American International University-Bangladesh

Department of Computer Science

Software Quality and Testing

Section : B

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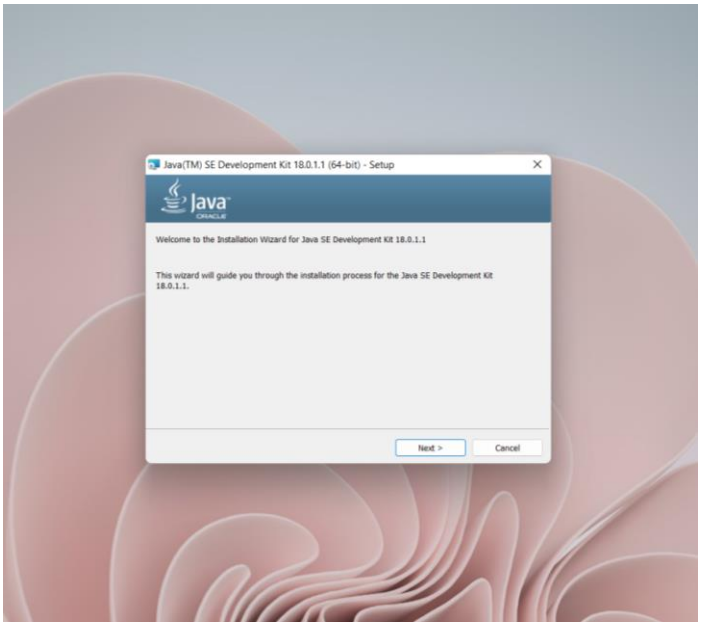
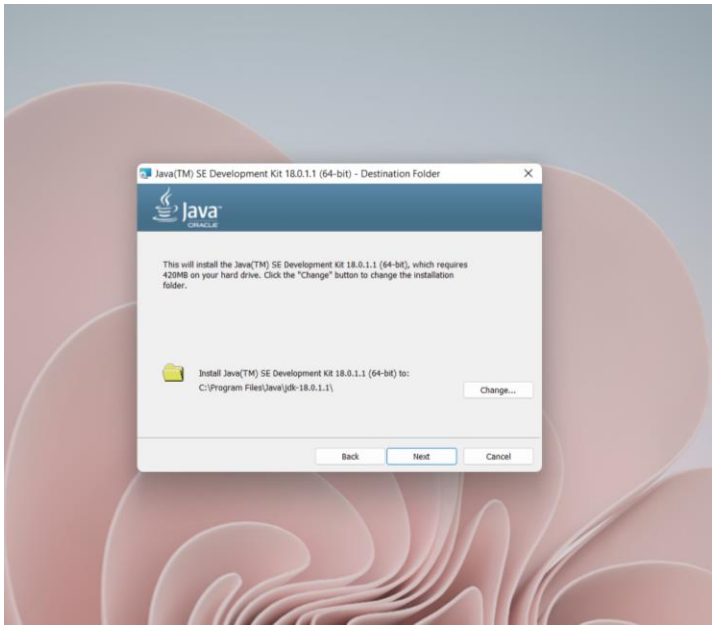
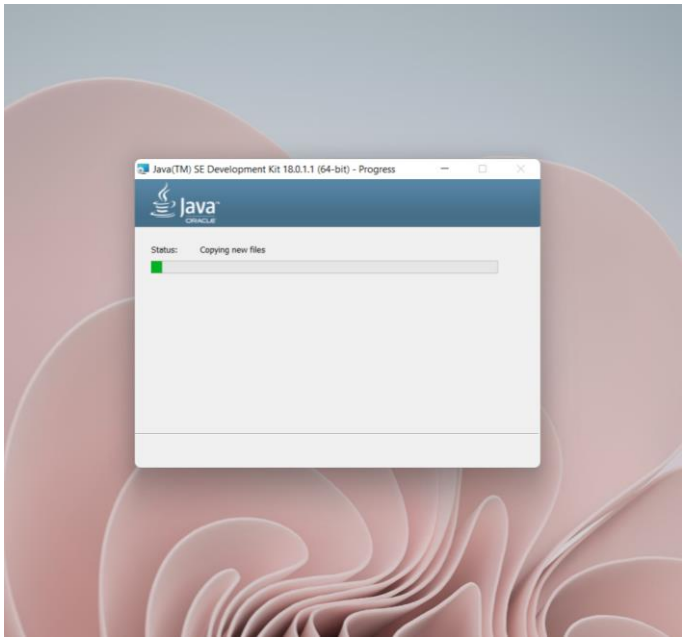
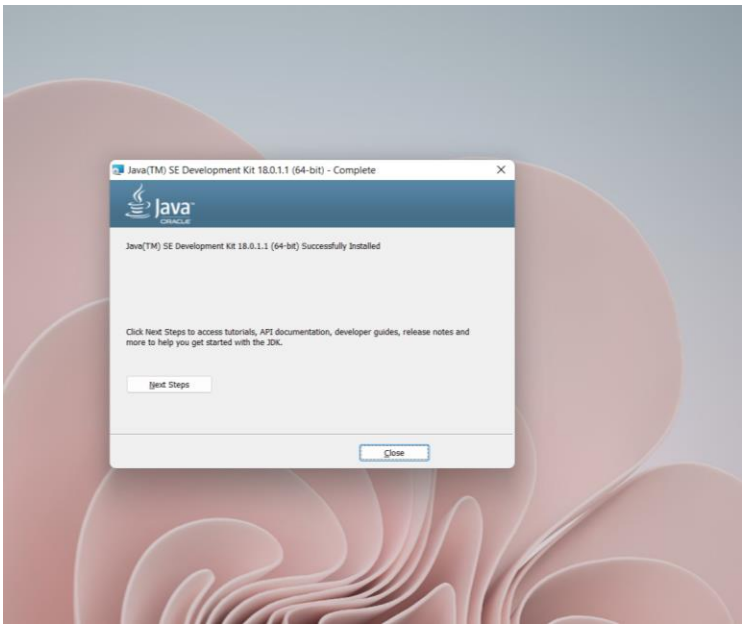
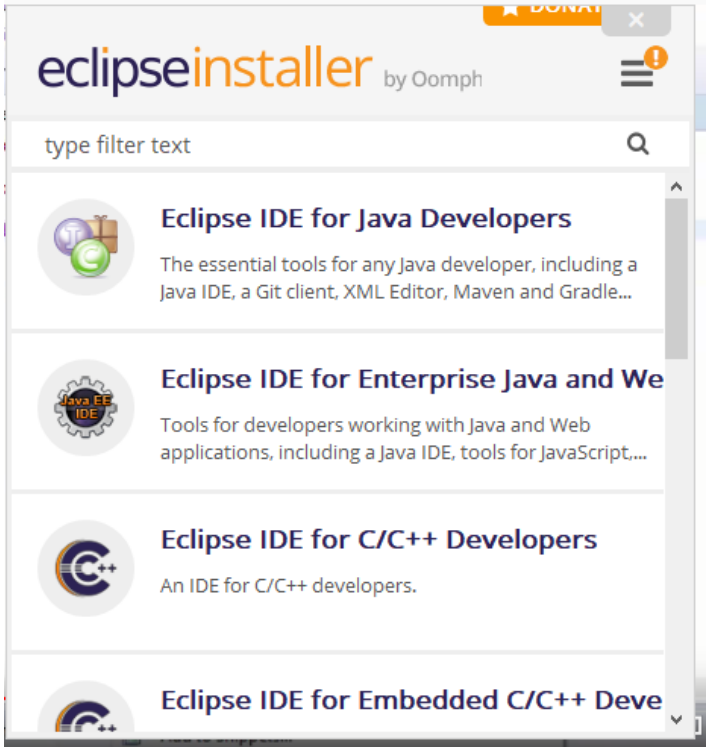
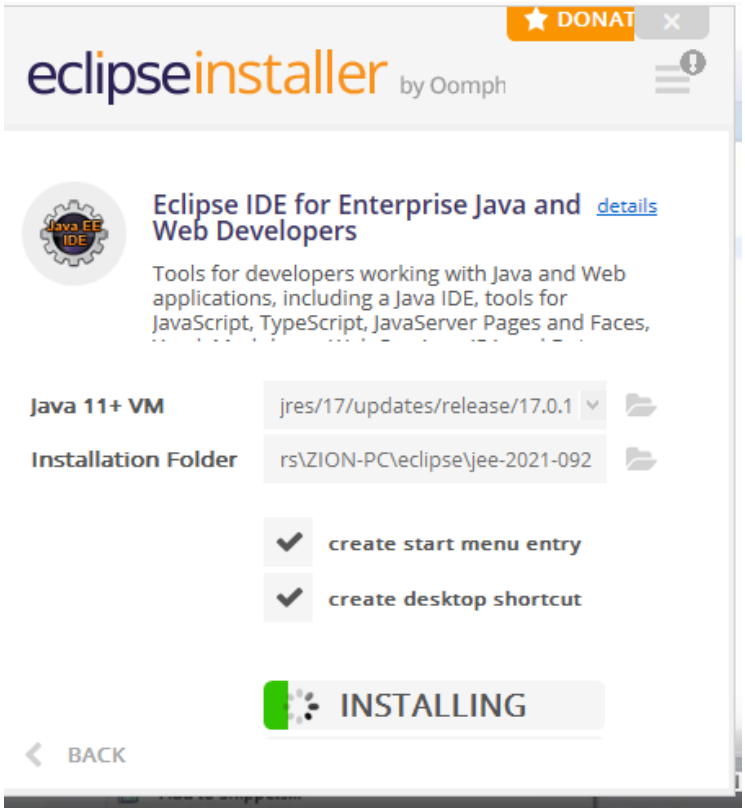

