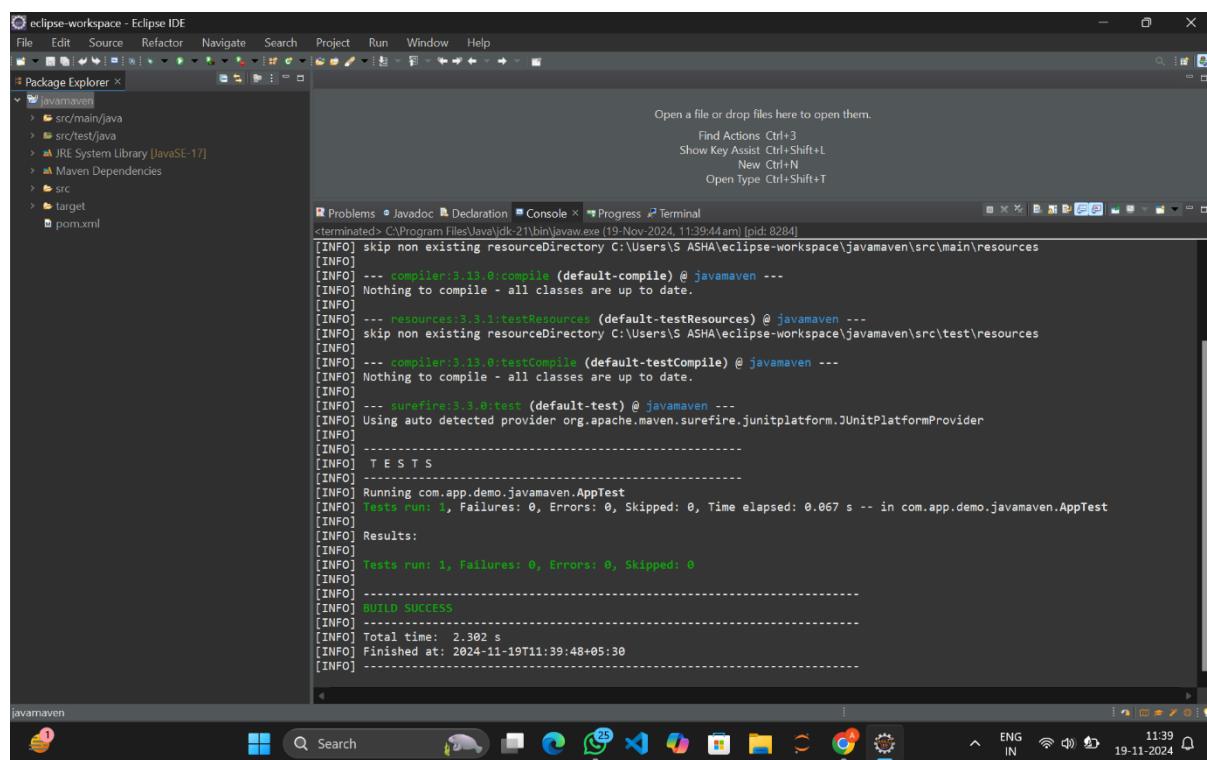
## 16. It was successful as shown



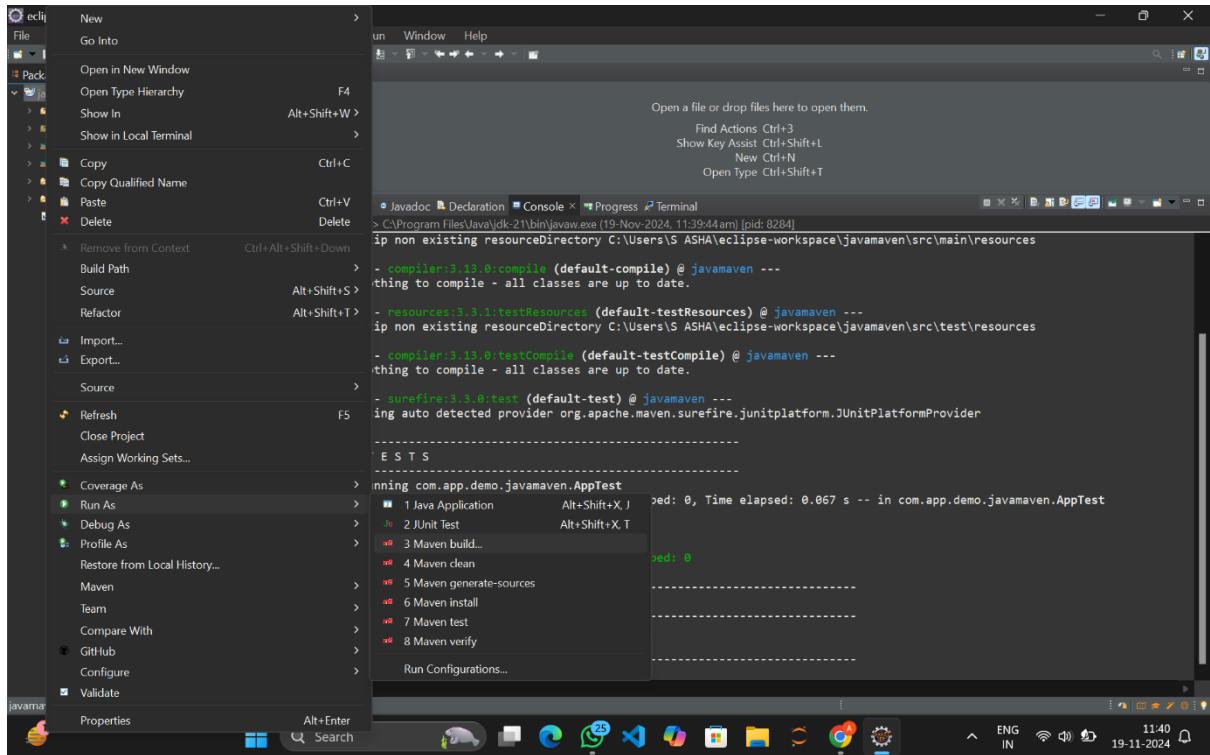
## 17. Now run as maven Test



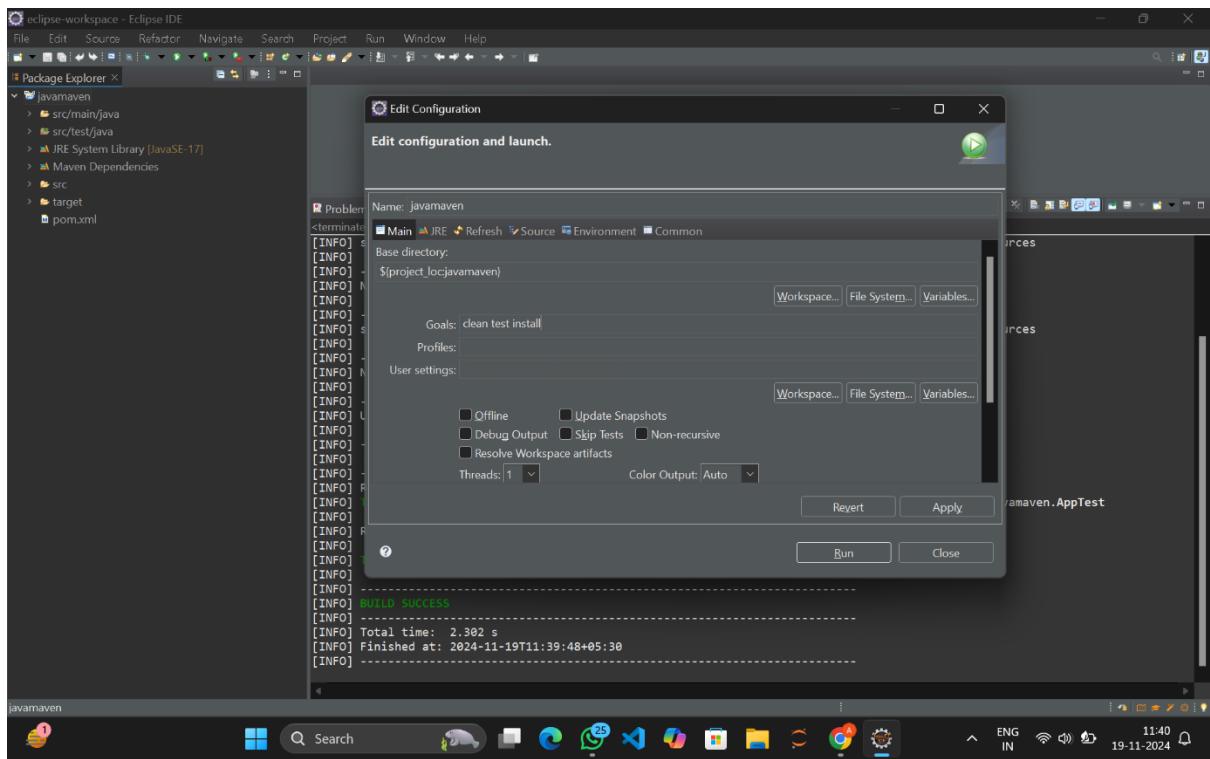
## 18. The test process was successful



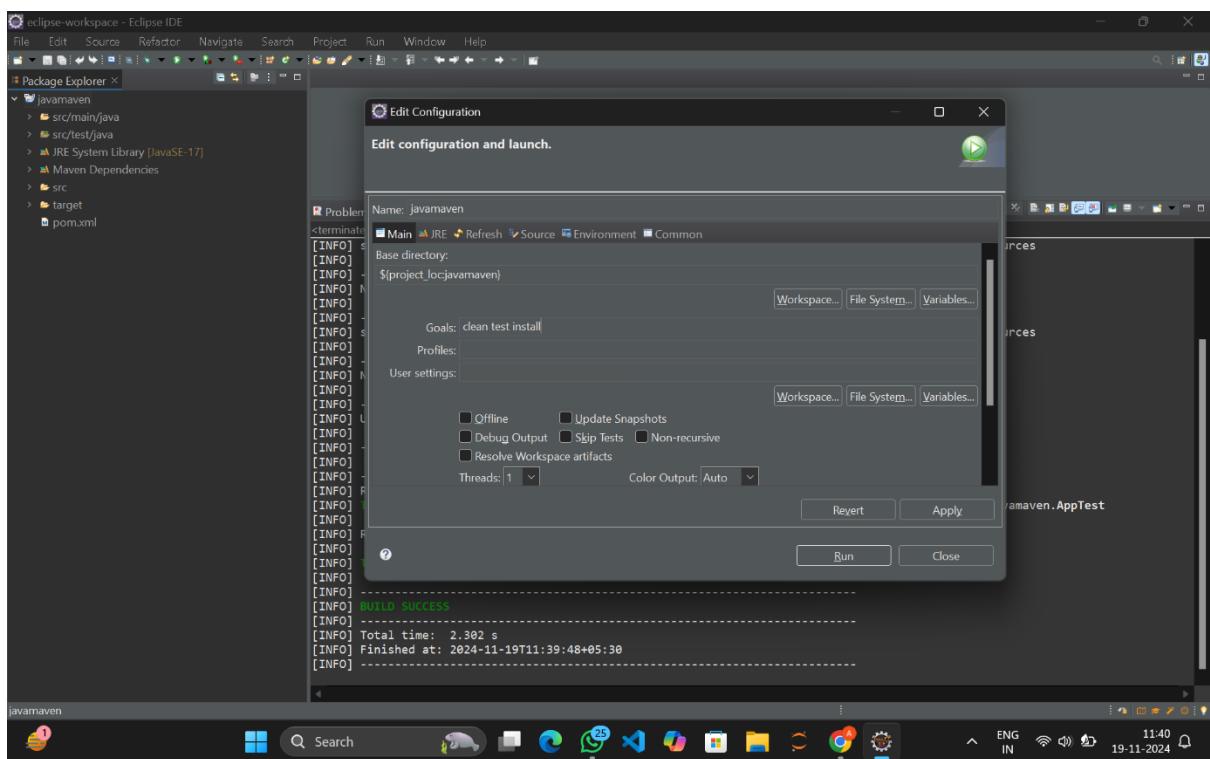
## 19. Now click on Maven build



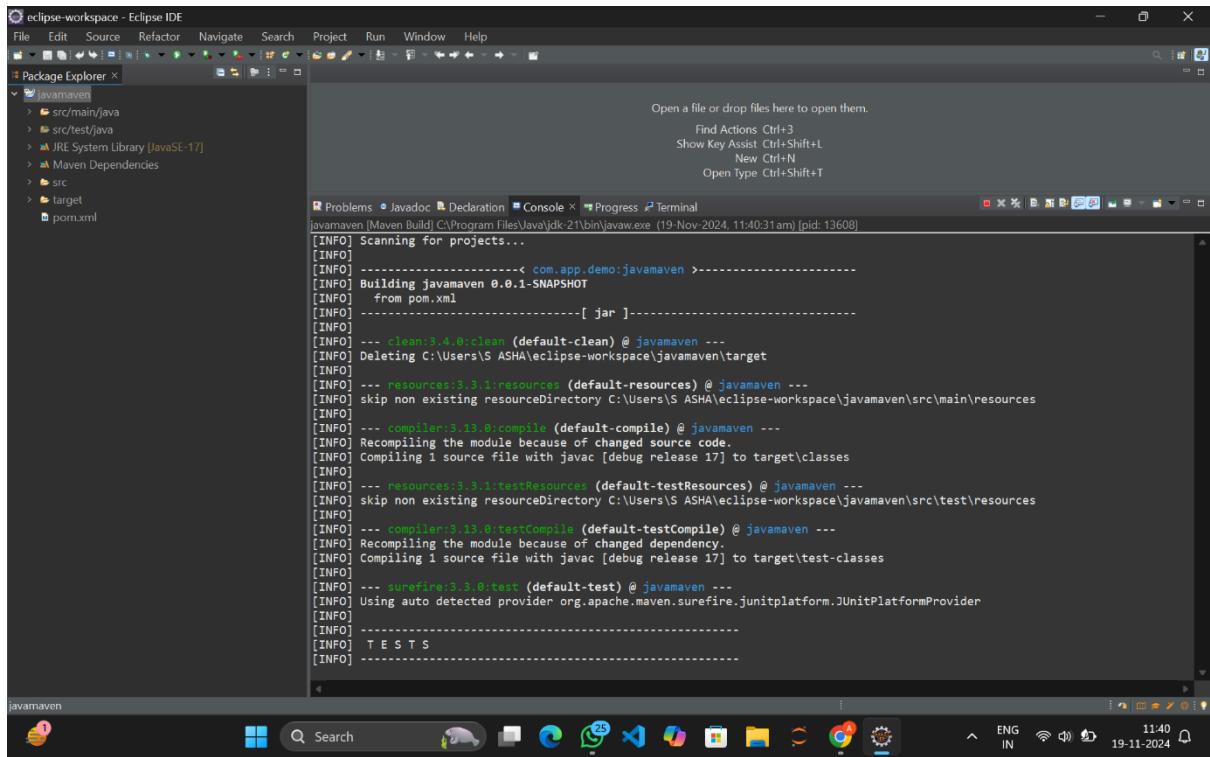
## 20. In the configurations goals type Clean test install



