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**Practical 1**

**Aim:** **Install Selenium IDE: write a test suite containing minimum 4 test cases for different formats.**

**Description:**

**Installation of Selenium IDE**

1. Launch Mozilla Firefox Browser
2. Type URL https://www.seleniumhq.org/download/

OR

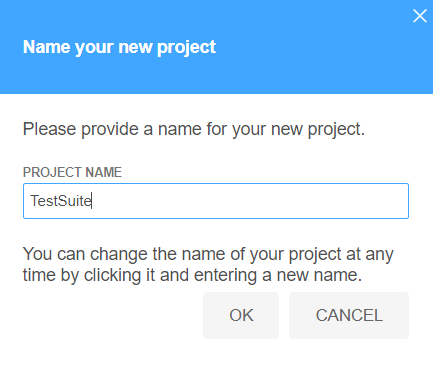
1. https://addons.mozilla.org/en-US/firefox/addon/selenium-ide
2. Selenium IDE Add-ons page will get open then Click on Add to Firefox button
3. Firefox will show one popup saying do you want to allow Mozilla Firefox to install Selenium IDE Add-ons or not. Click on Install button.
4. Firefox will automatically install Selenium IDE software. After the installation is completed, a pop up window appears asking to re-start the Firefox. Click on the "Restart Now" button to reflect the Selenium IDE installation.Click on Restart Now button
5. On clicking on the Restart Now button, Firefox will restart automatically. In case you missed the pop-up, simply close the Firefox and launch again.
6. Once the Firefox booted and started again, we can see selenium IDE under the tools menu list. Selenium IDEicon will be displayed in the Firefox toolbar

**Testing Websites**

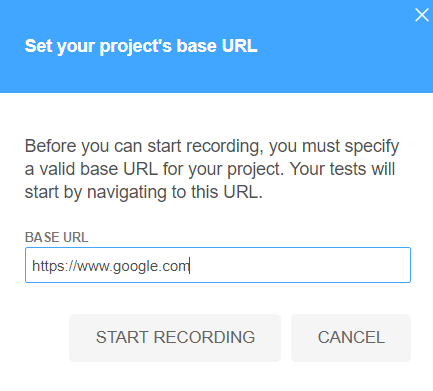
1. Launch Selenium IDE, after launching a pop up appears like shown below, select “Record a new test in a new project”



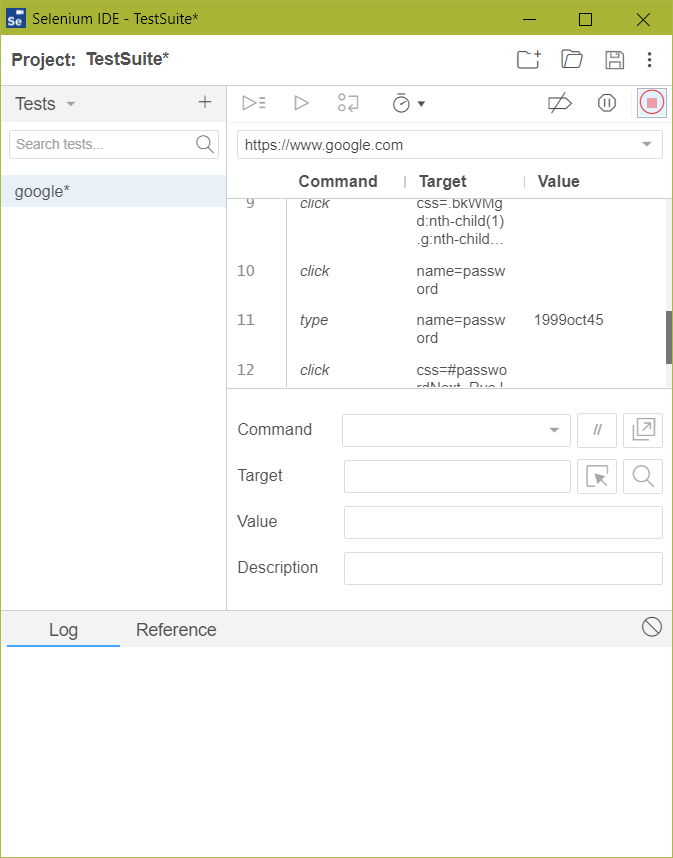
1. Enter name of the project, click on “OK”



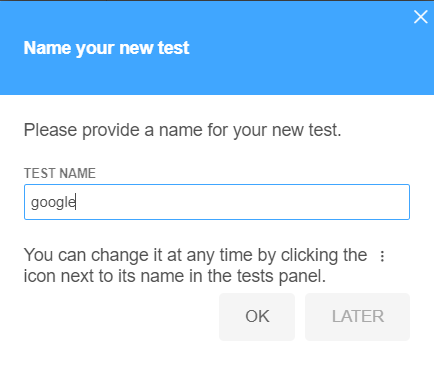
1. Enter Base URL for your project, and click on “START RECORDING”



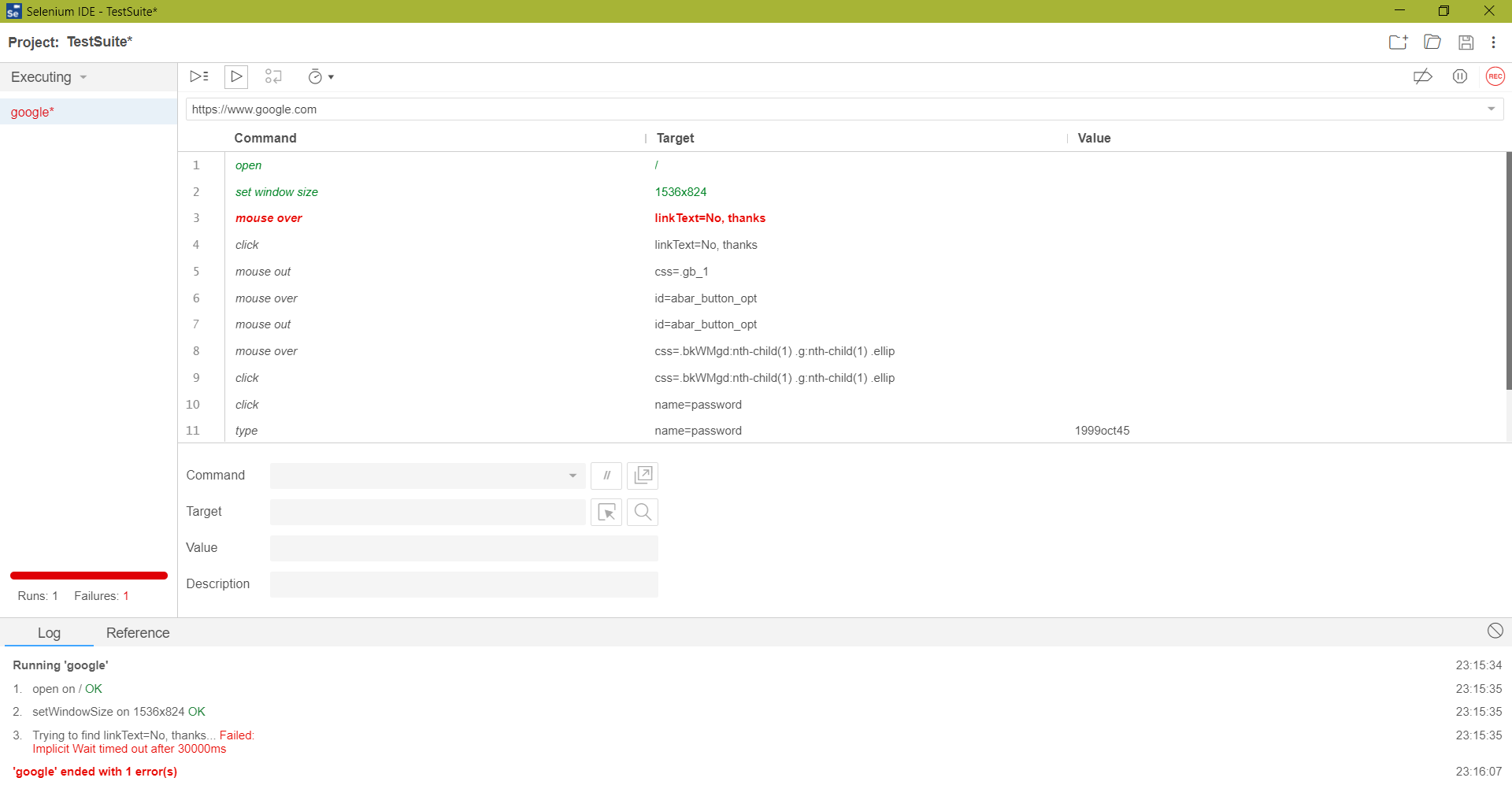
1. Once you click on “START RECORDING” browser will open the Base URL you supplied( “https://www.google.com”). Record your operations over the specified website once you have performed all the operations then open Selenium IDE window and click on stop recording icon