Java(TM) SE Development Kit 18.0.1.1 (64-bit) - Setup
Java
ORACLE
Welcome to the Installation Wizard for Java SE Development Kit 18.0.1.1
This wizard will guide you through the installation process for the Java SE Development Kit 18.0.1.1.
Next >
Cancel

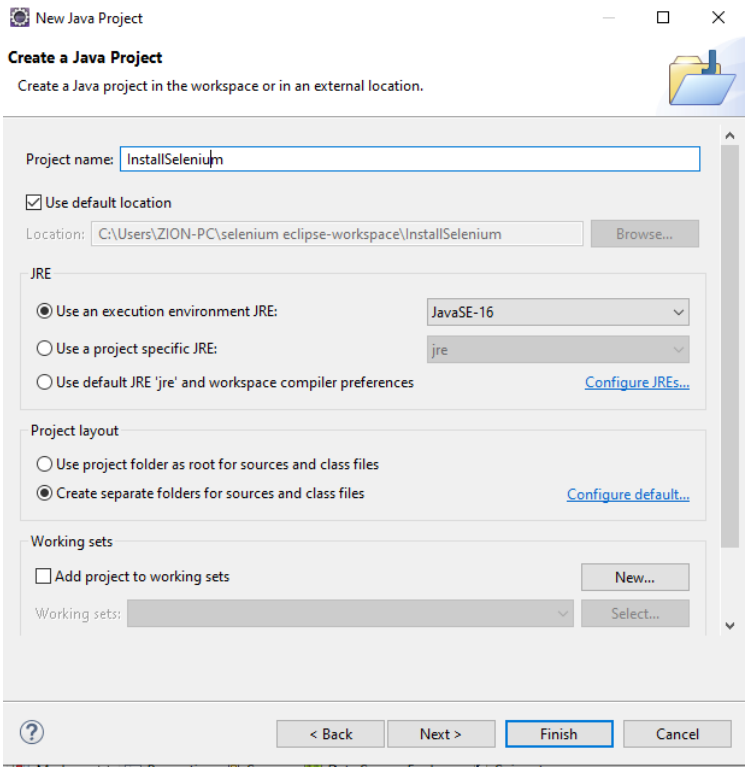

Java(TM) SE Development Kit 18.0.1.1 (64-bit) - Destination Folder
Java
ORACLE
This will install the Java(TM) SE Development Kit 18.0.1.1 (64-bit), which requires 420MB on your hard drive. Click the "Change" button to change the installation folder.
Install Java(TM) SE Development Kit 18.0.1.1 (64-bit) to:
C:\Program Files\Java\jdk-18.0.1.1\
Change...
Back
Next
Cancel