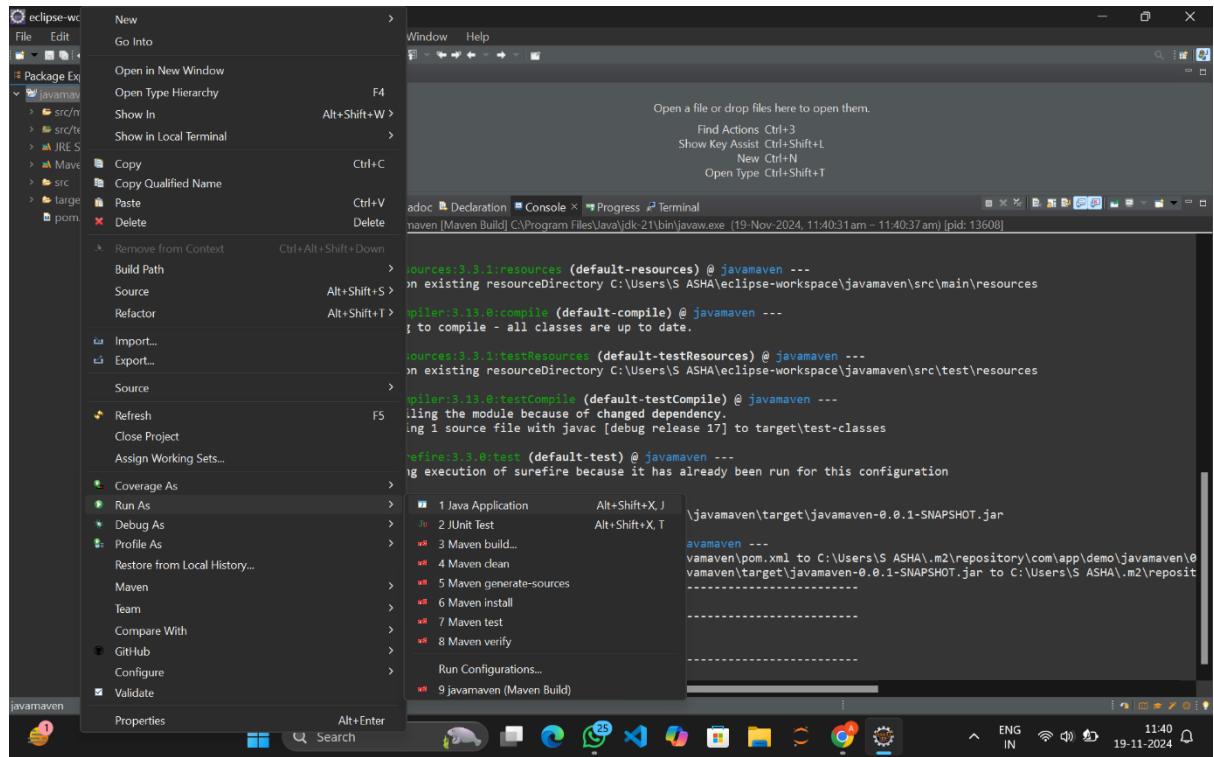
## 21. Click on run



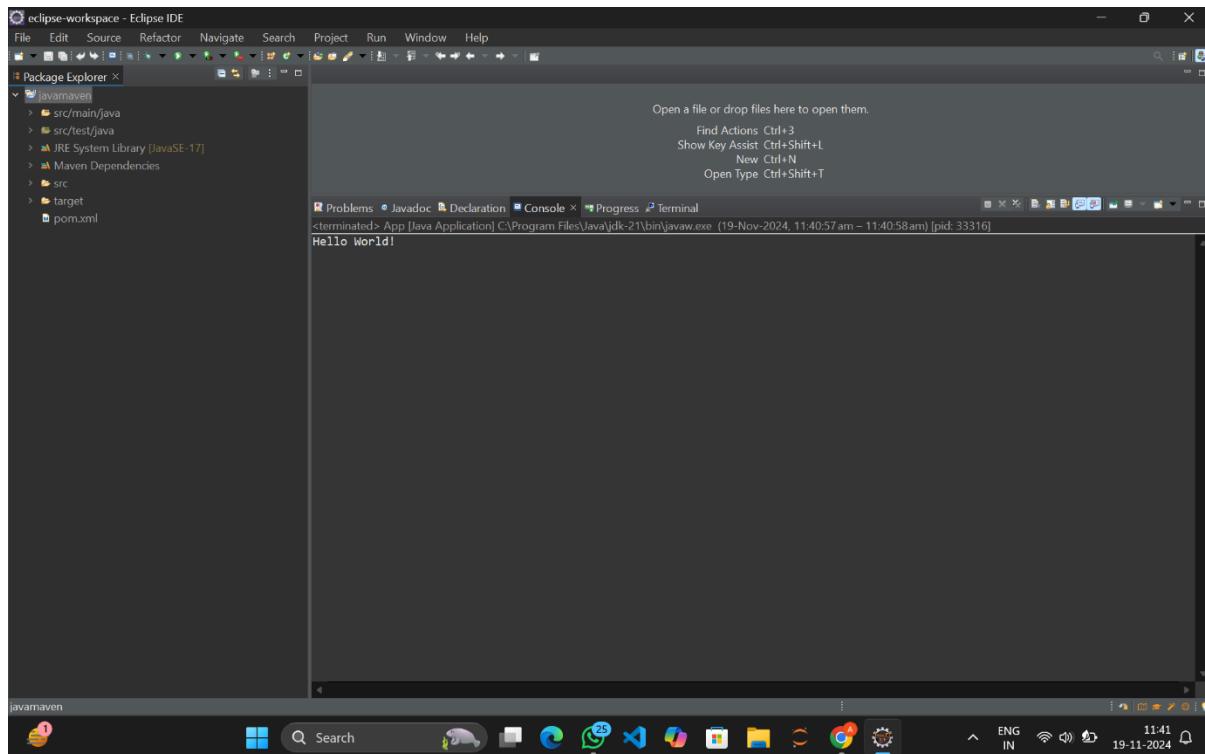
## 22. The build was successful



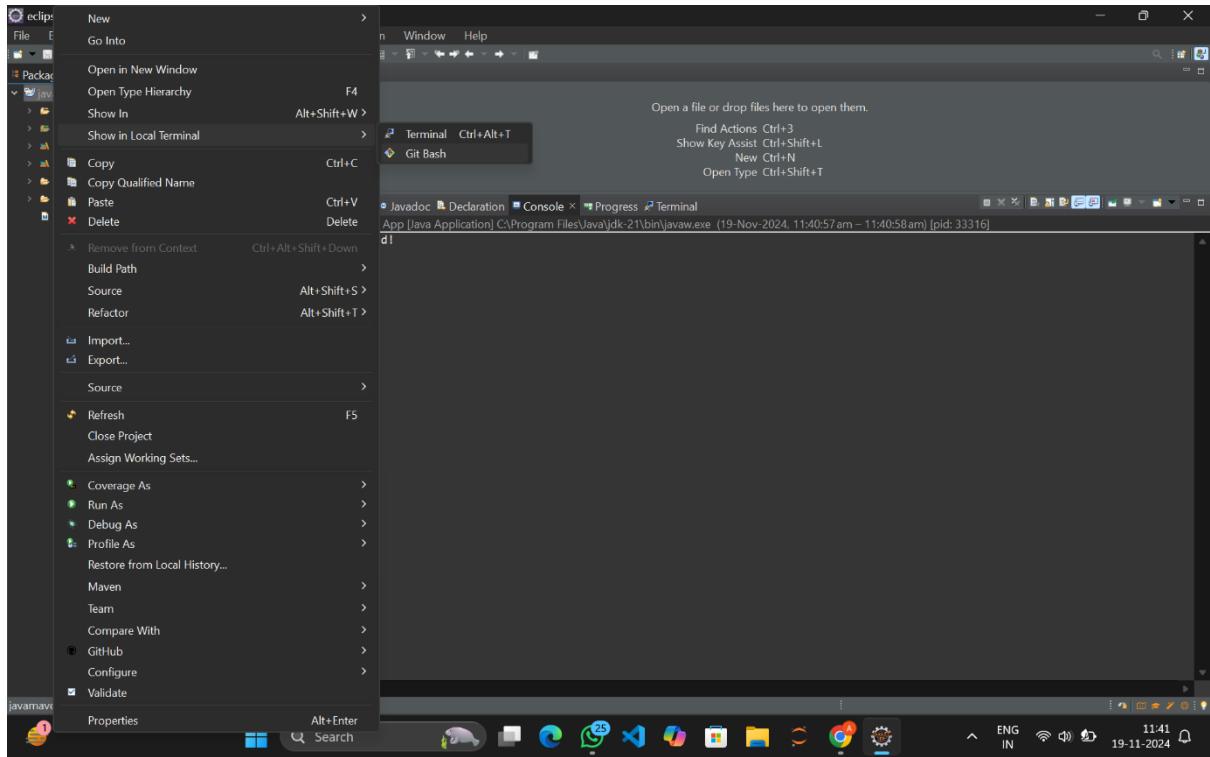
## 23. Now Run as Java application



## 24. In the console you can see the Hello World message



## 25. Right click on the project folder ,select show in local terminal and click Git bash



## 26. Git Bash terminal is opened

eclipse-workspace - Eclipse IDE

File Edit Navigate Search Project Run Window Help

Package Explorer X

javamaven

src/main/java

src/test/java

JRE System Library [JavaSE-17]

Maven Dependencies

src

target

pom.xml

Open a file or drop files here to open them.

Find Actions Ctrl+3  
Show Key Assist Ctrl+Shift+L  
New Ctrl+N  
Open Type Ctrl+Shift+T

Problems Javadoc Declaration Console Progress Terminal X

MINGW64/c/Users/S ASHA/eclipse-workspace/javamaven (master)

```
S ASHA@DESKTOP-VOCOBUL MINGW64 ~/eclipse-workspace/javamaven (master)
$ git init
Initialized empty Git repository in C:/Users/S ASHA/eclipse-workspace/javamaven/.git/
S ASHA@DESKTOP-VOCOBUL MINGW64 ~/eclipse-workspace/javamaven (master)
$ git add .
warning: in the working copy of 'target/maven-status/maven-compiler-plugin/compile/default-compile/createdFiles.lst', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'target/maven-status/maven-compiler-plugin/testCompile/default-testCompile/createdFiles.lst', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'target/surefire-reports/TEST-com.app.demo.javamaven.AppTest.xml', LF will be replaced by CRLF the next time Git touches it

S ASHA@DESKTOP-VOCOBUL MINGW64 ~/eclipse-workspace/javamaven (master)
$ git commit -m "java maven"
[master (root-commit) b9d291d] java maven
 20 files changed, 2/2 insertions(+)
 create mode 100644 .classpath
 create mode 100644 .mvn/jvm.config
 create mode 100644 .mvn/maven.config
 create mode 100644 .project
 create mode 100644 .settings/org.eclipse.core.resourcesprefs
 create mode 100644 .settings/org.eclipse.jdt.core.preferences
 create mode 100644 .settings/org.eclipse.m2e.core.preferences
 create mode 100644 pom.xml
 create mode 100644 src/main/java/com/app/demo/javamaven/App.java
 create mode 100644 src/test/java/com/app/demo/javamaven/AppTest.java
 create mode 100644 target/classes/com/app/demo/javamaven/App.class
 create mode 100644 target/javamaven-0.0.1-SNAPSHOT.jar
 create mode 100644 target/maven-archiver/pom.properties
```

Connected - Encoding: UTF-8

11:42 19-11-2024

## 27. Initialize Git by using git init command

eclipse-workspace - Eclipse IDE

File Edit Navigate Search Project Run Window Help

Package Explorer X

javamaven

src/main/java

src/test/java

JRE System Library [JavaSE-17]

Maven Dependencies

src

target

pom.xml

Open a file or drop files here to open them.

Find Actions Ctrl+3  
Show Key Assist Ctrl+Shift+L  
New Ctrl+N  
Open Type Ctrl+Shift+T

Problems Javadoc Declaration Console Progress Terminal X

MINGW64/c/Users/S ASHA/eclipse-workspace/javamaven (master)

```
S ASHA@DESKTOP-VOCOBUL MINGW64 ~/eclipse-workspace/javamaven (master)
$ git init
Initialized empty Git repository in C:/Users/S ASHA/eclipse-workspace/javamaven/.git/