1. Once you click on stop recording icon a pop as shown below will ask for test name. Provide test name and click on “OK”



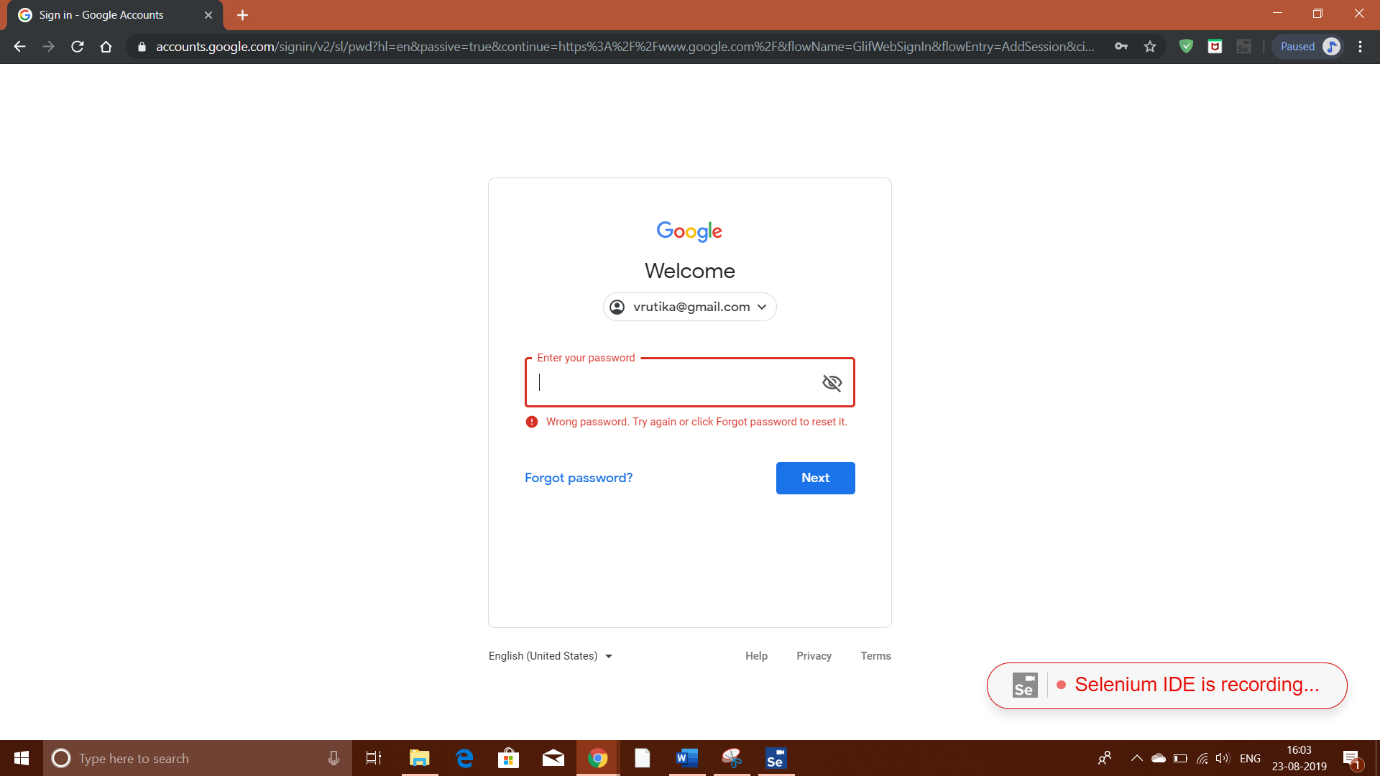
1. Once saved you can run your test again. To run the test again click on “Run Current Test” icon



your test will run in the browser

1. Repeat the above steps with three more websites
   1. https://www.facebook.com
   2. https://www.twitter.com
   3. https://www.instagram.com