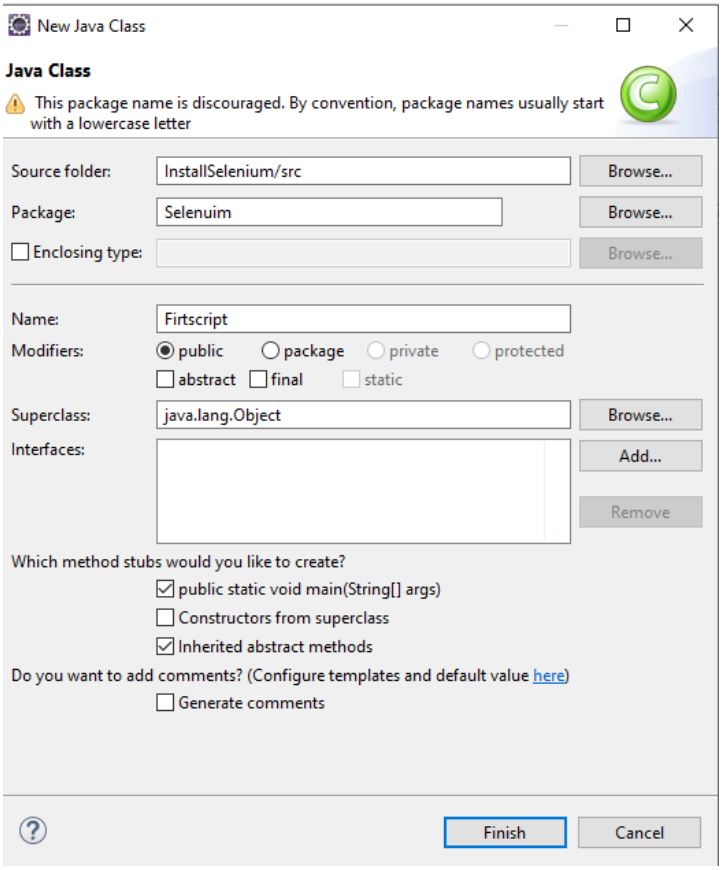

Java(TM) SE Development Kit 18.0.1.1 (64-bit) - Progress
Java
ORACLE
Status: Copying new files

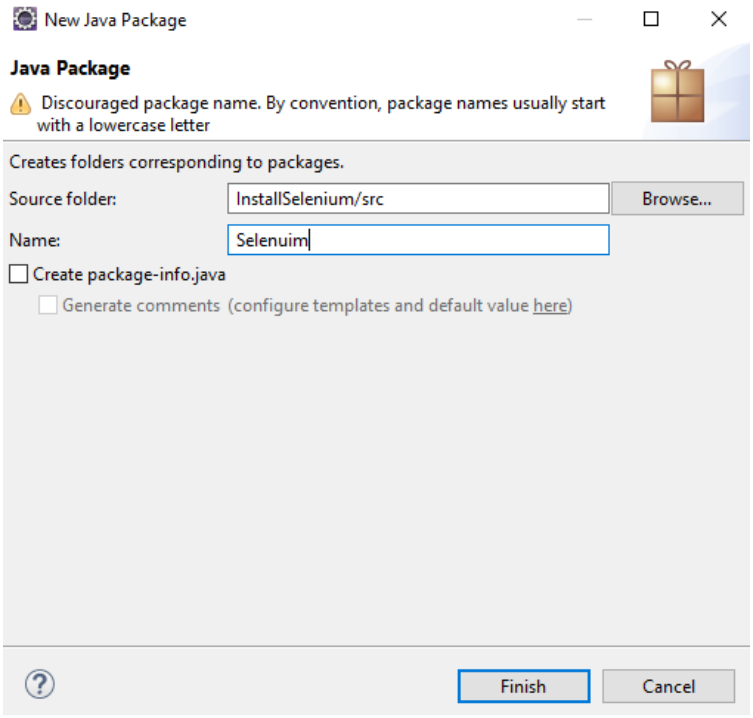

Java(TM) SE Development Kit 18.0.1.1 (64-bit) - Complete
Java
ORACLE
Java(TM) SE Development Kit 18.0.1.1 (64-bit) Successfully Installed
Click Next Steps to access tutorials, API documentation, developer guides, release notes and more to help you get started with the JDK.
Next Steps
Close

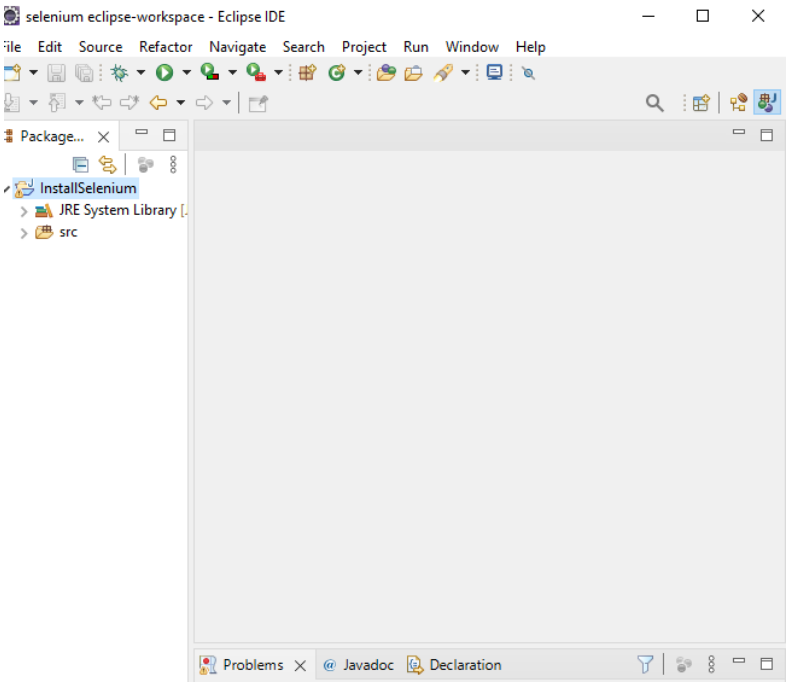

eclipseinstaller by Oomph
type filter text
Eclipse IDE for Java Developers
The essential tools for any Java developer, including a Java IDE, a Git client, XML Editor, Maven and Gradle...
Eclipse IDE for Enterprise Java and We
Tools for developers working with Java and Web applications, including a Java IDE, tools for JavaScript,...
Eclipse IDE for C/C++ Developers
An IDE for C/C++ developers.
Eclipse IDE for Embedded C/C++ Deve

