

**Deccan Education Society's
Kirti M. Doongursee College of Arts, Science and Commerce
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T.Y.B.Sc. [Computer Science]

Practical Journal

USCS503 : Software Testing and Quality Assurance

Seat Number [29]

Department of Computer Science and Information Technology

Name:- Vishnu Abhayraj Jaiswal Roll no:- 29 subject:- Software Testing practical
Department of Computer Science and Information Technology
Deccan Education Society's
Kirti M. Doongursee College of Arts, Science and Commerce
[NAAC Accredited: "A Grade"]

C E R T I F I C A T E

This is to certify that Mr. **Vishnu Abhayraj Jaiswal**

of T.Y.B.Sc. (Computer Science) with Seat **No.29** has completed **10** Practicals of
Paper- **USCS503 : Software Testing and Quality Assurance** under my supervision
in this College during the year **2022-2023**.

Lecturer-In-Charge

H.O.D.

**Department of
Computer Science & IT**

Date: / /2022

Date:

Examined by:

Remarks:

Date:

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| USCS503 : Software Testing and Quality Assurance | | | | |
|---|---------|---|-------------|-----------|
| Sr. No. | Date | Title | Page No. | Signature |
| 1 | 7/7/22 | Practical No. 1: Installation of Selenium IDE | | |
| 2 | 7/7/22 | Practical No. 2: Conduct a test suite for any two web sites. | | |
| 3 | 13/7/22 | Practical No. 3: I. Opening chrome from Eclipse using selenium II. Search Selenium tutorial in google through code. III. Login into Facebook Account using Selenium. | | |
| 4 | 19/7/22 | Practical No. 4: Write and test the calculator program using JUnit. | | |
| 5 | 28/7/22 | Practical No. 5: Write and test a program to update 6 students records into Excel file (using TestNG) | | |
| 6 | 5/8/22 | Practical No. 6: Write & test a program to select the number of students who have scored more than 60 in any one subject (or all subjects) using TestNG. | | |
| 7 | 18/8/22 | Practical No. 7: Write and test a program to provide total numbers of objects present / available on the page. | | |
| 8 | 18/8/22 | Practical No. 8: Write and test a program to print total numbers of single drop down list items present / available on the page and print selected item. | | |
| 9 | 25/8/22 | Practical No. 9: Write and test a program to print total numbers of Multiple drop down list items present / available on the page and print selected item. | | |
| 10 | 25/8/22 | Practical No. 10: Write and test a program to print total numbers of check boxes present / available on the page and print selected check box. | | |

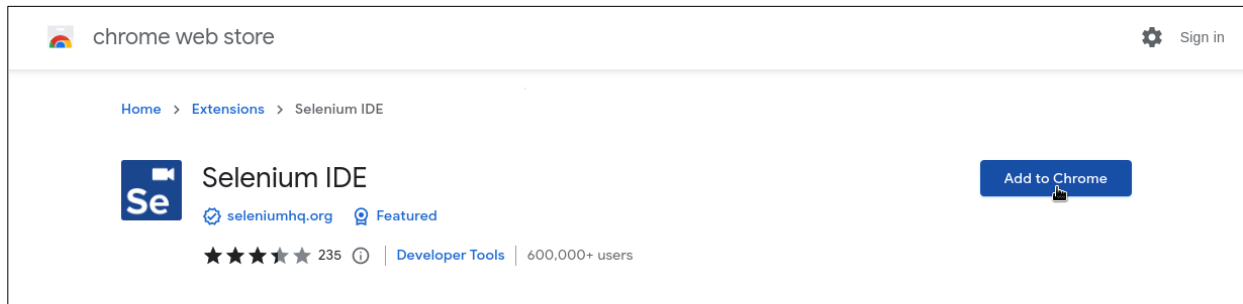
Name:- Vishnu Abhayraj Jaiswal Roll no:- 29 subject:- Software Testing practical

Practical No. 1:

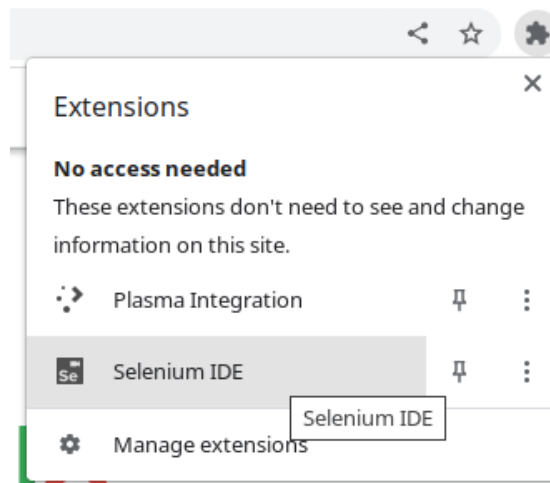
Installation of Selenium IDE:

NOTE: In this practical I will be using chrome browser

1. Open Chrome Browser and type selenium.dev
2. Scroll down you will find Selenium IDE click on read more and click on CHROME DOWNLOAD.
3. This will launch Chrome Web Store click on Add to Chrome.



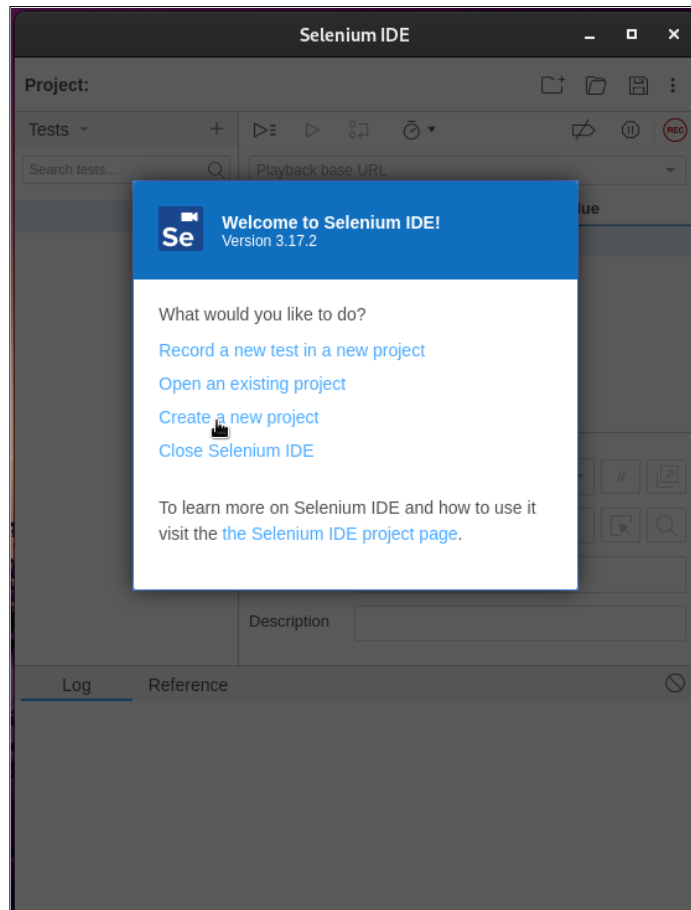
4. Once done adding Selenium IDE extensions click on icon to launch it on top right corner.



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Practical No. 2:

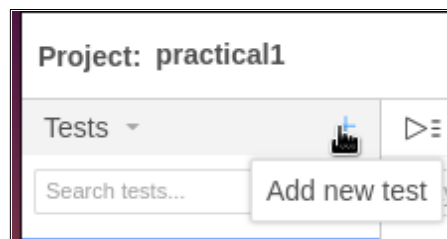
Conduct a test suite for any two web sites.:

1. Select "Create a new project" in Selenium IDE



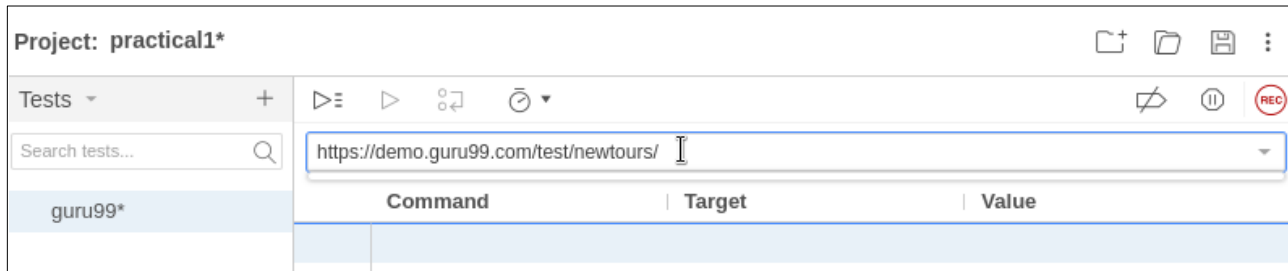
2. Type appropriate Project Name and click on ok