**Output:**

****

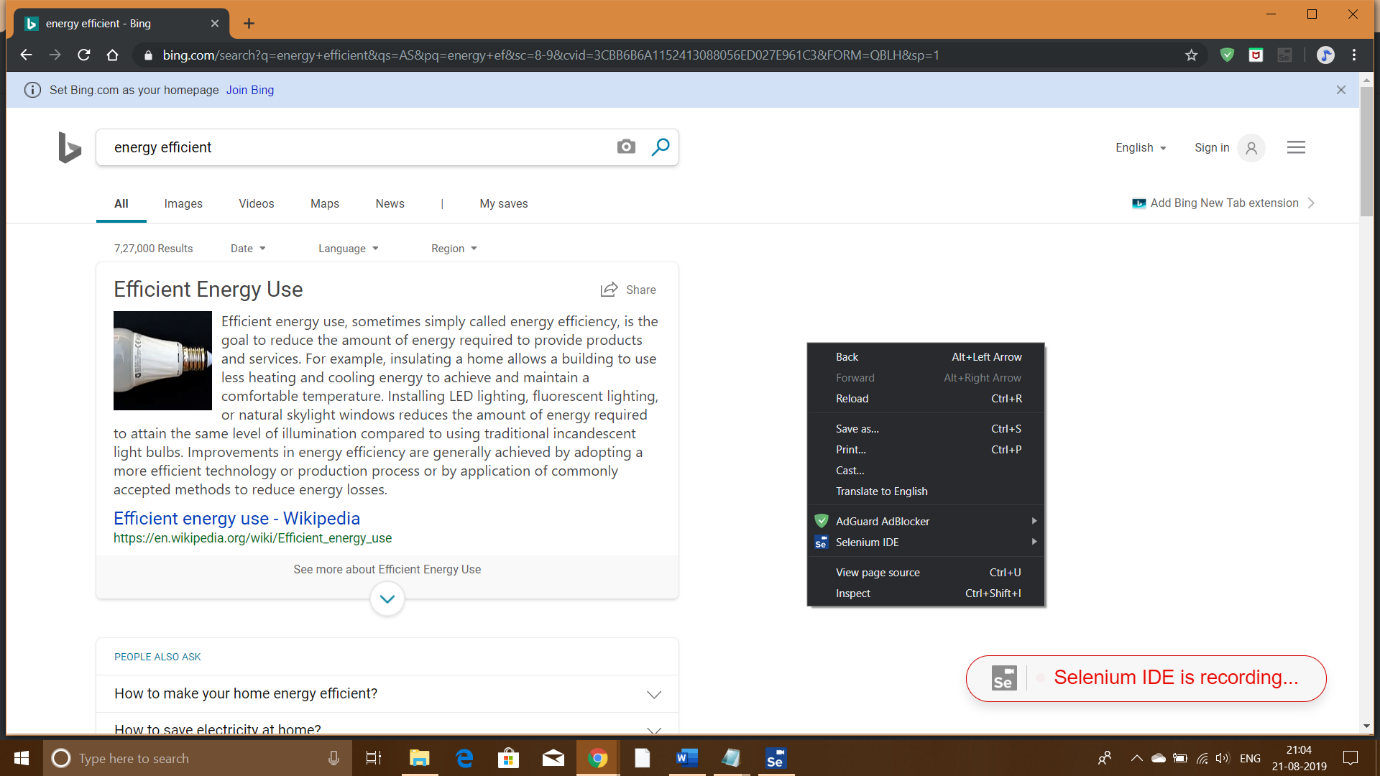
**Practical 2**

**Aim: Conduct a test suite for any two websites.**

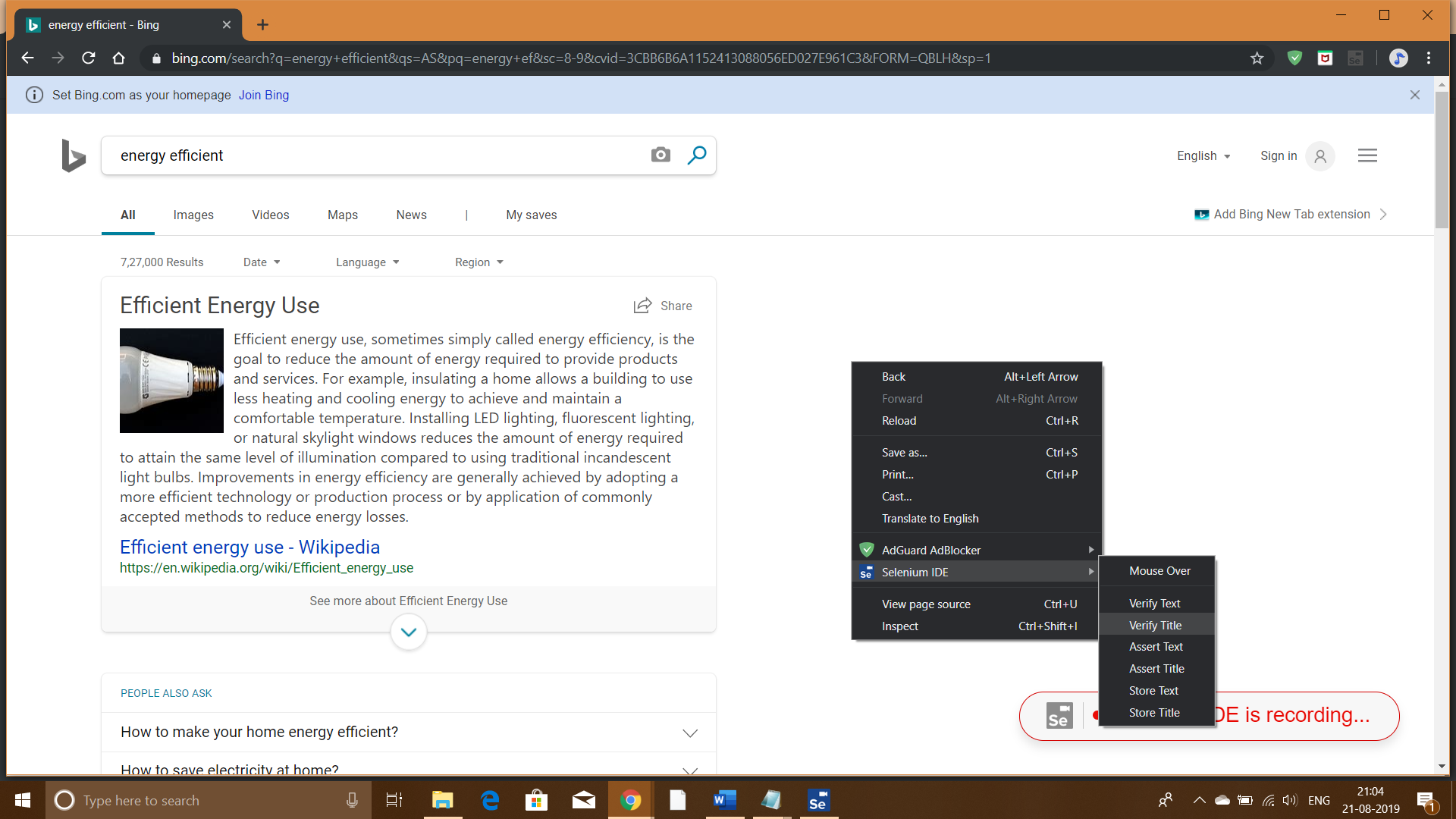
**Description:**

**Steps to Create Test Case:**

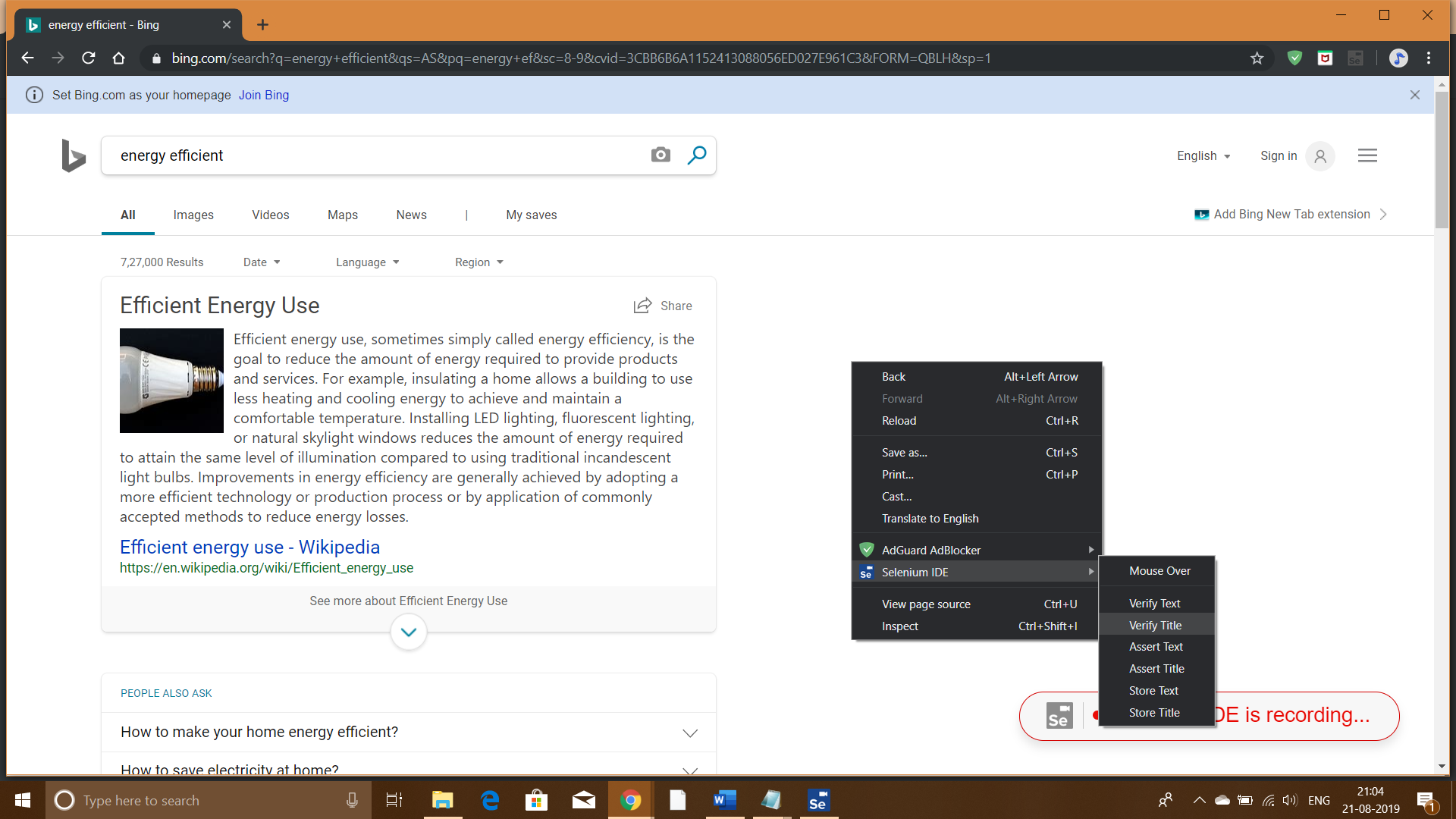