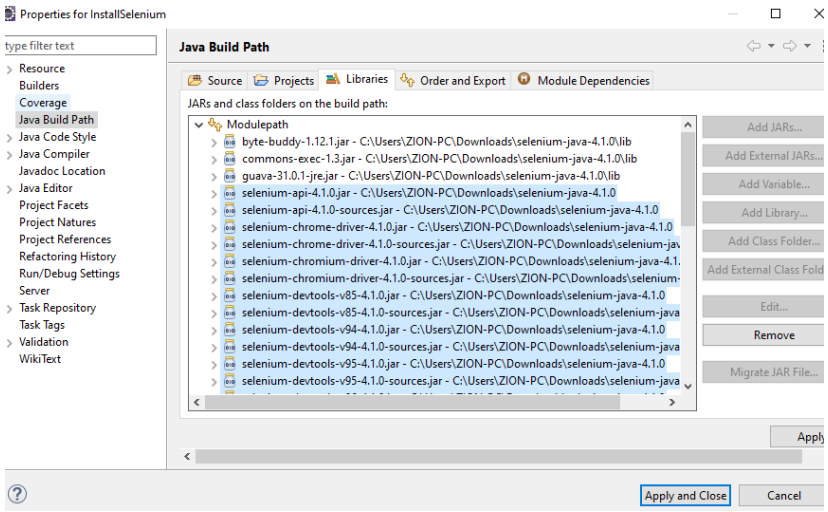

DONAT
eclipseinstaller by Oomph
Eclipse IDE for Enterprise Java and Web Developers
details
Tools for developers working with Java and Web applications, including a Java IDE, tools for JavaScript, TypeScript, JavaServer Pages and Faces,
Java 11+ VM
jres/17/updates/release/17.0.1
Installation Folder
rs\ZION-PC\eclipse\jee-2021-092
create start menu entry
create desktop shortcut
INSTALLING
BACK

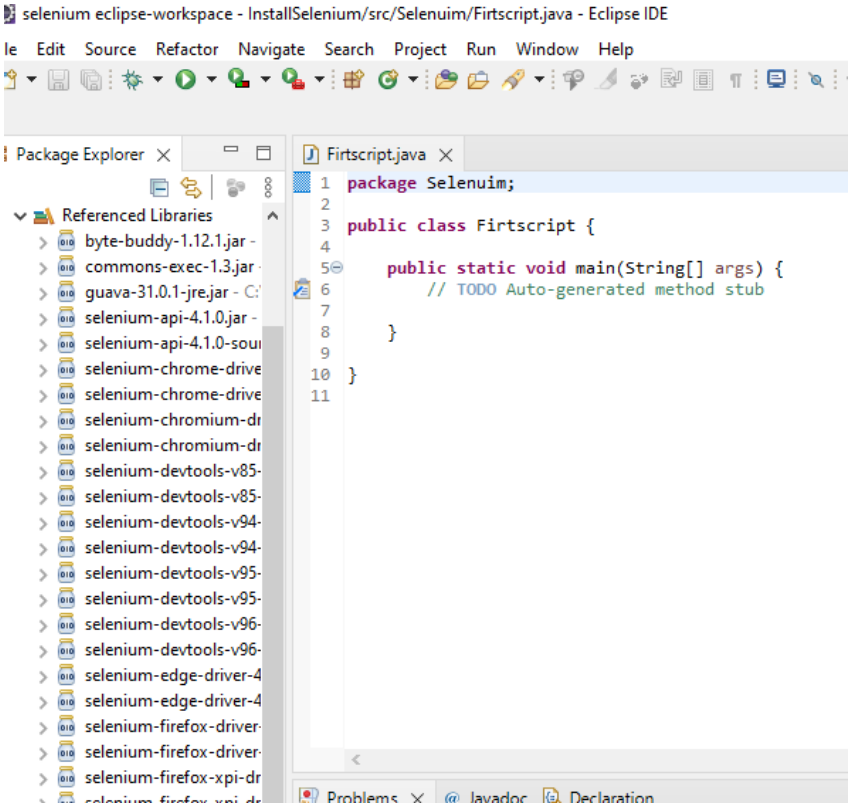

New Java Project
Create a Java Project
Create a Java project in the workspace or in an external location.
Project name: InstallSelenium
Use default location
Location: C:\Users\ZION-PC\selenium eclipse-workspace\InstallSelenium
Browse...
JRE
Use an execution environment JRE:
JavaSE-16
Use a project specific JRE:
jre
Use default JRE 'jre' and workspace compiler preferences
Configure JREs...
Project layout
Use project folder as root for sources and class files
Create separate folders for sources and class files
Configure default...
Working sets
Add project to working sets
New...
Working sets:
Select...
< Back
Next >
Finish
Cancel

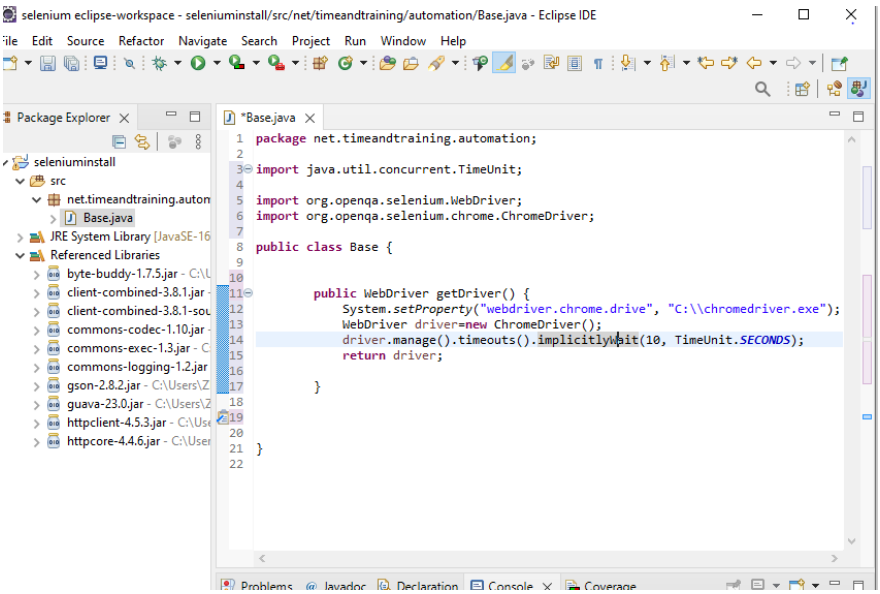

New Java Class
Java Class
This package name is discouraged. By convention, package names usually start with a lowercase letter
Source folder: InstallSelenium/src
Browse...
Package: Selenuim
Browse...
Enclosing type:
Browse...
Name: Firtscript
Modifiers: public package private protected
abstract final static
Superclass: java.lang.Object
Browse...
Interfaces:
Add...
Remove
Which method stubs would you like to create?
public static void main(String[] args)
Constructors from superclass
Inherited abstract methods
Do you want to add comments? (Configure templates and default value here)
Generate comments
Finish
Cancel