3. Create New Test Case by clicking on the + button.

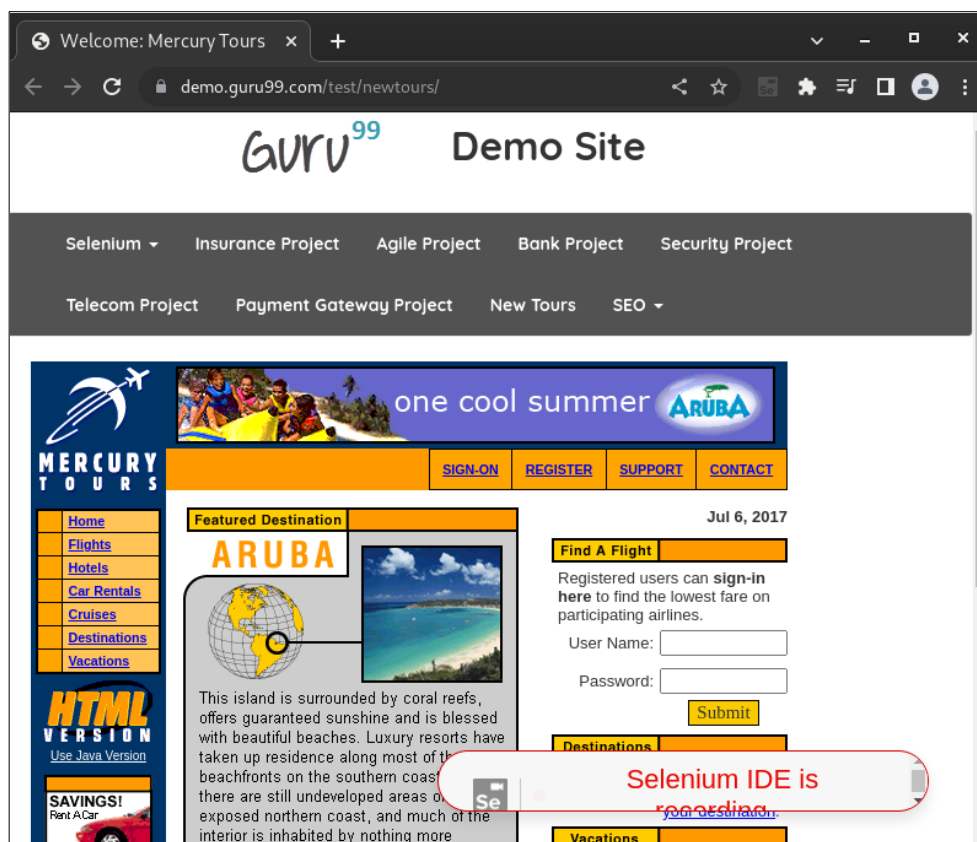


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Test Case 1: <https://demo.guru99.com/test/newtours/>