1. Open (Example: Type www.google.com)
2. Type "energy efficient" in the Google Search Input Box
3. Right Click outside on an empty spot
4. Select Selenium IDE



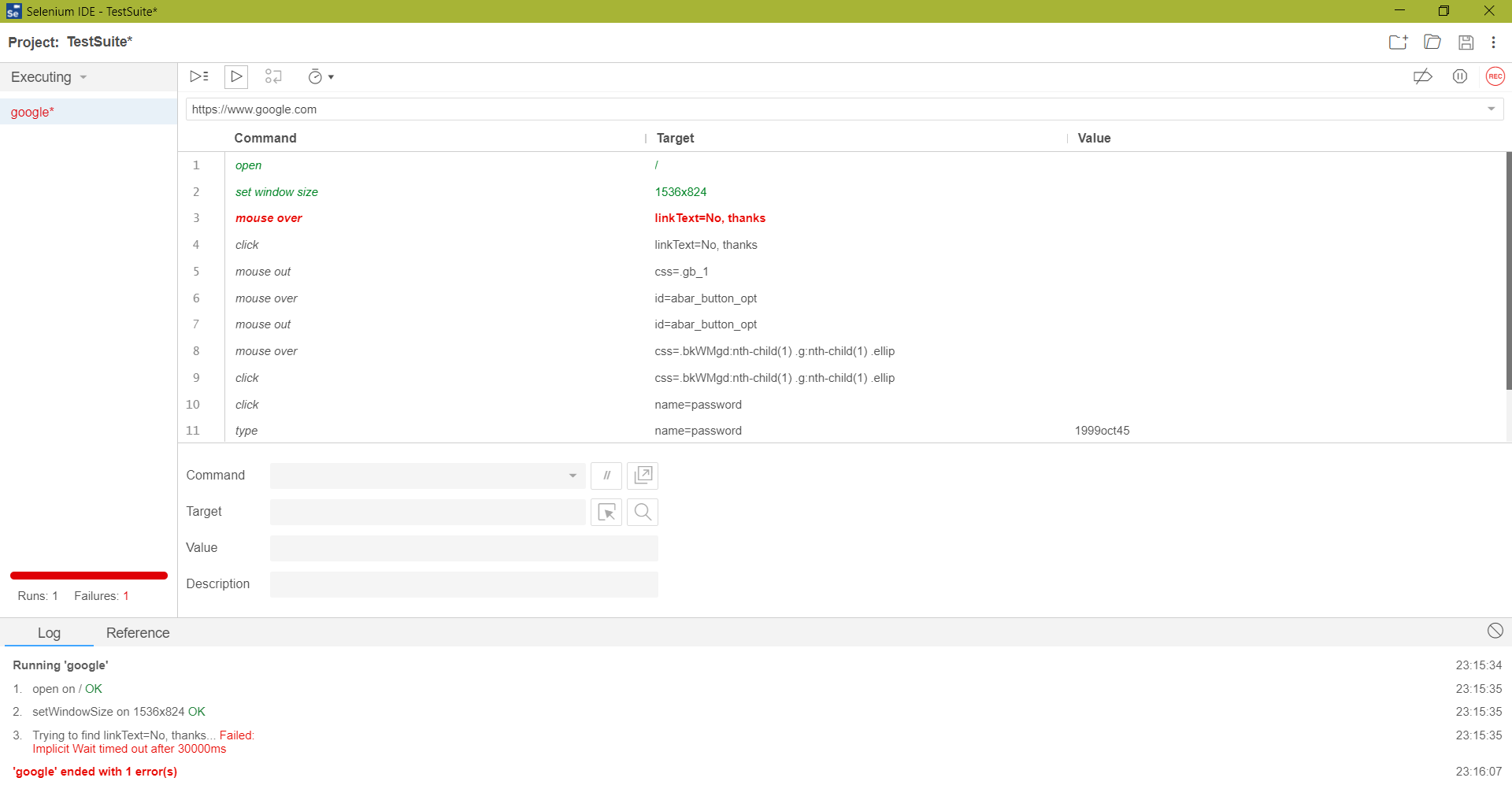
1. Verify the Text Present as "energy efficient"