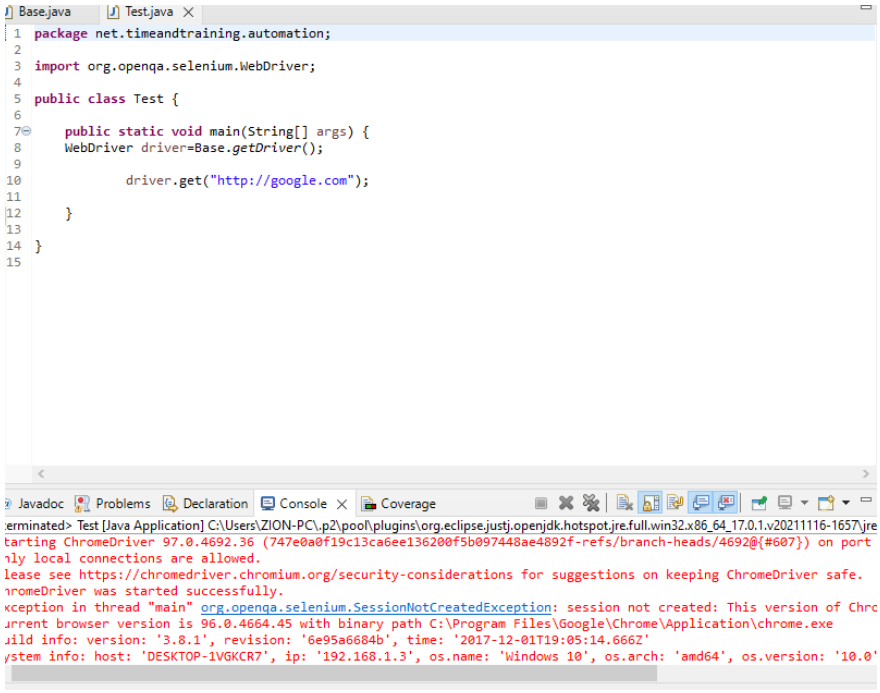

New Java Package
Java Package
Discouraged package name. By convention, package names usually start with a lowercase letter
Creates folders corresponding to packages.
Source folder:
InstallSelenium/src
Browse...
Name:
Selenuim
Create package-info.java
Generate comments (configure templates and default value here)
Finish
Cancel

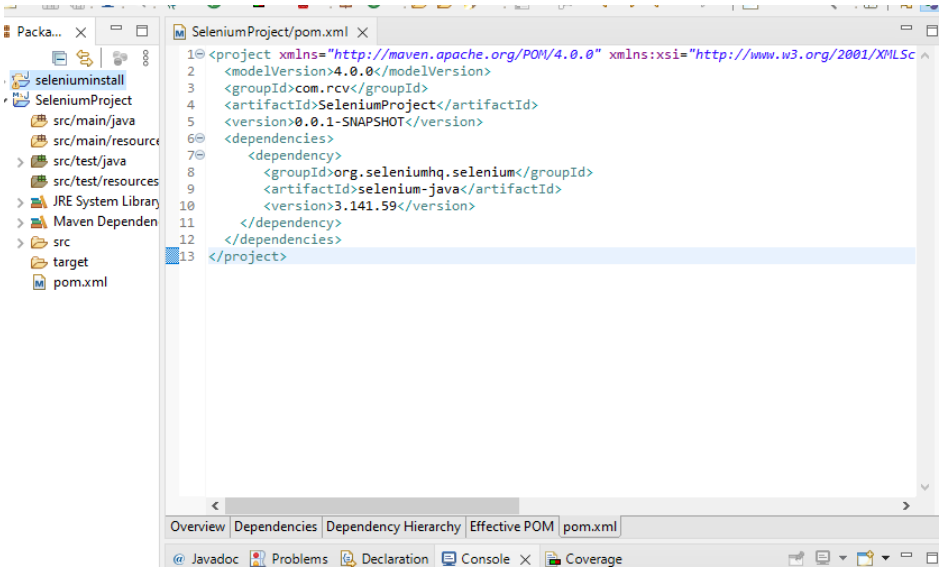

selenium eclipse-workspace - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Package...
InstallSelenium
JRE System Library
src
Problems
Javadoc
Declaration