S ASHA@DESKTOP-VOCOBUL MINGW64 ~/eclipse-workspace/javamaven (master)
$ git add .
warning: in the working copy of 'target/maven-status/maven-compiler-plugin/compile/default-compile/createdFiles.lst', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'target/maven-status/maven-compiler-plugin/testCompile/default-testCompile/createdFiles.lst', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'target/surefire-reports/TEST-com.app.demo.javamaven.AppTest.xml', LF will be replaced by CRLF the next time Git touches it

S ASHA@DESKTOP-VOCOBUL MINGW64 ~/eclipse-workspace/javamaven (master)
$ git commit -m "java maven"
[master (root-commit) b9d291d] java maven
 20 files changed, 2/2 insertions(+)
 create mode 100644 .classpath
 create mode 100644 .mvn/jvm.config
 create mode 100644 .mvn/maven.config
 create mode 100644 .project
 create mode 100644 .settings/org.eclipse.core.resourcesprefs
 create mode 100644 .settings/org.eclipse.jdt.core.preferences
 create mode 100644 .settings/org.eclipse.m2e.core.preferences
 create mode 100644 pom.xml
 create mode 100644 src/main/java/com/app/demo/javamaven/App.java
 create mode 100644 src/test/java/com/app/demo/javamaven/AppTest.java
 create mode 100644 target/classes/com/app/demo/javamaven/App.class
 create mode 100644 target/javamaven-0.0.1-SNAPSHOT.jar
 create mode 100644 target/maven-archiver/pom.properties
```

Connected - Encoding: UTF-8

11:42 19-11-2024

## 28. Add the files using git add .

The screenshot shows the Eclipse IDE interface with the title "eclipse-workspace - Eclipse IDE". In the center, there is a terminal window displaying a git commit command:

```
$ git commit -m "java maven"
[master (root-commit) b9d291d] java maven
 20 files changed, 272 insertions(+)
 create mode 100644 .classpath
 create mode 100644 .mvn/jvm.config
 create mode 100644 .mvn/maven.config
 create mode 100644 .project
 create mode 100644 .settings/org.eclipse.core.resources_prefs
 create mode 100644 .settings/org.eclipse.jdt.core_prefs
 create mode 100644 .settings/org.eclipse.m2e.core_prefs
 create mode 100644 pom.xml
 create mode 100644 src/main/java/com/app/demo/javamaven/App.java
 create mode 100644 src/test/java/com/app/demo/javamaven/AppTest.java
 create mode 100644 target/classes/com/app/demo/javamaven/App.class
 create mode 100644 target/javamaven-0.0.1-SNAPSHOT.jar
 create mode 100644 target/maven-archiver/pom.properties
 create mode 100644 target/maven-status/maven-compiler-plugin/compile/default-compile/createdFiles.lst
 create mode 100644 target/maven-status/maven-compiler-plugin/compile/default-compile/inputFiles.lst
 create mode 100644 target/maven-status/maven-compiler-plugin/testCompile/default-testCompile/createdFiles.lst
 create mode 100644 target/maven-status/maven-compiler-plugin/testCompile/default-testCompile/inputFiles.lst
 create mode 100644 target/surefire-reports/TEST-com.app.demo.javamaven.AppTest.xml
 create mode 100644 target/surefire-reports/com.app.demo.javamaven.AppTest.txt
 create mode 100644 target/test-classes/com/app/demo/javamaven/AppTest.class
```

The terminal window also shows the user's prompt: \$ ASHA@DESKTOP-VOC00UL MINGW64 ~/eclipse-workspace/javamaven (master)