1. Assert the Title

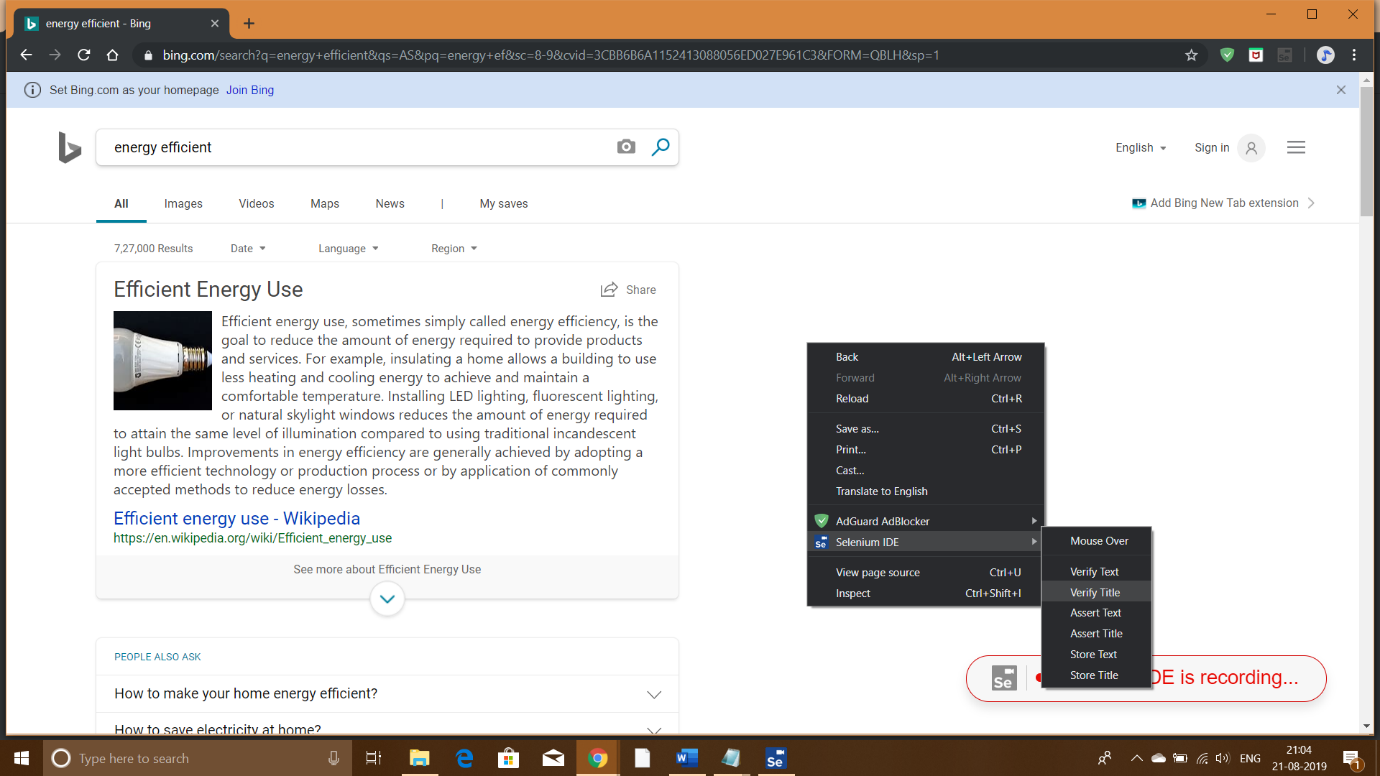


1. Stop the recording
2. Run the test suite, To run the test again click on “Run Current Test” icon



1. Repeat the above process with another search engine, for example, www.bing.com

**Output:**

****

**Practical 3**

**Aim: Install Selenium server and demonstrate it using a script in Java/PHP.**

**Description:**

1. Download Selenium server: http:/scleniumhq.org/download/
2. Download Selenium Client driver for Java (from Selenium Client Drivers section)
3. Open Chrome and type “java jdk” in search bar
4. Click on Java SE - Downloads | Oracle Technology Network >> Download >> Accept license for JDK 12.0.2 >> jdk-12.0.2\_windows-x64\_bin.exe
5. Open File Explorer and open the following folder C:\jdk-12.0.2\bin and copy the address from address bar
6. Open Control Panel Click on System and Security >> System >> Advanced System Settings >> Environmental Variables >> System Variables >> Path >> Edit >> New >> Paste the copied address >> OK >> OK >> OK
7. Open cmd and execute following commands
   1. java -version
   2. javac
8. Open Chrome and type “Eclipse” in search bar
9. Click on Eclipse Downloads | The Eclipse Foundation >> Download 64-bit >> Download
10. Once downloaded, open Eclipes Installer. Click on icon >> Update >> Accept >> OK
11. Select Eclipse IDE for Java Developers >> Install >> Accept now >> Accept >> Select All >> Accept >> Launch. This should open a welcome screen.
12. Close welcome screen tab and Click on File >> New >> Java Project >> Name your project >> Finish.
13. Once you create a Java project a Package Explorer should open on Left side of the window. Click on src >> New >> Class >> Provide a class name >> check public static void main(String [] args) >> Finish.
14. Once you create a java class type the source code and run application

**Source Code:**

import java.io.BufferedReader;

import java.io.IOException;

import java.io.InputStreamReader;

public class operation {

public static void main(String[] args) throws IOException {

int a, b, c;

BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

System.out.println("Enter a number: ");

a = Integer.parseInt(br.readLine());

System.out.println("Enter a number: ");

b = Integer.parseInt(br.readLine());

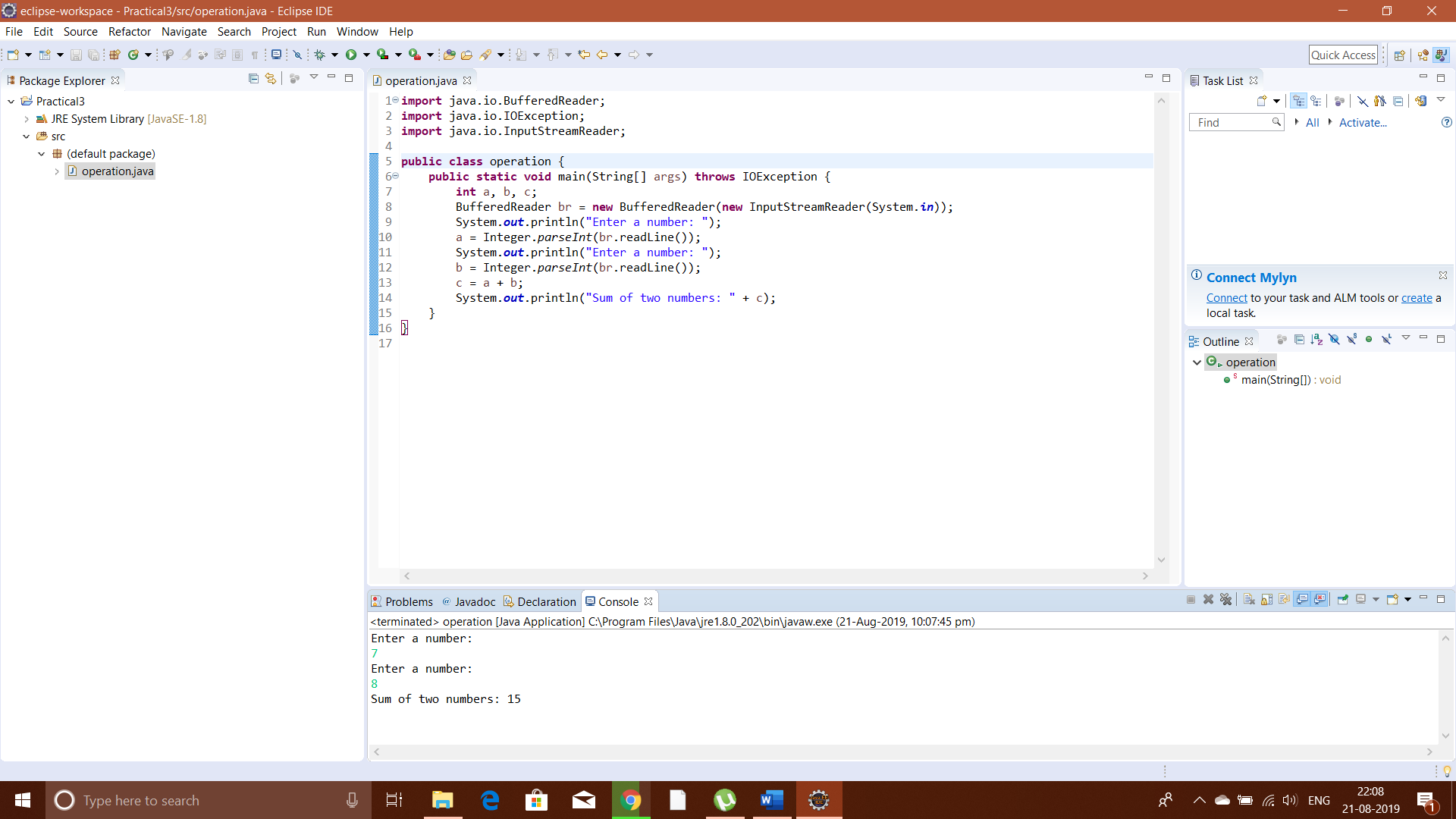
c = a + b;