1. set <https://demo.guru99.com/test/newtours/> as Playback base URL



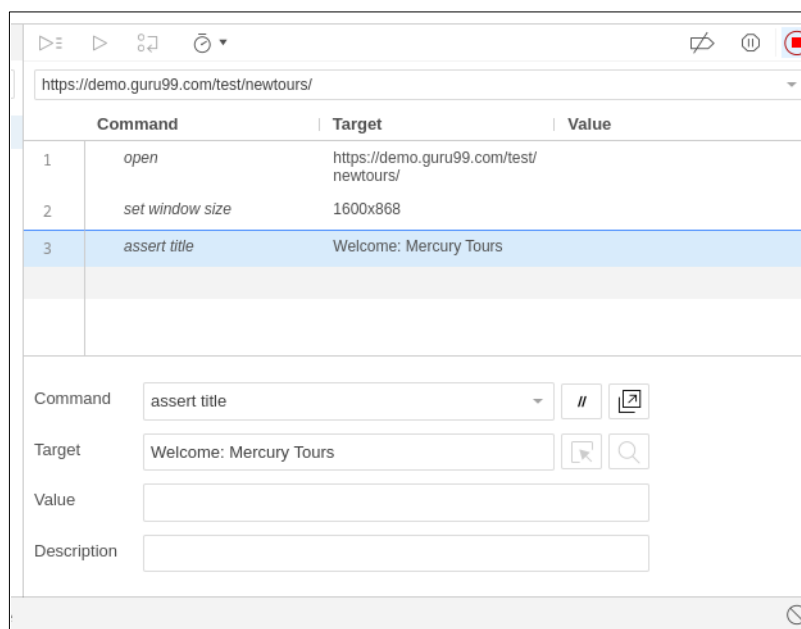
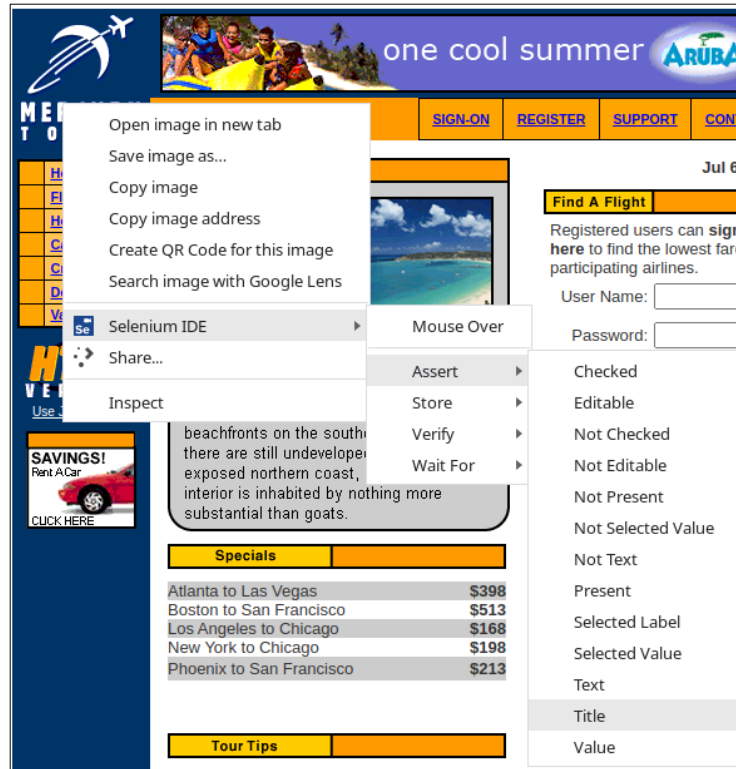
1. Then click on REC (red button) on top right corner.
2. This will Launch Chrome browser with site Entered in Base URL. With Selenium IDE is recording message on mid bottom right corner.



3. Right click on any blank space within the page, like on the Mercury Tours logo on the upper left corner. This will bring up the Selenium IDE context menu.

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4. Then hover on Assert and then select Title on selenium IDE new entries will be added as assert title **Welcome: Mercury Tours**. This is the command that makes sure that the page title is correct.



5. Now, In the "User Name" text box of Mercury Tours, type an invalid username, "invalidUNN". In the "Password" text box, type an invalid password, "invalidPWD"

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Find A Flight

Registered users can **sign-in here** to find the lowest fare on participating airlines.

User Name:

Password:

Submit

Destinations

Find detailed information about [your destination](#)

Selenium IDE is recording

[featured vacation destinations.](#)

6. Click on “Submit” button. Chrome browser should take you to another page.

MERCURY TOURS

one cool summer **ARUBA**

SIGN-OFF **REGISTER** **SUPPORT** **CONTACT**

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Car Rentals
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Destinations
Vacations

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Rent A Car
[CLICK HERE](#)

Login Successfully
Thank you for Login.