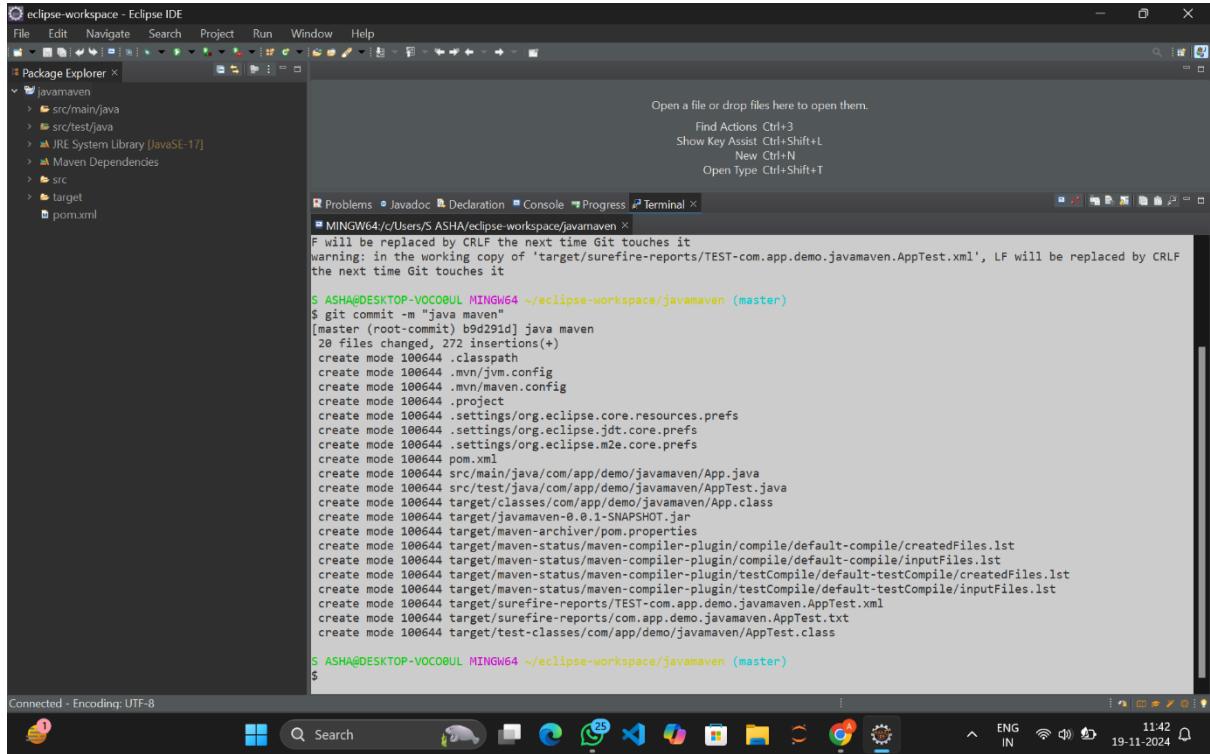
## 29. Commit the changes

The screenshot shows the Eclipse IDE interface with the title "eclipse-workspace - Eclipse IDE". In the center, there is a terminal window displaying a git commit command:

```
$ git commit -m "java maven"
[master (root-commit) b9d291d] java maven
 20 files changed, 272 insertions(+)
 create mode 100644 .classpath
 create mode 100644 .mvn/jvm.config
 create mode 100644 .mvn/maven.config
 create mode 100644 .project
 create mode 100644 .settings/org.eclipse.core.resources_prefs
 create mode 100644 .settings/org.eclipse.jdt.core_prefs
 create mode 100644 .settings/org.eclipse.m2e.core_prefs
 create mode 100644 pom.xml
 create mode 100644 src/main/java/com/app/demo/javamaven/App.java
 create mode 100644 src/test/java/com/app/demo/javamaven/AppTest.java
 create mode 100644 target/classes/com/app/demo/javamaven/App.class
 create mode 100644 target/javamaven-0.0.1-SNAPSHOT.jar
 create mode 100644 target/maven-archiver/pom.properties
 create mode 100644 target/maven-status/maven-compiler-plugin/compile/default-compile/createdFiles.lst
 create mode 100644 target/maven-status/maven-compiler-plugin/compile/default-compile/inputFiles.lst
 create mode 100644 target/maven-status/maven-compiler-plugin/testCompile/default-testCompile/createdFiles.lst
 create mode 100644 target/maven-status/maven-compiler-plugin/testCompile/default-testCompile/inputFiles.lst
 create mode 100644 target/surefire-reports/TEST-com.app.demo.javamaven.AppTest.xml
 create mode 100644 target/surefire-reports/com.app.demo.javamaven.AppTest.txt
 create mode 100644 target/test-classes/com/app/demo/javamaven/AppTest.class
```

The terminal window also shows the user's prompt: \$ ASHA@DESKTOP-VOC00UL MINGW64 ~/eclipse-workspace/javamaven (master)

## 30. The commit is done



The screenshot shows the Eclipse IDE interface with a terminal window open. The terminal window displays the following command and its output:

```
S ASHA@DESKTOP-VOCOBUL MINGW64 ~/eclipse-workspace/javamaven (master)
$ git commit -m "java maven"
[master (root-commit) b9d291d] java maven
 20 files changed, 272 insertions(+)
 create mode 100644 .classpath
 create mode 100644 .mvn/jvm.config
 create mode 100644 .mvn/maven.config
 create mode 100644 .project
 create mode 100644 .settings/org.eclipse.core.resourcesprefs
 create mode 100644 .settings/org.eclipse.jdt.core.preferences
 create mode 100644 .settings/org.eclipse.m2e.core.preferences
 create mode 100644 pom.xml
 create mode 100644 src/main/java/com/app/demo/javamaven/App.java
 create mode 100644 src/test/java/com/app/demo/javamaven/AppTest.java
 create mode 100644 target/classes/com/app/demo/javamaven/App.class
 create mode 100644 target/javamaven-0.1-SNAPSHOT.jar
 create mode 100644 target/maven-archiver/pom.properties
 create mode 100644 target/maven-status/maven-compiler-plugin/compile/default-compile/createdFiles.lst
 create mode 100644 target/maven-status/maven-compiler-plugin/compile/default-compile/inputFiles.lst
 create mode 100644 target/maven-status/maven-compiler-plugin/testCompile/default-testCompile/createdFiles.lst
 create mode 100644 target/maven-status/maven-compiler-plugin/testCompile/default-testCompile/inputFiles.lst
 create mode 100644 target/surefire-reports/TEST-com.app.demo.javamaven.AppTest.txt
 create mode 100644 target/surefire-reports/com.app.demo.javamaven.AppTest.xml
 create mode 100644 target/test-classes/com/app/demo/javamaven/AppTest.class
$ ASHA@DESKTOP-VOCOBUL MINGW64 ~/eclipse-workspace/javamaven (master)
```

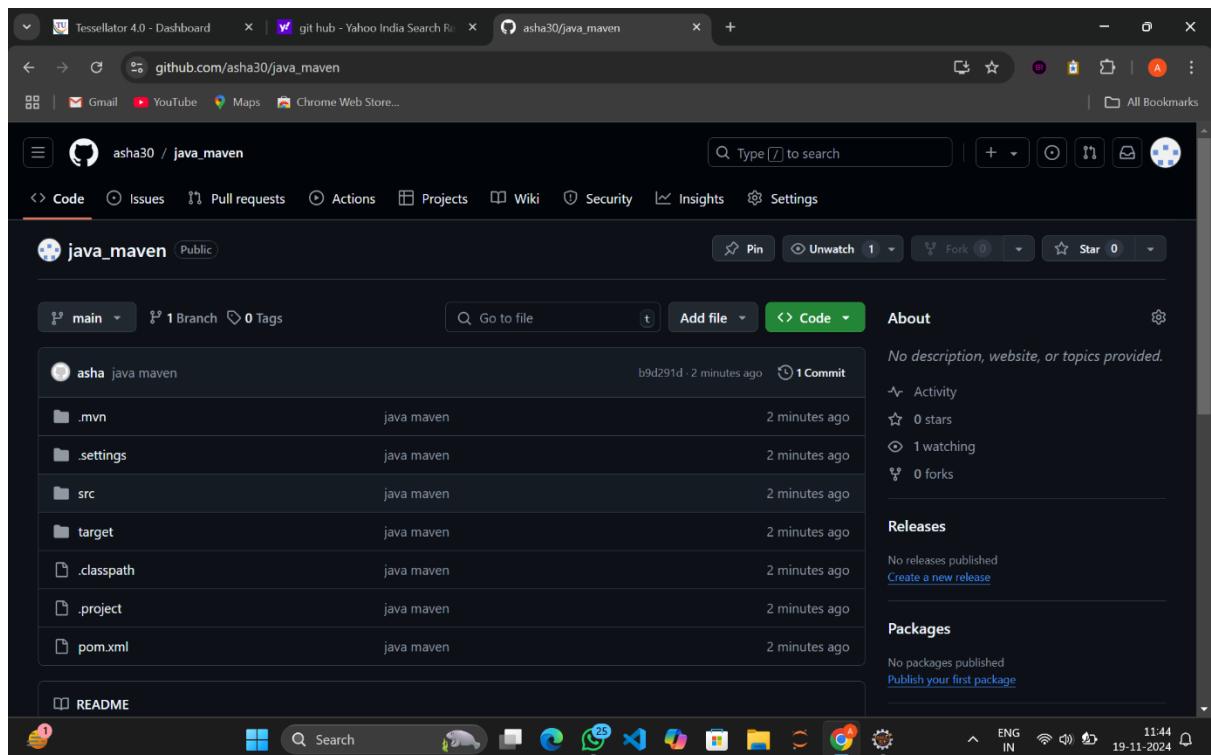
The terminal window is titled "Terminal" and is located in the Eclipse IDE interface. The output shows the results of a "git commit" command, indicating 20 files changed and 272 insertions. The commit message is "java maven". The terminal window is part of the Eclipse IDE interface, which includes a Package Explorer, Problems view, and other standard IDE components.

31. Now add the remote repository using remote add origin command
32. And also use the push command to push changes

The screenshot shows the Eclipse IDE interface with the terminal tab active. The terminal window displays the following command-line session:

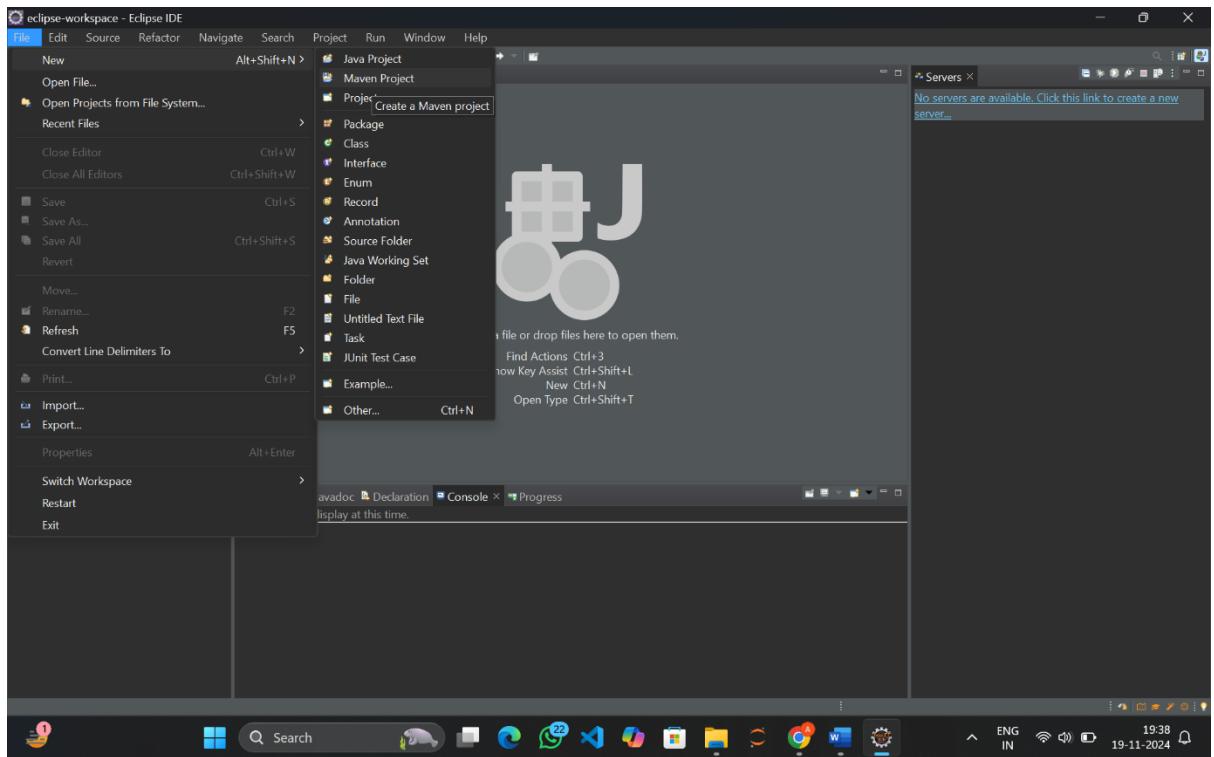
```
MINGW64:/Users/ASHA/eclipse-workspace/javamaven % git branch -M main
SASHA@DESKTOP-VOCOBUL MINGW64 ~/eclipse-workspace/javamaven (main)
$ git remote add origin https://github.com/asha30/java_maven.git
SASHA@DESKTOP-VOCOBUL MINGW64 ~/eclipse-workspace/javamaven (main)
$ git push -u origin main
Enumerating objects: 55, done.
Counting objects: 100% (55/55), done.
Delta compression using up to 12 threads.
Compressing objects: 100% (26/26), done.
Writing objects: 100% (55/55), 9.03 KiB | 616.00 KiB/s, done.
Total 55 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/asha30/java_maven.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
```