System.out.println("Sum of two numbers: " + c);

}

}

**Output:**

****

**Practical 4**

**Aim: Write and test a program to login a specific web page.**

**Description:**

**Installing Window Builder in Eclipse**

1. Open Eclipse IDE
2. Go to Help menu
3. Select Install New Software >> Click on Drop Down List >> Select http://download.eclipse.org/releases/long >> Select “General Purpose Tools” >> Select the packages from Swing Designer upto Windows Builder >> Click on “Next” >> Click on “Next” >> Select license agreement >> Click “Finish”.
4. Then it will ask you to restart Eclipse Click on “Yes”

**Steps to Create a Login page**

1. Open Eclipse IDE
2. Go to File menu >> New >> Java Project >> Name your project >> Next >> Finish
3. Once you create a Java project a Package Explorer should open on Left side of the window. Click on src >> New >> others >> Windows Builder >> Swing Designer >> Application Window >> Next >> Name Application Window >> Finish.
4. Go to Design view. Select Absolute layout and drop it on the Frame >> Select JLabel and drop it on Frame >> Change its text property to Username >> Select JLabel and drop it on Frame >> Change its text property to Password >> Select JTextField and drop it on frame >> Change its Variable Name to uname >> Select JTextField and drop it on frame >> Change its Variable Name to pass
5. Now Select a JButton and drop it on Frame >> Change its text property to Login >> Right Click on JButton >> Add event handler >> action >> actionPerformed
6. Type the source code and Run the application.

**Source Code:**

public void actionPerformed(ActionEvent arg0)

{

String uname= textField.getText();

String pwd=passwordField.getText();

if(uname.equals("Username") && pwd.equals("Password"))

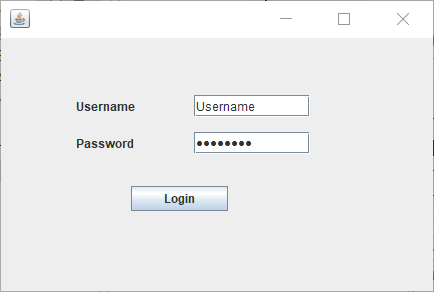
JOptionPane.showMessageDialog(frame, "You are Logged in");

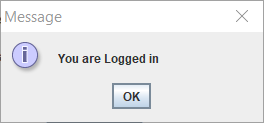
else

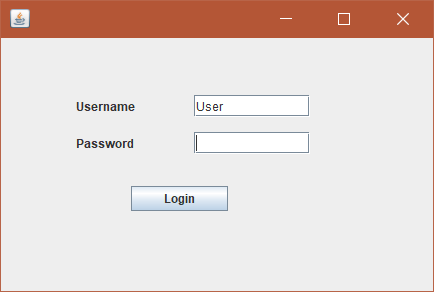
JOptionPane.showMessageDialog(frame, "Invalid Username or Password");