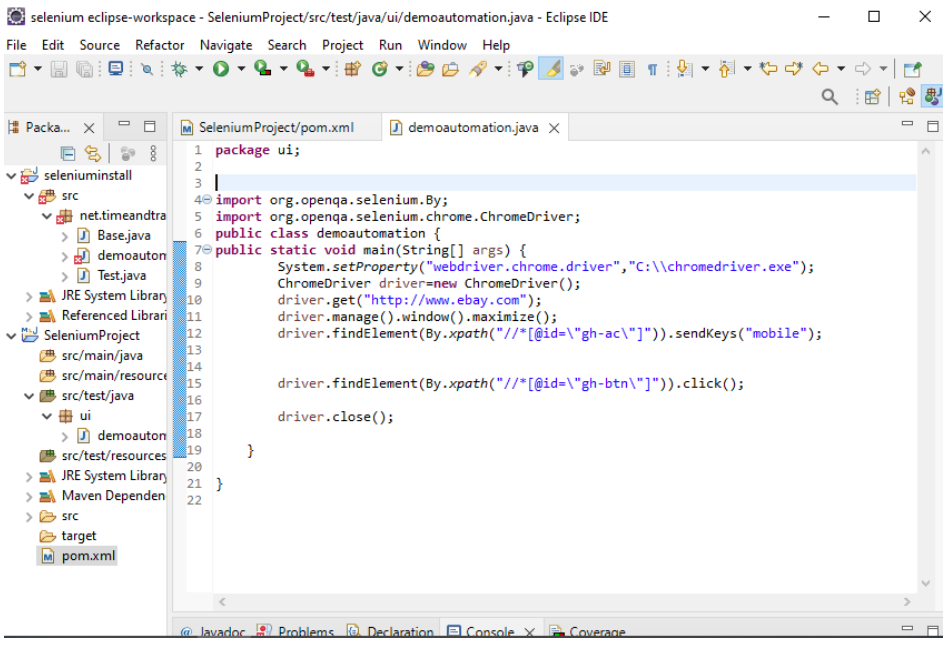

Properties for InstallSelenium
type filter text
Resource
Builders
Coverage
Java Build Path
Java Code Style
Java Compiler
Javadoc Location
Java Editor
Project Facets
Project Natures
Project References
Refactoring History
Run/Debug Settings
Server
Task Repository
Task Tags
Validation
WikiText
Java Build Path
Source
Projects
Libraries
Order and Export
Module Dependencies
JARs and class folders on the build path:
Modulepath
byte-buddy-1.12.1.jar - C:\Users\ZION-PC\Downloads\selenium-java-4.1.0\lib
commons-exec-1.3.jar - C:\Users\ZION-PC\Downloads\selenium-java-4.1.0\lib
guava-31.0.1-jre.jar - C:\Users\ZION-PC\Downloads\selenium-java-4.1.0\lib
selenium-api-4.1.0.jar - C:\Users\ZION-PC\Downloads\selenium-java-4.1.0
selenium-api-4.1.0-sources.jar - C:\Users\ZION-PC\Downloads\selenium-java-4.1.0
selenium-chrome-driver-4.1.0.jar - C:\Users\ZION-PC\Downloads\selenium-java-4.1.0
selenium-chrome-driver-4.1.0-sources.jar - C:\Users\ZION-PC\Downloads\selenium-java-4.1.0
selenium-chromium-driver-4.1.0.jar - C:\Users\ZION-PC\Downloads\selenium-java-4.1.0
selenium-chromium-driver-4.1.0-sources.jar - C:\Users\ZION-PC\Downloads\selenium-java-4.1.0
selenium-devtools-v85-4.1.0.jar - C:\Users\ZION-PC\Downloads\selenium-java-4.1.0
selenium-devtools-v85-4.1.0-sources.jar - C:\Users\ZION-PC\Downloads\selenium-java-4.1.0
selenium-devtools-v94-4.1.0.jar - C:\Users\ZION-PC\Downloads\selenium-java-4.1.0
selenium-devtools-v94-4.1.0-sources.jar - C:\Users\ZION-PC\Downloads\selenium-java-4.1.0
selenium-devtools-v95-4.1.0.jar - C:\Users\ZION-PC\Downloads\selenium-java-4.1.0
selenium-devtools-v95-4.1.0-sources.jar - C:\Users\ZION-PC\Downloads\selenium-java-4.1.0
Add JARs...
Add External JARs...
Add Variable...
Add Library...
Add Class Folder...
Add External Class Fold
Edit...
Remove
Migrate JAR File...
Apply
Apply and Close
Cancel

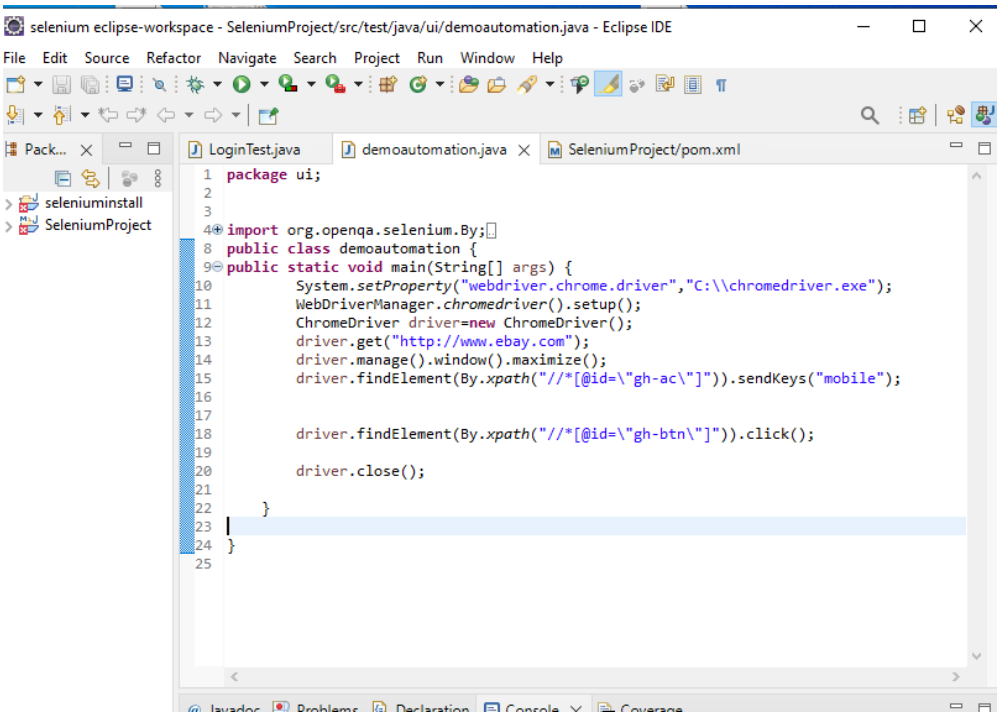

selenium eclipse-workspace - InstallSelenium/src/Selenuim/Firtscript.java - Eclipse IDE
le Edit Source Refactor Navigate Search Project Run Window Help
Package Explorer
Referenced Libraries
byte-buddy-1.12.1.jar -
commons-exec-1.3.jar -
guava-31.0.1-jre.jar - C:
selenium-api-4.1.0.jar -
selenium-api-4.1.0-sou
selenium-chrome-drive
selenium-chrome-drive
selenium-chromium-dr
selenium-chromium-dr
selenium-devtools-v85-
selenium-devtools-v85-
selenium-devtools-v94-
selenium-devtools-v94-
selenium-devtools-v95-
selenium-devtools-v95-
selenium-devtools-v96-
selenium-devtools-v96-
selenium-edge-driver-4
selenium-edge-driver-4
selenium-firefox-driver-
selenium-firefox-driver-
selenium-firefox-xpi-dr
Firtscript.java
1 package Selenuim;
2
3 public class Firtscript {
4
5 public static void main(String[] args) {
6 // TODO Auto-generated method stub
7
8 }
9
10 }
11
Problems
Javadoc
Declaration