You can see the pushed changes on the github account repository

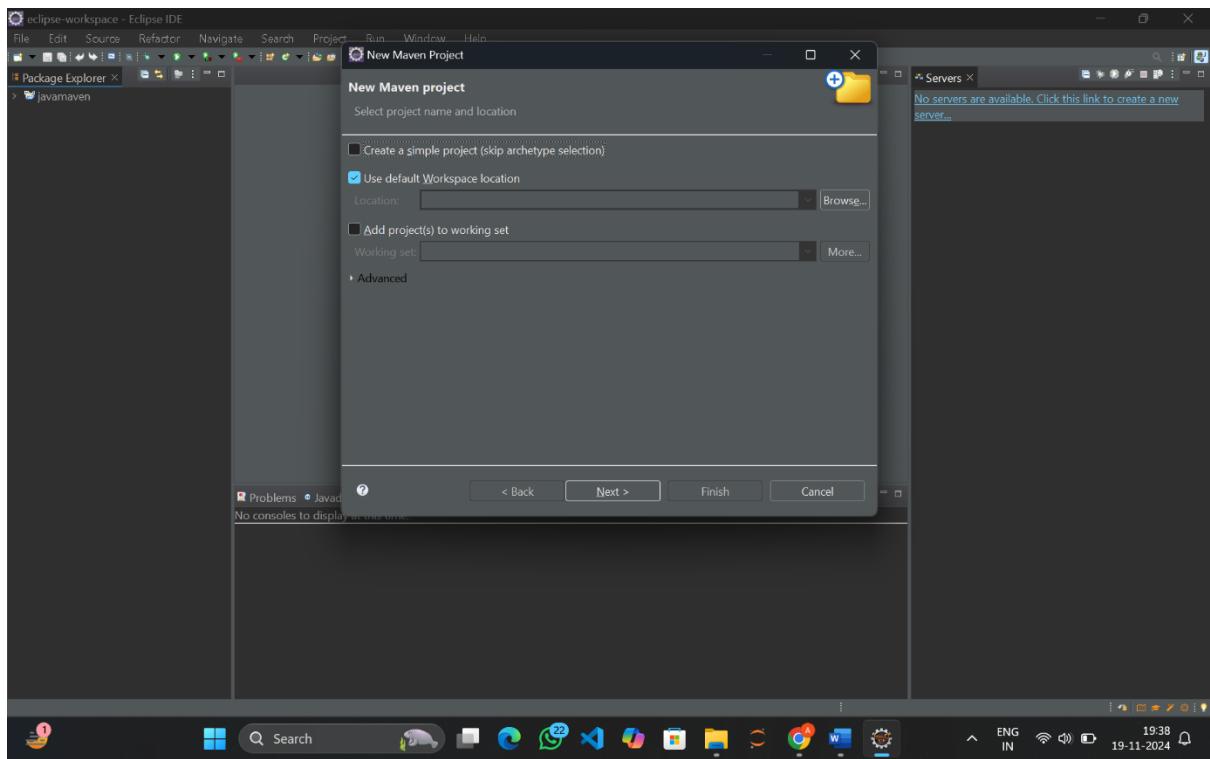


# MAVEN WEBAPP

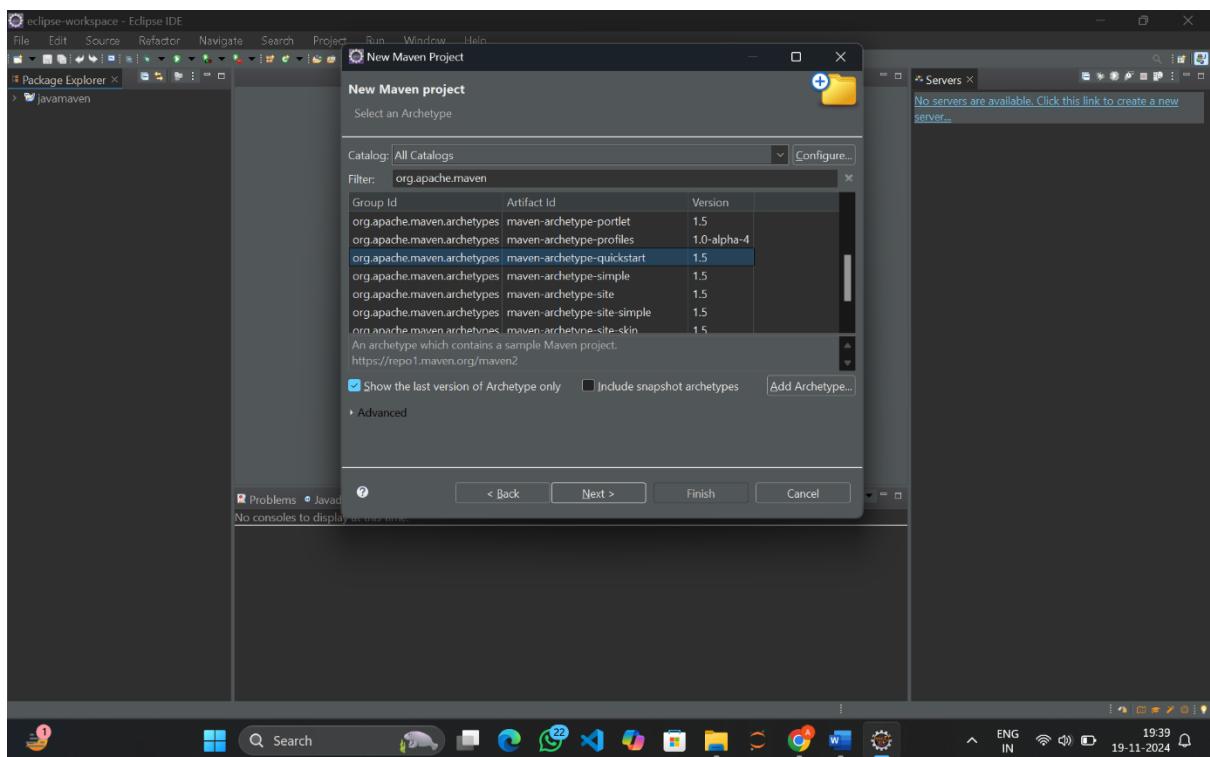
## 1. Open Eclipse, Go to File->New->Maven Project