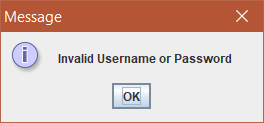
}

**Output:**

****

****

****

****

**Practical 5**

**Aim: Write and test program to update 5 students records into table into Excel file.**

**Description:**

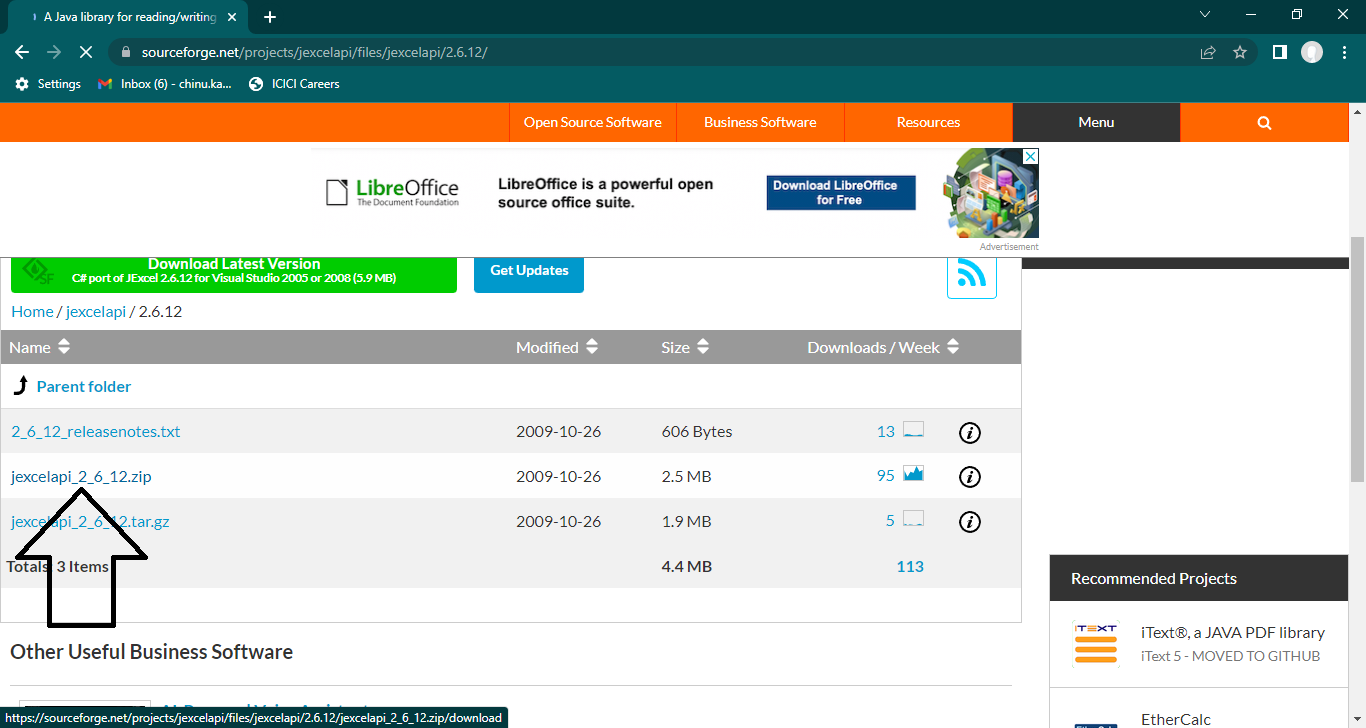
**JXL – Java Excel API**

JXL API (a.k.a. Java Excel API) allows users to read, write, create, and modify sheets in an Excel(.xls) workbook at runtime. It doesn't support .xlsx format.

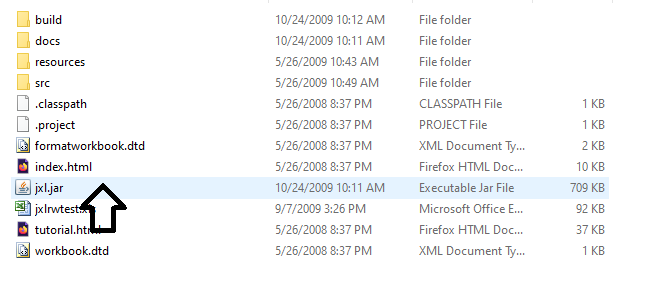
JXL API supports Excel documents with versions Excel 95, 97, 2000, XP, and 2003. These documents hold the extension .xls.

JXL API is widely used with Selenium.

Below is the steps to integrate the JXL jar file:  
1. Download the JXL jar file from below location:  
<http://sourceforge.net/projects/jexcelapi/files/jexcelapi/2.6.12/>







2. Add the downloaded JXL jar file into Eclipse project. Below are the steps:  
 1. Right click on project.  
 2. Click Build Path>Configure Build Path>  
 3. CLick on Libraries from Java Build Path section.  
 4. Click on Add External Jars  
 5. Select the downloaded JXL jar file and click on the OK.

**Source Code:**

**import** java.io.File;

**import** java.io.IOException;

**import** jxl.Workbook;

**import** jxl.write.Label;

**import** jxl.write.WritableSheet;

**import** jxl.write.WritableWorkbook;

**import** jxl.write.WriteException;

**import** jxl.write.biff.RowsExceededException;

**public** **class** WriteDemo {

**public** **static** **void** main(String[] args) **throws** IOException, RowsExceededException, WriteException {

File file = **new** File("C:\\Users\\RJC 1\\Desktop\\Student1.xls");

WritableWorkbook wb = Workbook.*createWorkbook*(file);

WritableSheet sht = wb.createSheet("data", 0);

Label ll = **new** Label(0, 0, "Result");

sht.addCell(ll);

sht.addCell(**new** Label(0, 1, "Pass"));

sht.addCell(**new** Label(0, 2, "Fail"));

wb.write();

wb.close();

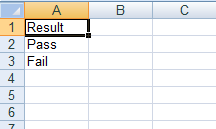
System.***out***.println("Workbook is created");

}

}

**Output:**

**Console Output:** Workbook is created

**Excel Sheet Created:** ****

**Practical 6**

**Aim: Write and test a program to read data from an Excel file.**

**Source code: import** java.io.FileInputStream;

**import** java.io.FileNotFoundException;

**import** java.io.IOException;

**import** jxl.Sheet;

**import** jxl.Workbook;

**import** jxl.read.biff.BiffException;

**public** **class** ReadSelenium {

**public** **static** **void** main(String[] args) **throws** BiffException, IOException {

FileInputStream fileinputstream = **new** FileInputStream("C:\\Users\\RJC 1\\Desktop\\Student.xls"); //FileInputStream is a Java IO class

Workbook w = Workbook.*getWorkbook*(fileinputstream); // Workbook is JXL class

Sheet sheet = w.getSheet(0); // Sheet is JXL class. Here we can give the index number or sheet name. Index number of excel sheet by default starts from 0.

**int** row\_count = sheet.getRows(); // Count total number of rows in excel sheet

**int** col\_count = sheet.getColumns(); // Count total number of columns in excel sheet

**for** (**int** i=0;i<row\_count;i++)

{

**for** (**int** j=0;j<col\_count;j++)

{

String text= sheet.getCell(j, i).getContents(); // j indicates the column and i indicates the row

System.***out***.println(text);