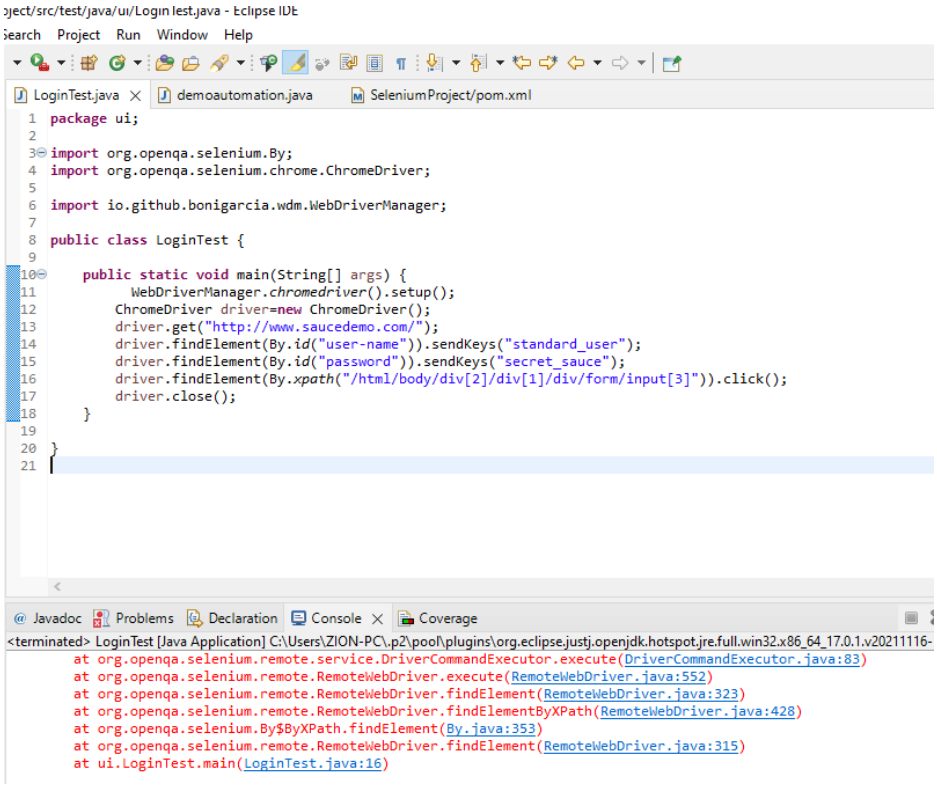

selenium eclipse-workspace - seleniuminstall/src/net/timeandtraining/automation/Base.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Package Explorer
seleniuminstall
src
net.timeandtraining.autom
Base.java
JRE System Library [JavaSE-16
Referenced Libraries
byte-buddy-1.7.5.jar - C:\
client-combined-3.8.1.jar
client-combined-3.8.1-sou
commons-codec-1.10.jar
commons-exec-1.3.jar - C
commons-logging-1.2.jar
gson-2.8.2.jar - C:\Users\Z
guava-23.0.jar - C:\Users\Z
httpclient-4.5.3.jar - C:\Use
httpcore-4.4.6.jar - C:\User
*Base.java
1 package net.timeandtraining.automation;
2
3 import java.util.concurrent.TimeUnit;
4
5 import org.openqa.selenium.WebDriver;
6 import org.openqa.selenium.chrome.ChromeDriver;
7
8 public class Base {
9
10
11 public WebDriver getDriver() {
12 System.setProperty("webdriver.chrome.drive", "C:\\chromedriver.exe");
13 WebDriver driver=new ChromeDriver();
14 driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);
15 return driver;
16
17 }
18
19
20
21 }
22
Problems Javadoc Declaration Console Coverage

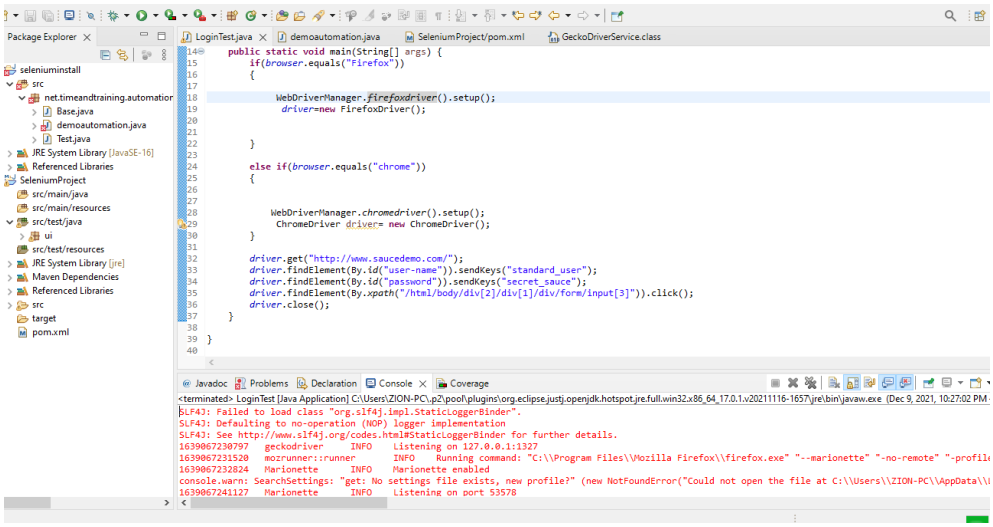

Base.java
Test.java
1 package net.timeandtraining.automation;
2
3 import org.openqa.selenium.WebDriver;
4
5 public class Test {
6
7 public static void main(String[] args) {
8 WebDriver driver=Base.getDriver();
9
10 driver.get("http://google.com");
11
12 }
13
14 }
15
Javadoc Problems Declaration Console Coverage
erminated> Test [Java Application] C:\Users\ZION-PC\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.1.v20211116-1657\jre
tarting ChromeDriver 97.0.4692.36 (747e0a0f19c13ca6ee136200f5b097448ae4892f-refs/branch-heads/4692@{#607}) on port
nly local connections are allowed.
lease see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
hromeDriver was started successfully.
xception in thread "main" org.openqa.selenium.SessionNotCreatedException: session not created: This version of Chro
urrent browser version is 96.0.4664.45 with binary path C:\Program Files\Google\Chrome\Application\chrome.exe
uild info: version: '3.8.1', revision: '6e95a6684b', time: '2017-12-01T19:05:14.666Z'
ystem info: host: 'DESKTOP-1VGKCR7', ip: '192.168.1.3', os.name: 'Windows 10', os.arch: 'amd64', os.version: '10.0'