## 2. Click on Next

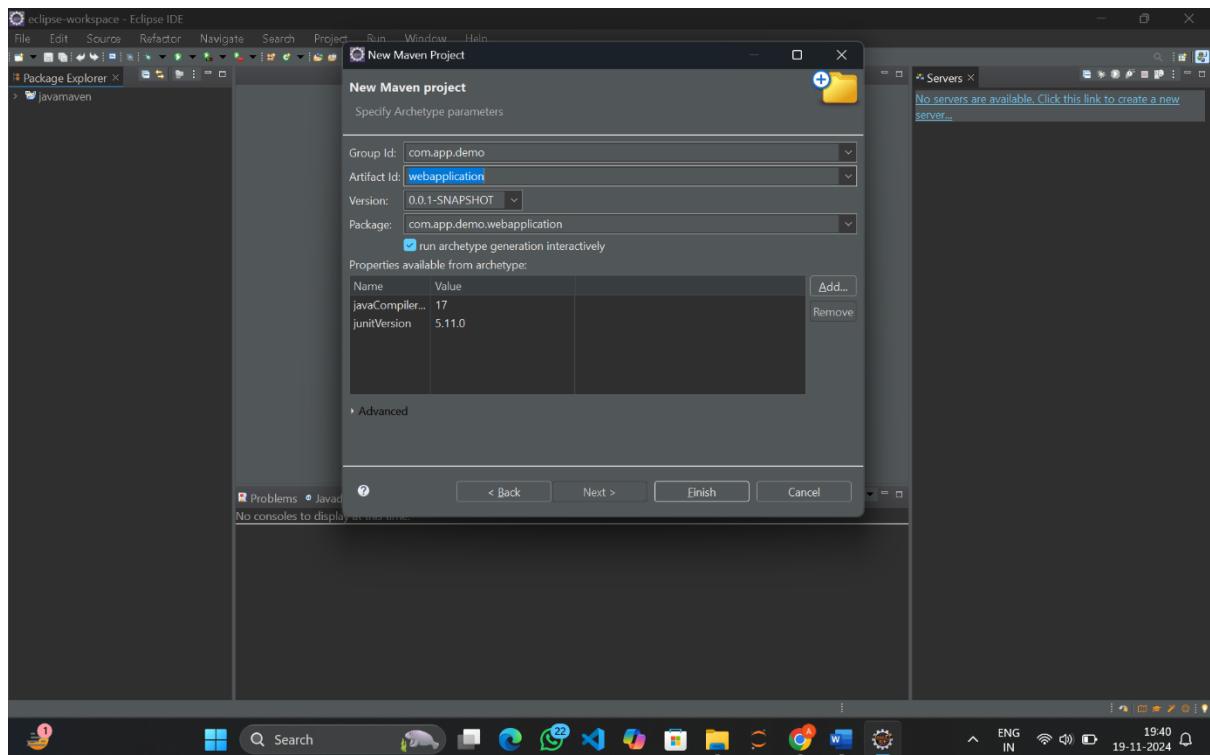


### 3. In the filters type org.apache.maven

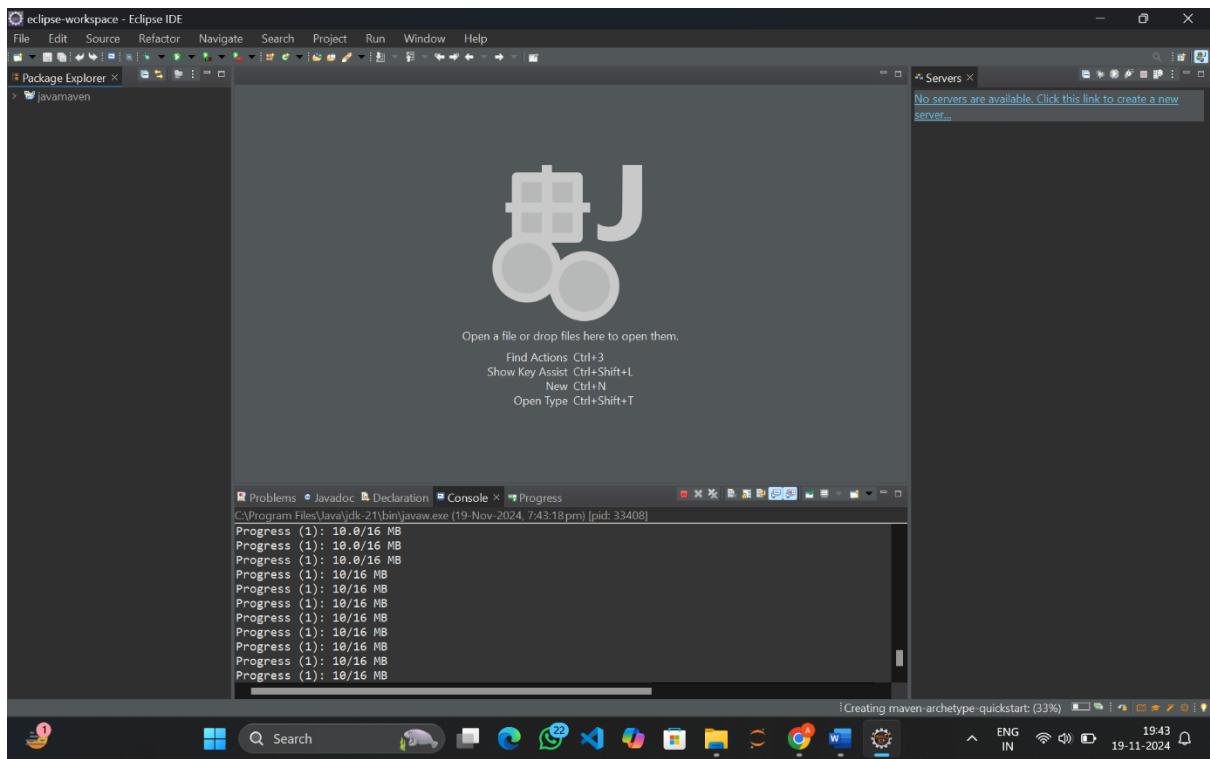


### 4. Select maven-archetype-quickstart

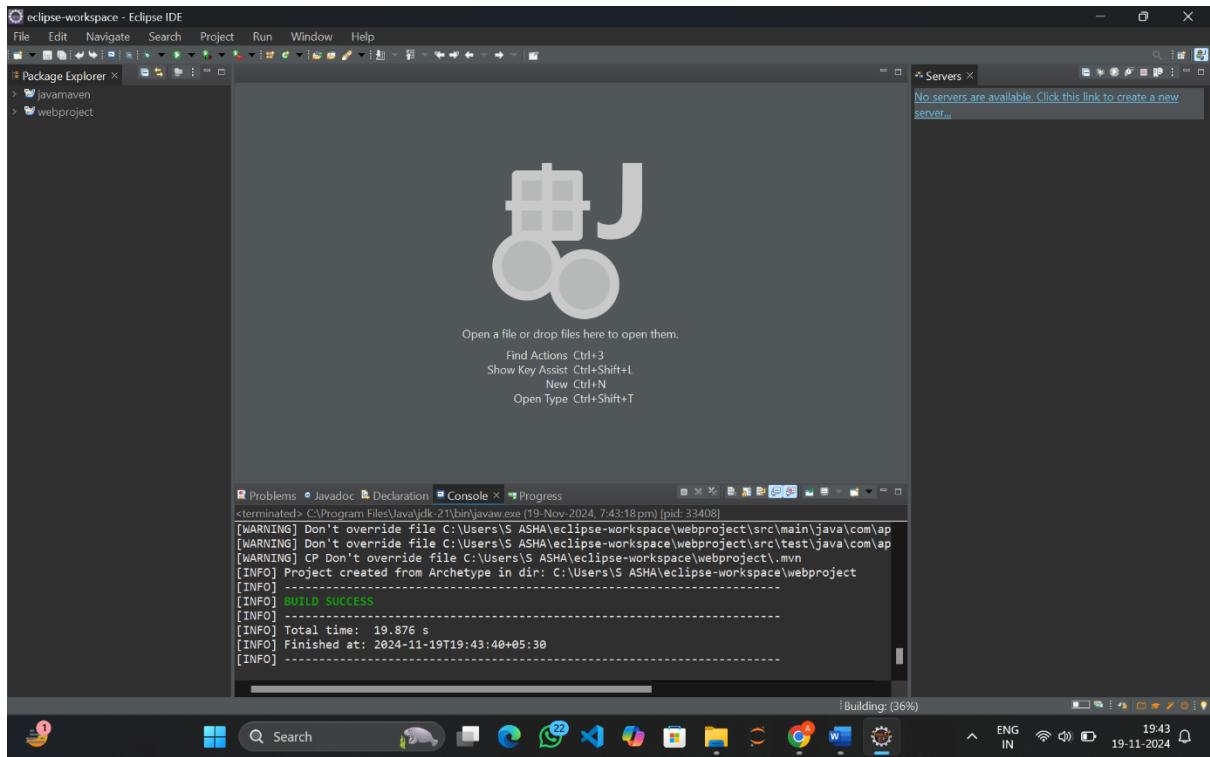
## 5. Let the group Id be com.app.demo and artifact Id as webapplication



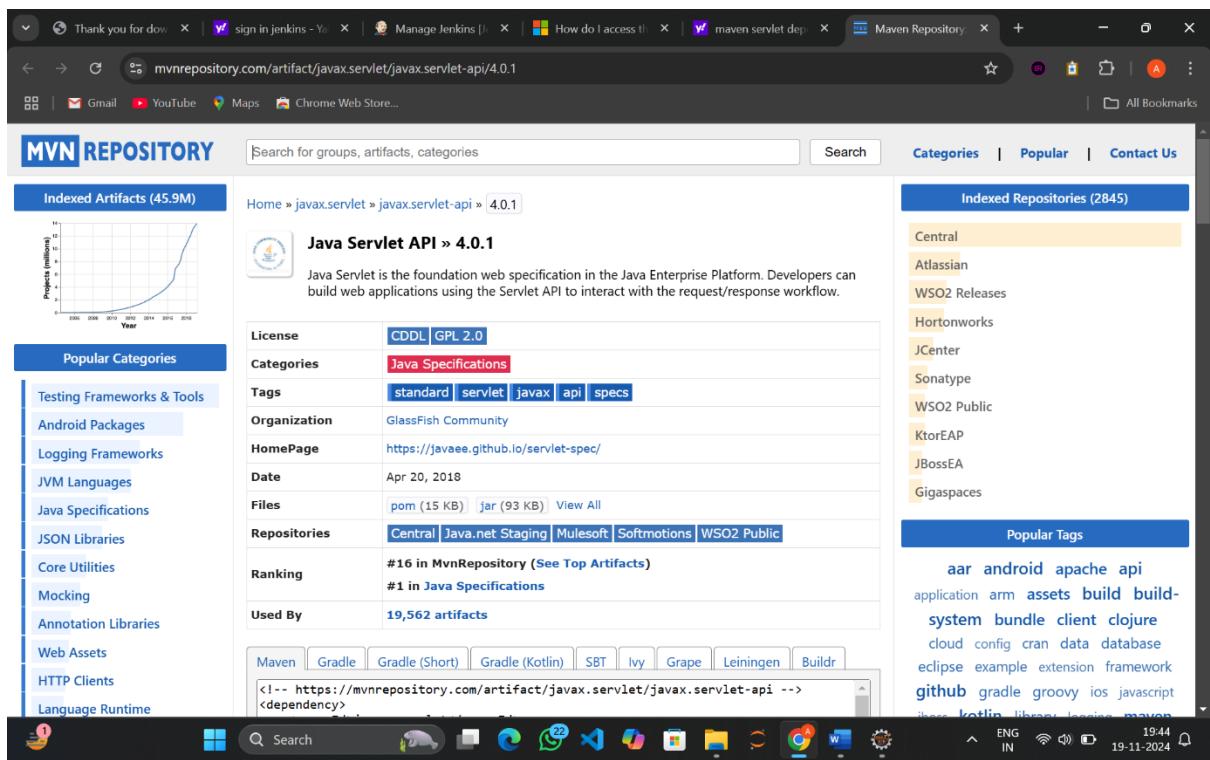
## 6. Click on Finish and you can the download starts, Type Y in console



## 7. The build was successful



## 8. Go to Google and search maven servlet dependency



## 9. Click on the link

The screenshot shows a browser window with the URL [mvnrepository.com/artifact/javax.servlet/javax.servlet-api/4.0.1](https://mvnrepository.com/artifact/javax.servlet/javax.servlet-api/4.0.1). The page title is "Java Servlet API > 4.0.1". The main content area displays the following details:

License	CDDL   GPL 2.0
Categories	Java Specifications
Tags	standard   servlet   javax   api   specs
Organization	GlassFish Community
HomePage	<a href="https://javaee.github.io/servlet-spec/">https://javaee.github.io/servlet-spec/</a>
Date	Apr 20, 2018
Files	<a href="#">pom (15 KB)</a>   <a href="#">jar (93 KB)</a>   <a href="#">View All</a>
Repositories	Central   Java.net Staging   Mulesoft   Softmotions   WSO2 Public
Ranking	#16 in MvnRepository (See Top Artifacts) #4 in Java Specifications
Used By	19,562 artifacts

Below the table, there is a code snippet example:

```
<!-- https://mvnrepository.com/artifact/javax.servlet/javax.servlet-api -->
<dependency>
```

The right sidebar contains sections for "Indexed Repositories (2845)" and "Popular Tags".

## 10. Click on the 2.5 version

The screenshot shows a browser window with the URL [mvnrepository.com/artifact/javax.servlet/servlet-api/2.5](https://mvnrepository.com/artifact/javax.servlet/servlet-api/2.5). The page title is "JavaServlet(TM) Specification > 2.5". The main content area displays the following details:

License	CDDL   GPL 2.0
Categories	Java Specifications
Tags	standard   servlet   javax   api   specs
Date	Jul 17, 2006
Files	<a href="#">pom (157 bytes)</a>   <a href="#">jar (102 KB)</a>   <a href="#">View All</a>
Repositories	Central   Archive   D4Science DNETD   Glu OX   Java.net   Marketcetera   Redhat EA   SciJava Public
Ranking	#49 in MvnRepository (See Top Artifacts) #2 in Java Specifications
Used By	13,424 artifacts

A note at the bottom states: "Note: There is a new version for this artifact". Below it, a box shows the "New Version" as "3.0-alpha-1".

The right sidebar contains sections for "Indexed Repositories (2845)" and "Popular Tags".

## 11.Copy the code

Java Servlet is the foundation web specification in the Java Enterprise Platform. Developers can build web applications using the Servlet API to interact with the request/response workflow.