}

}

}

}

Output: 28

ABC

26

XYZ

30

PQR

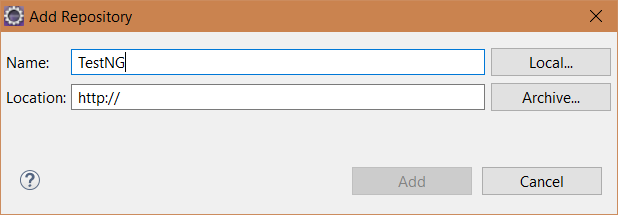
**Practical 08**

**Aim:****TestNG installation for TestNG based practicals.**

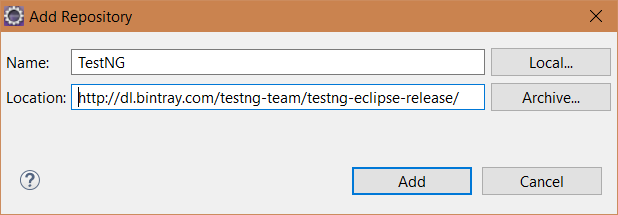
**Description:**

**Steps to Install TestNG:**

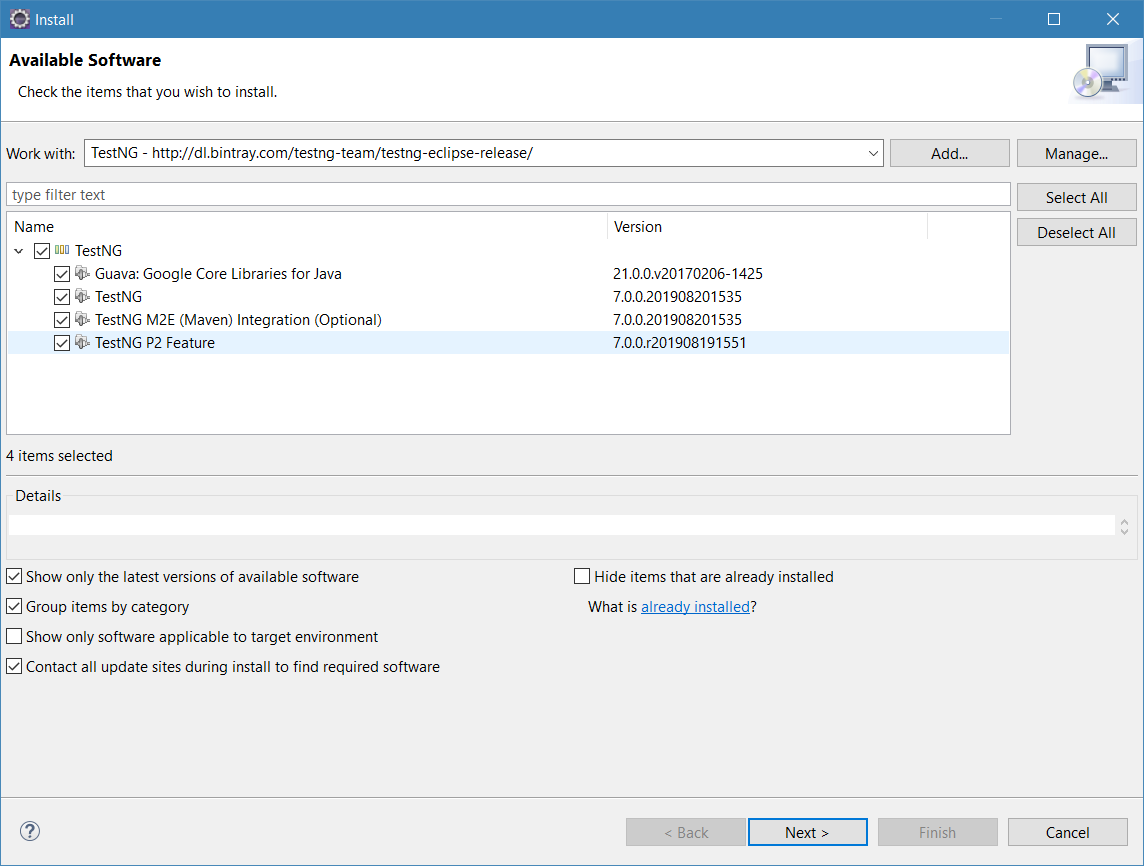
1. Open Eclipse
2. Go to Help menu >> Install New Software >> Click on Add >> Add Repository dialogue box and Provide name as “TestNG”



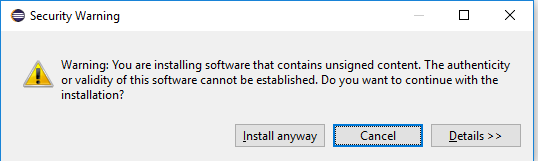
1. For Location URL:
   1. Open Chrome
   2. Type “https://testng.org/doc/download.html” in search bar
   3. In “section Install from update” Click on link <https://beust.com/eclipse.> and copy the URL
   4. Paste the URL in textbox for Location and Click on “Add”



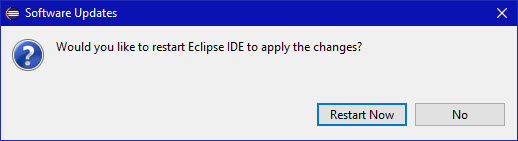
1. After adding Repository select the “TestNG” package and Click on “Next”



1. Click on Next >> Accept Lisence >> Next >> Finish
2. A pop up will ask if you want to install an unsigned software. Click on “Install Anyway”

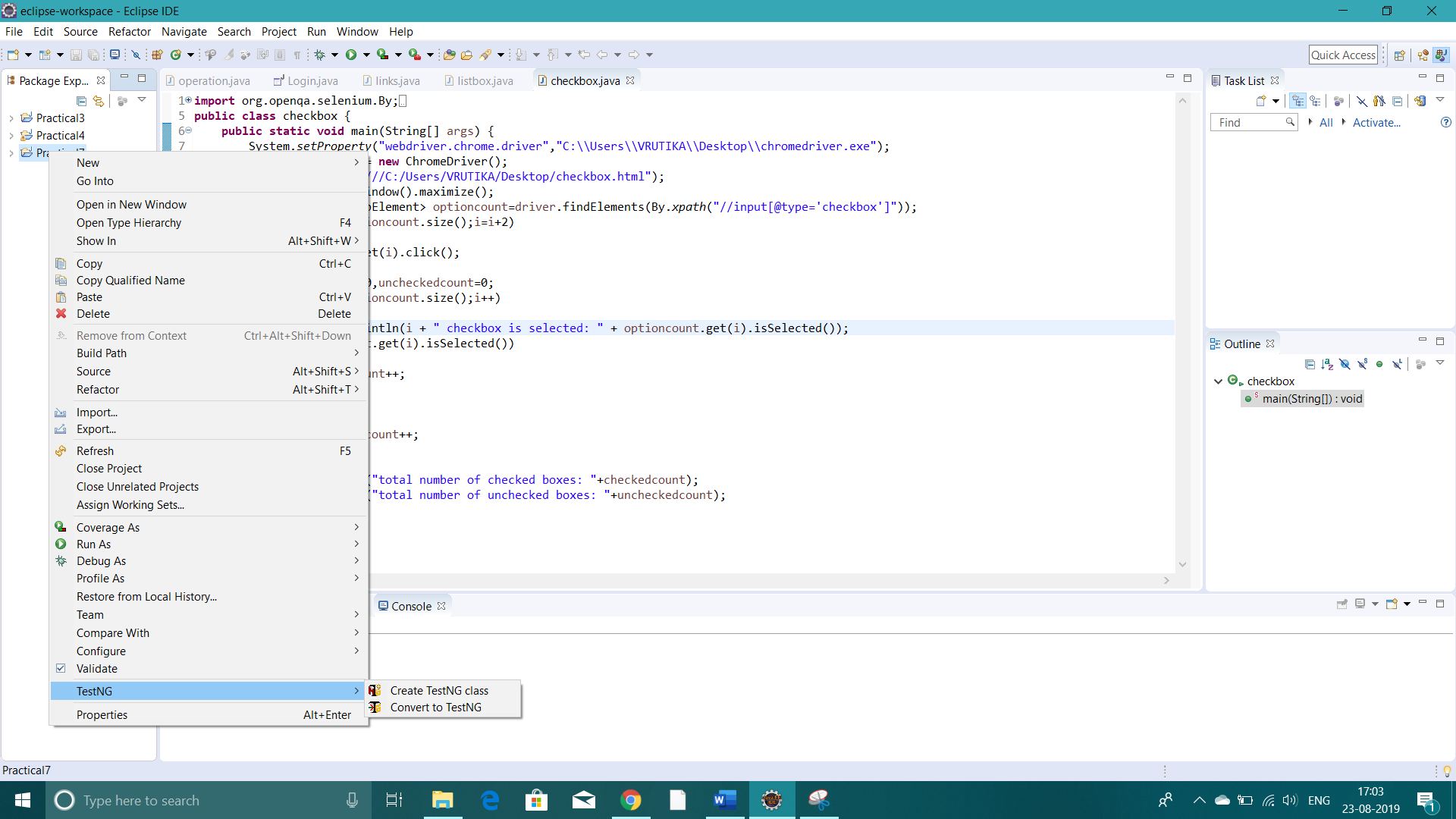


1. Once TestNG is installed a pop will appear asking you to restart Eclipse IDE. Click on “Restart Now”



**Output:**

**To check whether TestNG is installed or not:**

****