Packa...
seleniuminstall
SeleniumProject
src/main/java
src/main/resource
src/test/java
src/test/resources
JRE System Library
Maven Dependen
src
target
pom.xml
SeleniumProject/pom.xml
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSc
<modelVersion>4.0.0</modelVersion>
<groupId>com.rcv</groupId>
<artifactId>SeleniumProject</artifactId>
<version>0.0.1-SNAPSHOT</version>
<dependencies>
<dependency>
<groupId>org.seleniumhq.selenium</groupId>
<artifactId>selenium-java</artifactId>
<version>3.141.59</version>
</dependency>
</dependencies>
</project>
Overview
Dependencies
Dependency Hierarchy
Effective POM
pom.xml
Javadoc
Problems
Declaration
Console
Coverage


selenium eclipse-workspace - SeleniumProject/src/test/java/ui/demoautomation.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Packa...
seleniuminstall
src
net.timeandtra
Base.java
demoauton
Test.java
JRE System Library
Referenced Librari
SeleniumProject
src/main/java
src/main/resource
src/test/java
ui
demoauton
src/test/resources
JRE System Library
Maven Dependen
src
target
pom.xml
SeleniumProject/pom.xml
demoautomation.java
package ui;
import org.openqa.selenium.By;
import org.openqa.selenium.chrome.ChromeDriver;
public class demoautomation {
public static void main(String[] args) {
System.setProperty("webdriver.chrome.driver","C:\\chromedriver.exe");
ChromeDriver driver=new ChromeDriver();
driver.get("http://www.ebay.com");
driver.manage().window().maximize();
driver.findElement(By.xpath("//*[@id=\"gh-ac\"]")).sendKeys("mobile");
driver.findElement(By.xpath("//*[@id=\"gh-btn\"]")).click();
driver.close();
}
}
Javadoc
Problems
Declaration
Console
Coverage


selenium eclipse-workspace - SeleniumProject/src/test/java/ui/demoautomation.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
Pack...
seleniuminstall
SeleniumProject
LoginTest.java
demoautomation.java
SeleniumProject/pom.xml
1 package ui;
2
3
4 import org.openqa.selenium.By;
8 public class demoautomation {
9 public static void main(String[] args) {
10 System.setProperty("webdriver.chrome.driver","C:\\chromedriver.exe");
11 WebDriverManager.chromedriver().setup();
12 ChromeDriver driver=new ChromeDriver();
13 driver.get("http://www.ebay.com");
14 driver.manage().window().maximize();
15 driver.findElement(By.xpath("//*[@id=\"gh-ac\"]")).sendKeys("mobile");
16
17
18 driver.findElement(By.xpath("//*[@id=\"gh-btn\"]")).click();
19
20 driver.close();
21
22 }
23
24 }
25


oject/src/test/java/ui/LoginTest.java - Eclipse IDE
Search Project Run Window Help
LoginTest.java
demoautomation.java
SeleniumProject/pom.xml
1 package ui;
2
3 import org.openqa.selenium.By;
4 import org.openqa.selenium.chrome.ChromeDriver;
5
6 import io.github.bonigarcia.wdm.WebDriverManager;
7
8 public class LoginTest {
9
10 public static void main(String[] args) {
11 WebDriverManager.chromedriver().setup();
12 ChromeDriver driver=new ChromeDriver();
13 driver.get("http://www.saucedemo.com/");
14 driver.findElement(By.id("user-name")).sendKeys("standard_user");
15 driver.findElement(By.id("password")).sendKeys("secret_sauce");
16 driver.findElement(By.xpath("/html/body/div[2]/div[1]/div/form/input[3]")).click();
17 driver.close();
18 }
19
20 }
21
Javadoc Problems Declaration Console Coverage
<terminated> LoginTest [Java Application] C:\Users\ZION-PC\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.1.v20211116-
at org.openqa.selenium.remote.service.DriverCommandExecutor.execute(DriverCommandExecutor.java:83)
at org.openqa.selenium.remote.RemoteWebDriver.execute(RemoteWebDriver.java:552)
at org.openqa.selenium.remote.RemoteWebDriver.findElement(RemoteWebDriver.java:323)
at org.openqa.selenium.remote.RemoteWebDriver.findElementByXPath(RemoteWebDriver.java:428)
at org.openqa.selenium.By$ByXPath.findElement(By.java:353)
at org.openqa.selenium.remote.RemoteWebDriver.findElement(RemoteWebDriver.java:315)
at ui.LoginTest.main(LoginTest.java:16)



Selenium testing:

Summary of Selenium testing Selenium is an open-source project that serves as a hub for a variety of tools and frameworks that facilitate browser automation. It offers a playback tool so that functional tests may be created across the majority of current web browsers without the requirement to learn a test scripting language (Selenium IDE). Additionally, it offers a test domain-specific language (Selenese) that enables the writing of tests in a variety of well-known programming languages, such as JavaScript (Node.js), C#, Groovy, Java, Perl, PHP, Python, Ruby, and Scala. Windows, Linux, and macOS all support Selenium. Under the terms of the Apache License 2.0, it is open-source software. This is a great way to test software. In our case, we configure selenium with C# language. C# is useful for automation testing because it allows the automation test engineer to develop an application with the help of Visual Studio on the .Net framework. First, we install the IDE of the C# programming language and which is Visual Studio. Then we create a console-based new project. Then we install the selenium web driver and selenium chrome web driver. Then we do an automation test of our C# project's login page with the selenium testing tool. After completing the code we run the test and it passed. Then we can see that on the login page there is a message that comes success denied and our automation testing is completed.

The most widely used freeware and open source automation tool is Selenium. Selenium has a lot of advantages when it comes to test automation. It also allows for recording and playback for testing web applications, as well as the execution of numerous scripts across multiple browsers. Selenium is a freeware and portable application. Java, Perl, Python, C#, Ruby, Groovy, JavaScript, and other languages are supported by Selenium. It has its own script, yet it is not constrained by it. Testers are free to use any language they are familiar with Selenium.