**License**: CDDL | GPL 2.0

**Categories**: Java Specifications

**Tags**: standard, servlet, javax, api, specs

**Organization**: GlassFish Community

**HomePage**: <https://javaee.github.io/servlet-spec/>

**Date**: Apr 20, 2018

**Files**: pom (15 KB) | jar (93 KB) | View All

**Repositories**: Central | Java.net Staging | Mulesoft | Softmotions | WSO2 Public

**Ranking**: #16 in MvnRepository (See Top Artifacts)

**Used By**: 19,562 artifacts

**Popular Tags**: aar, android, apache, api, application, arm, assets, build, system, bundle, client, clojure, cloud, config, cran, data, database, eclipse, example, extension, framework, github, gradle, groovy, ios, javascript, jboss, kotlin, library, logging, maven, mobile, module, npm, osgi, plugin, resources, rlang, sdk, server, service, spring, sql, starter, testing, tools, ui, war, web, webapp

```
<!-- https://mvnrepository.com/artifact/javax.servlet/javax.servlet-api -->
<dependency>
    <groupId>javax.servlet</groupId>
    <artifactId>javax.servlet-api</artifactId>
    <version>4.0.1</version>
    <scope>provided</scope>
</dependency>
```

Include comment with link to declaration

## 12.Paste it in the pom.xml file under the dependencies tag and save changes

```
<!-- https://mvnrepository.com/artifact/javax.servlet/javax.servlet-api -->
<dependency>
    <groupId>javax.servlet</groupId>
    <artifactId>javax.servlet-api</artifactId>
    <version>4.0.1</version>
    <scope>provided</scope>
</dependency>
```

## 13. Now Start the Server

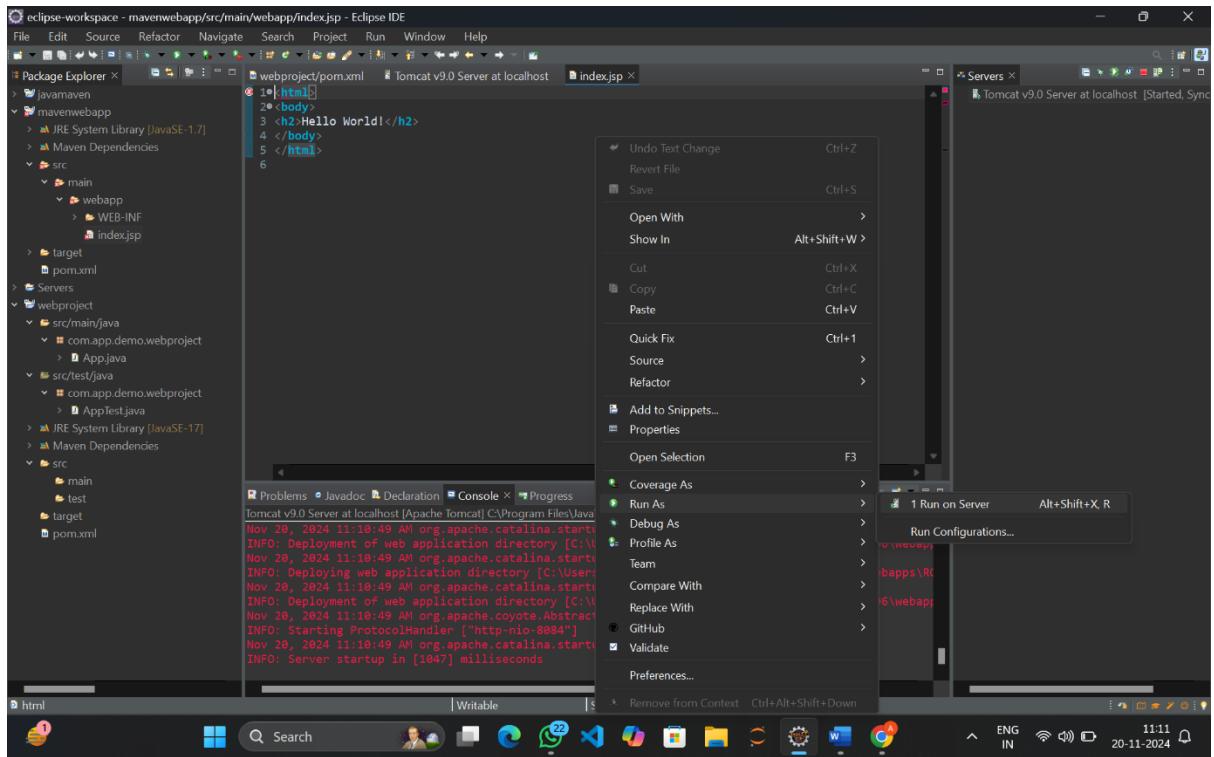
## 14. The server is started

The screenshot shows the Eclipse IDE interface with the following details:

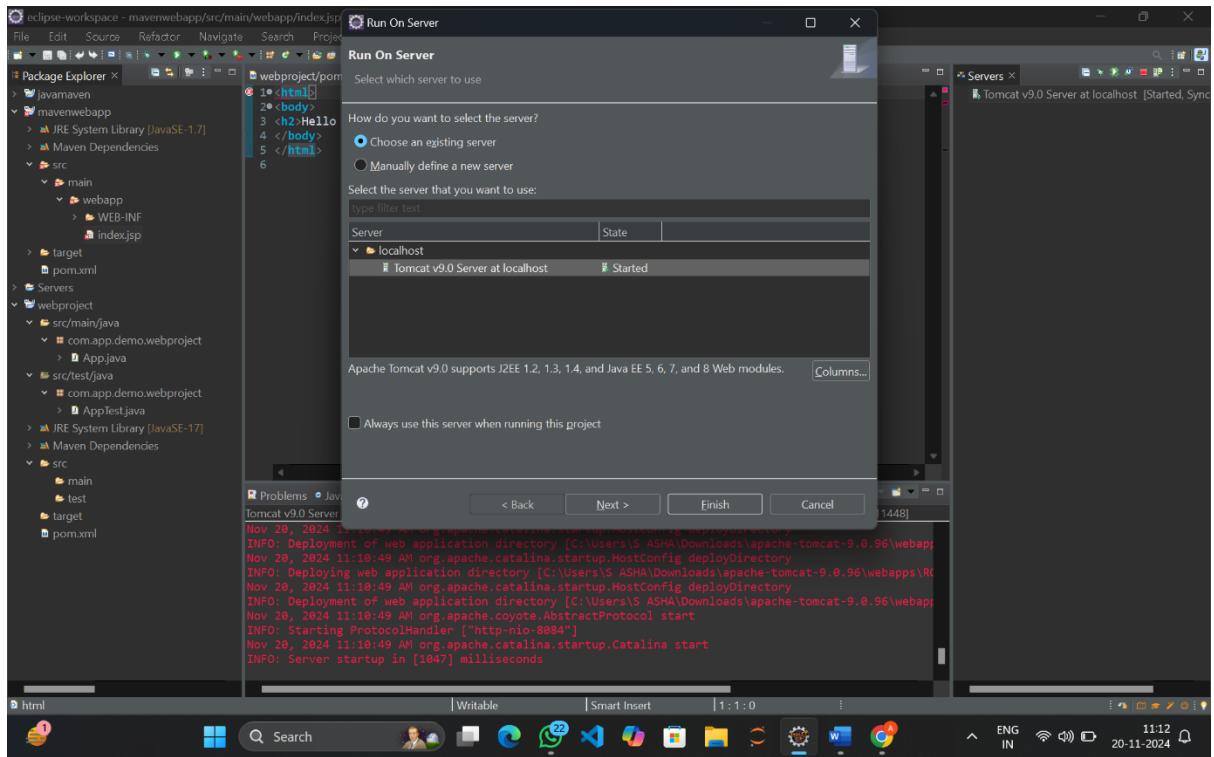
- Project Explorer:** Shows the project structure with nodes like "javamavenproject", "Servers", and "webapplication".
- pom.xml Editor:** Displays the Maven POM XML configuration file. Key sections include:
  - <groupId>com.app.demo</groupId>
  - <artifactId>webapplication</artifactId>
  - <version>0.0.1-SNAPSHOT</version>
  - <packaging>war</packaging>
  - <name>webapplication Maven Webapp</name>
  - <!-- FIXME change it to the project's website -->
  - <url>http://www.example.com</url>
  - <properties>
  - <!-- project.build.sourceEncoding=UTF-8</project.build.sourceEncoding>
  - <maven.compiler.source>8</maven.compiler.source>
  - <maven.compiler.target>8</maven.compiler.target>
  - </properties>
  - <dependencies>
  - <dependency>
  - <groupId>junit</groupId>
  - <artifactId>junit</artifactId>
  - <version>4.13.1</version>
  - <scope>test</scope>
  - </dependency>
  - <!-- https://mvnrepository.com/artifact/javax.servlet/servlet-api -->
- Servers View:** Shows a single server entry: "tomcat v9.0 Server at localhost [Started, Synchronized]".

## 15. Open the index.jsp file under src->main->webapp

## 16. Right click and Select Run As-> Run on server

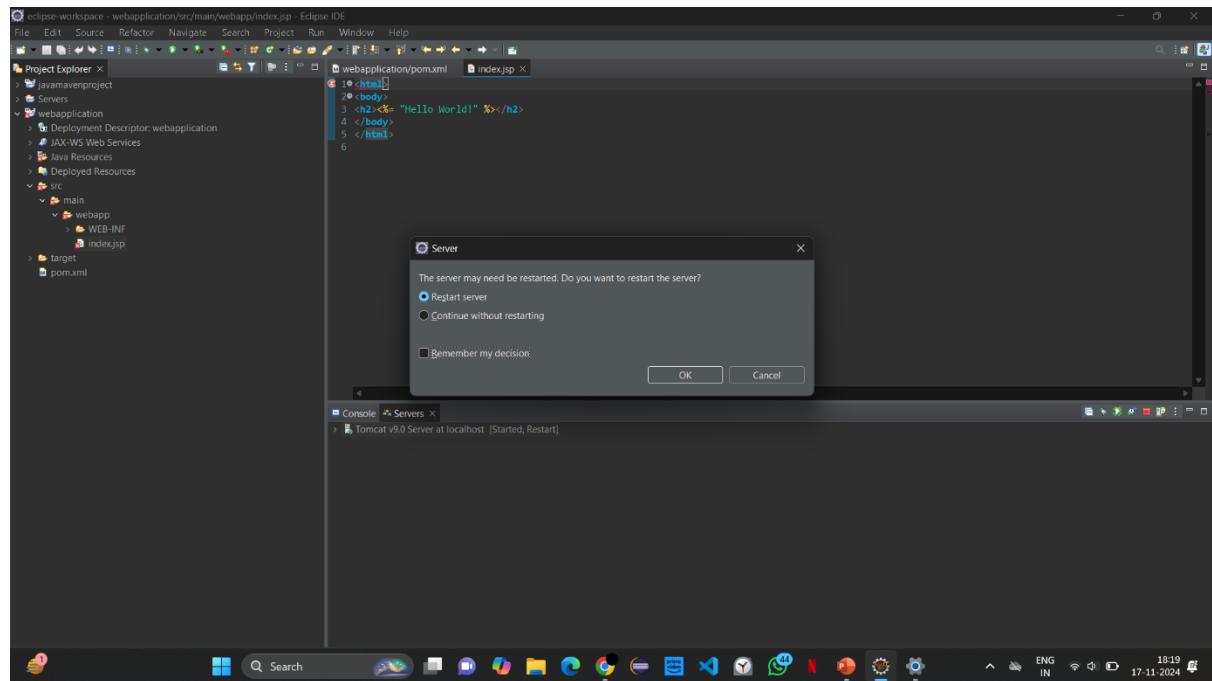


## 17. The following box appears, select the sever

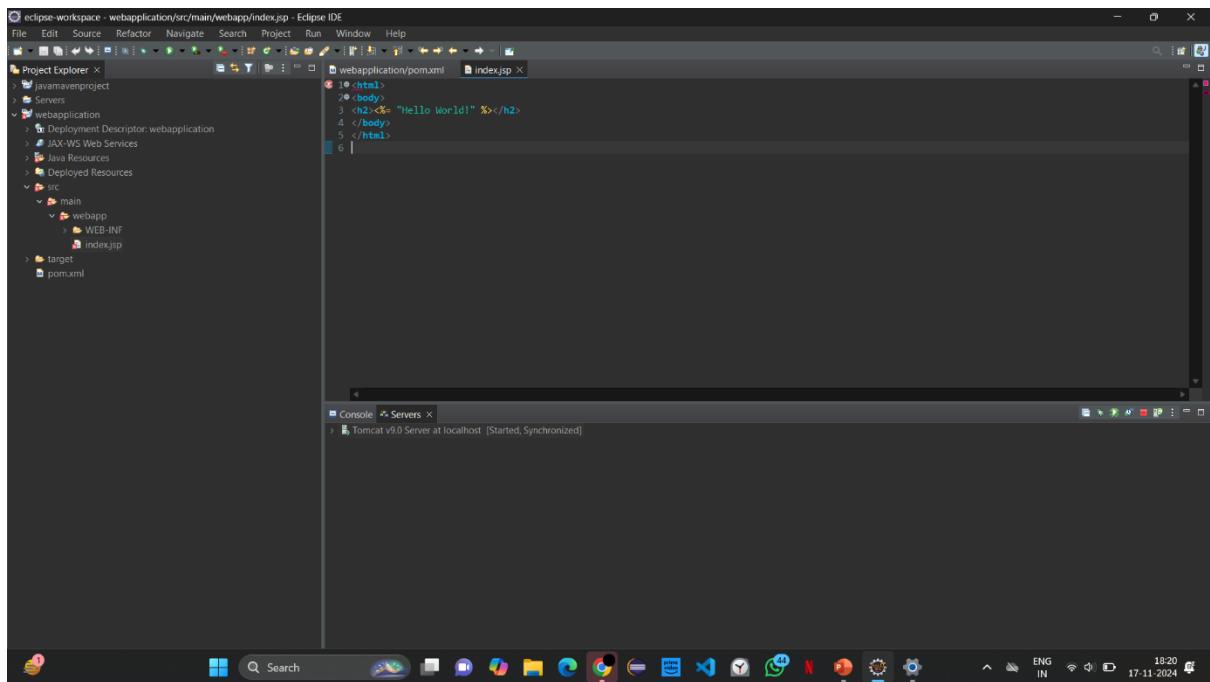


**18.We have out webapplication on the configured side, Click Finish**

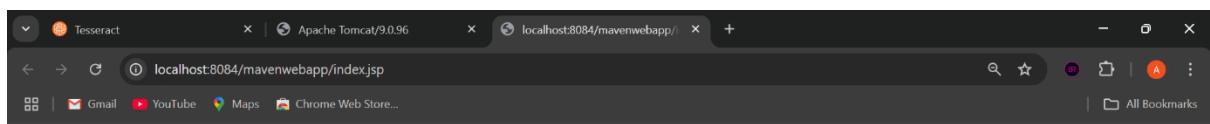
**19.ReStart the server**



**20.The server opens on the browser**



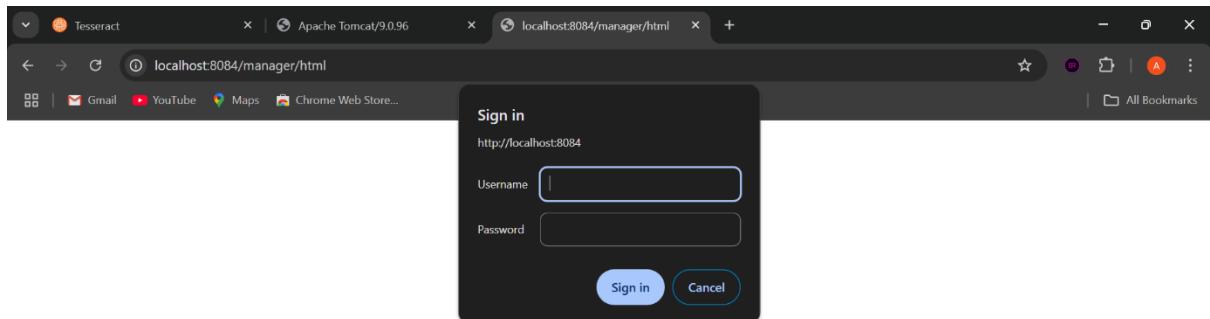
## 21. You can see Hello World when you open the browser



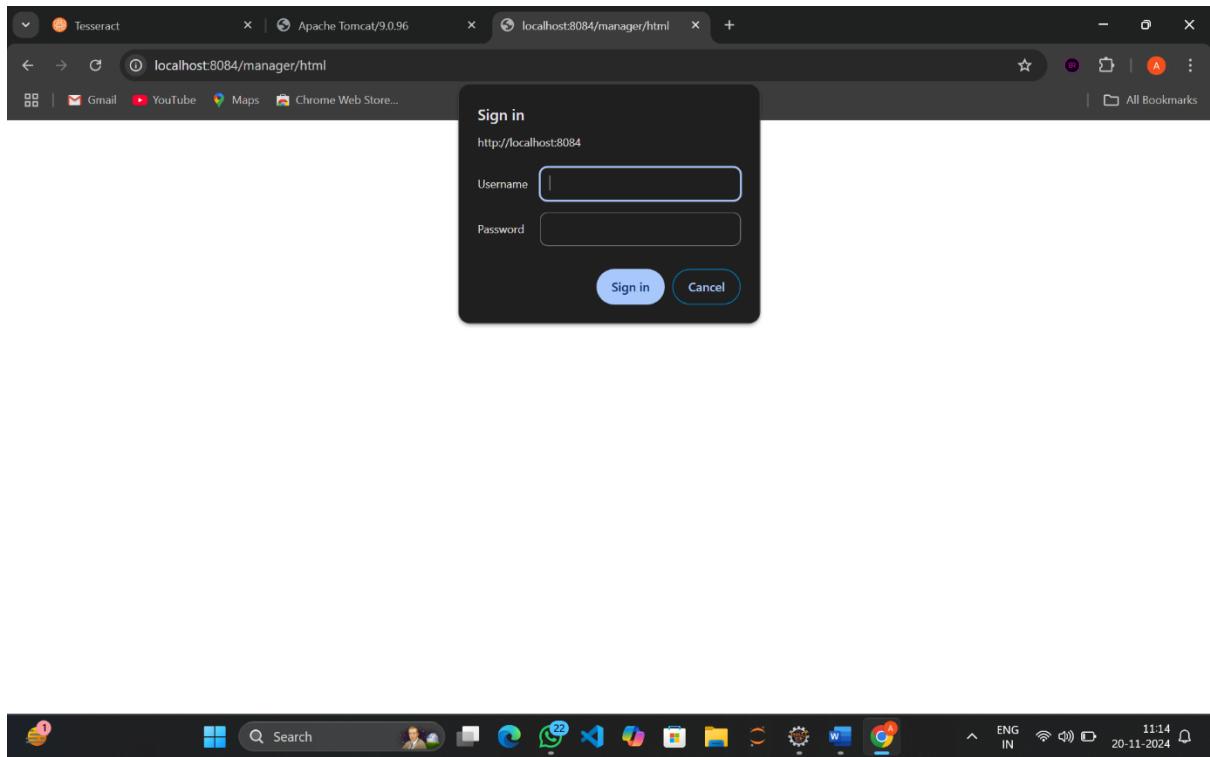
Hello World!



**22.Navigate to the manager site and type the username and password**



**23.SIGN IN**



## 24.The Manager Application is opened

A screenshot of a web browser window displaying the Tomcat Web Application Manager. The title bar shows 'localhost:8084/manager/html'. The page features the Apache Software Foundation logo at the top right. Below it is the 'Tomcat Web Application Manager' header. A message box says 'Message: OK'. The main content is divided into sections: 'Manager' (List Applications, HTML Manager Help, Manager Help, Server Status), 'Applications' (a table listing various applications like 'Welcome to Tomcat', 'Tomcat Documentation', etc., with columns for Path, Version, Display Name, Running, Sessions, and Commands), and 'Deploy' (Deploy directory or WAR file located on server). The taskbar at the bottom shows various application icons and the date/time '20-11-2024 11:32'.

The screenshot shows the Eclipse IDE interface with a terminal window open in the bottom right corner. The terminal displays a series of git commands and their outputs, indicating the creation of a new branch named 'main' from the 'origin/main' branch. The commits show the addition of various Eclipse core resources and project facets. The terminal window has a dark theme and is titled 'Terminal'.

```
S ASHA@DESKTOP-VOCO0UL MINGW64 ~/eclipse-workspace/mavenwebapp (master)
$ git init
Initialized empty Git repository in C:/Users/S ASHA/eclipse-workspace/mavenwebapp/.git/
S ASHA@DESKTOP-VOCO0UL MINGW64 ~/eclipse-workspace/mavenwebapp (master)
$ git add .
warning: in the working copy of 'src/main/webapp/WEB-INF/web.xml', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'src/main/webapp/index.jsp', LF will be replaced by CRLF the next time Git touches it

S ASHA@DESKTOP-VOCO0UL MINGW64 ~/eclipse-workspace/mavenwebapp (master)
$ git commit -m "webapp"
[master (root-commit) 5201895] webapp
 17 files changed, 284 insertions(+)
create mode 100644 .classpath
create mode 100644 .project
create mode 100644 .settings/.jsdtscope
create mode 100644 .settings/org.eclipse.core.resources_prefs
create mode 100644 .settings/org.eclipse.jdt.core_prefs
create mode 100644 .settings/org.eclipse.m2e.core_prefs
create mode 100644 .settings/org.eclipse.wst.common_component
create mode 100644 .settings/org.eclipse.wst.common_project_facet.core.xml
create mode 100644 .settings/org.eclipse.wst.jsdt.ui.superType.container
create mode 100644 .settings/org.eclipse.wst.jsdt.ui.superType.name
create mode 100644 .settings/org.eclipse.wst.validation_prefs
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.

S ASHA@DESKTOP-VOCO0UL MINGW64 ~/eclipse-workspace/mavenwebapp (main)
$

S ASHA@DESKTOP-VOCO0UL MINGW64 ~/eclipse-workspace/mavenwebapp (main)
```

This screenshot is nearly identical to the one above, showing the same Eclipse IDE environment. However, the terminal window now contains a single blank line, indicating that no further commands have been entered or executed since the previous screenshot.

```
$
```