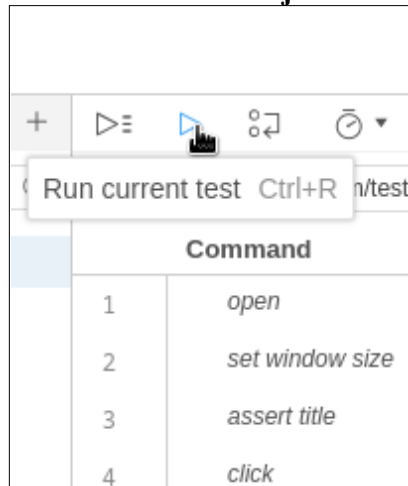
© 2005, Mercury Interactive (v. 011003-1.01-058)

Selenium IDE is recording

7. Click on the Record button to stop recording.

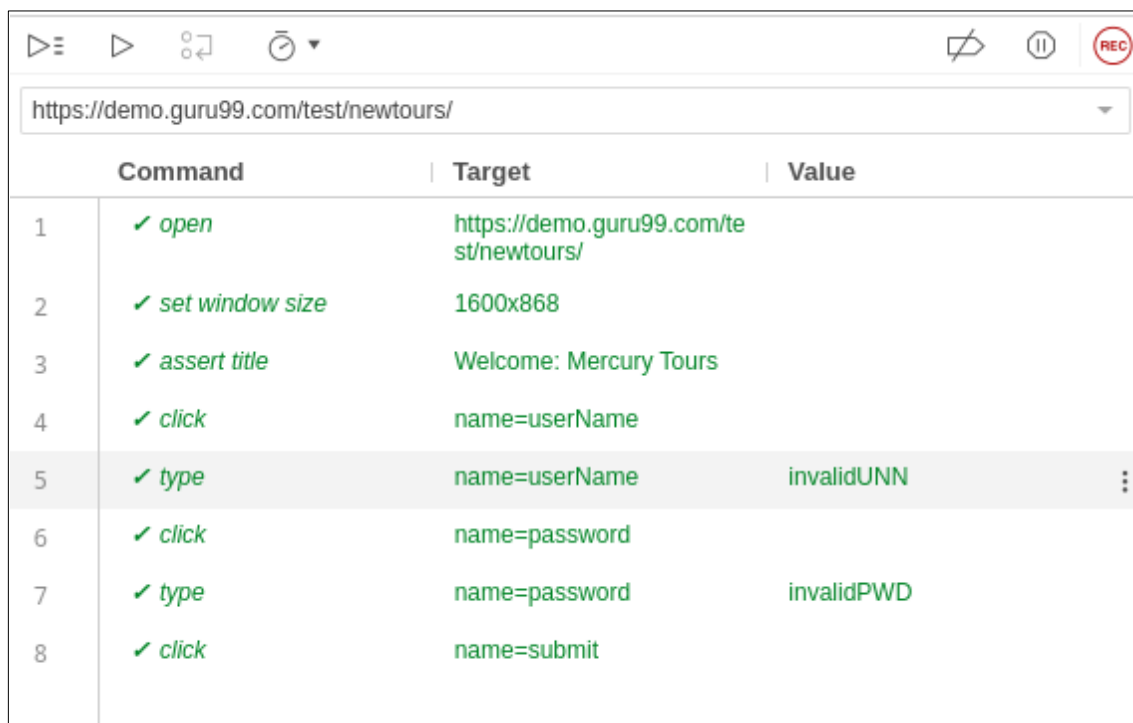
8. Now, click on the Playback button to execute the whole script. Selenium IDE should be able to replicate everything properly.

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A screenshot of the Selenium IDE interface. A tooltip with the text 'Run current test Ctrl+R' is visible over the toolbar. Below the toolbar, a table lists four commands:

| | Command |
|---|-----------------|
| 1 | open |
| 2 | set window size |
| 3 | assert title |
| 4 | click |



A screenshot of the Selenium IDE interface showing a test execution log. The address bar displays 'https://demo.guru99.com/test/newtours/'. The log table contains 8 rows of test steps, with the 5th and 7th rows highlighted in grey to indicate failures.

| | Command | Target | Value |
|---|-------------------|--|------------|
| 1 | ✓ open | https://demo.guru99.com/test/newtours/ | |
| 2 | ✓ set window size | 1600x868 | |
| 3 | ✓ assert title | Welcome: Mercury Tours | |
| 4 | ✓ click | name=username | |
| 5 | ✓ type | name=username | invalidUNN |
| 6 | ✓ click | name=password | |
| 7 | ✓ type | name=password | invalidPWD |
| 8 | ✓ click | name=submit | |

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Test Case 2: <https://www.google.co.in/>

1. Type “energy efficient” in the Google Search Input Box.
2. Right click outside on an empty spot and select assets > Title.
3. Right click on Search Button verify the text present as “energy efficient”
4. Save the Test case

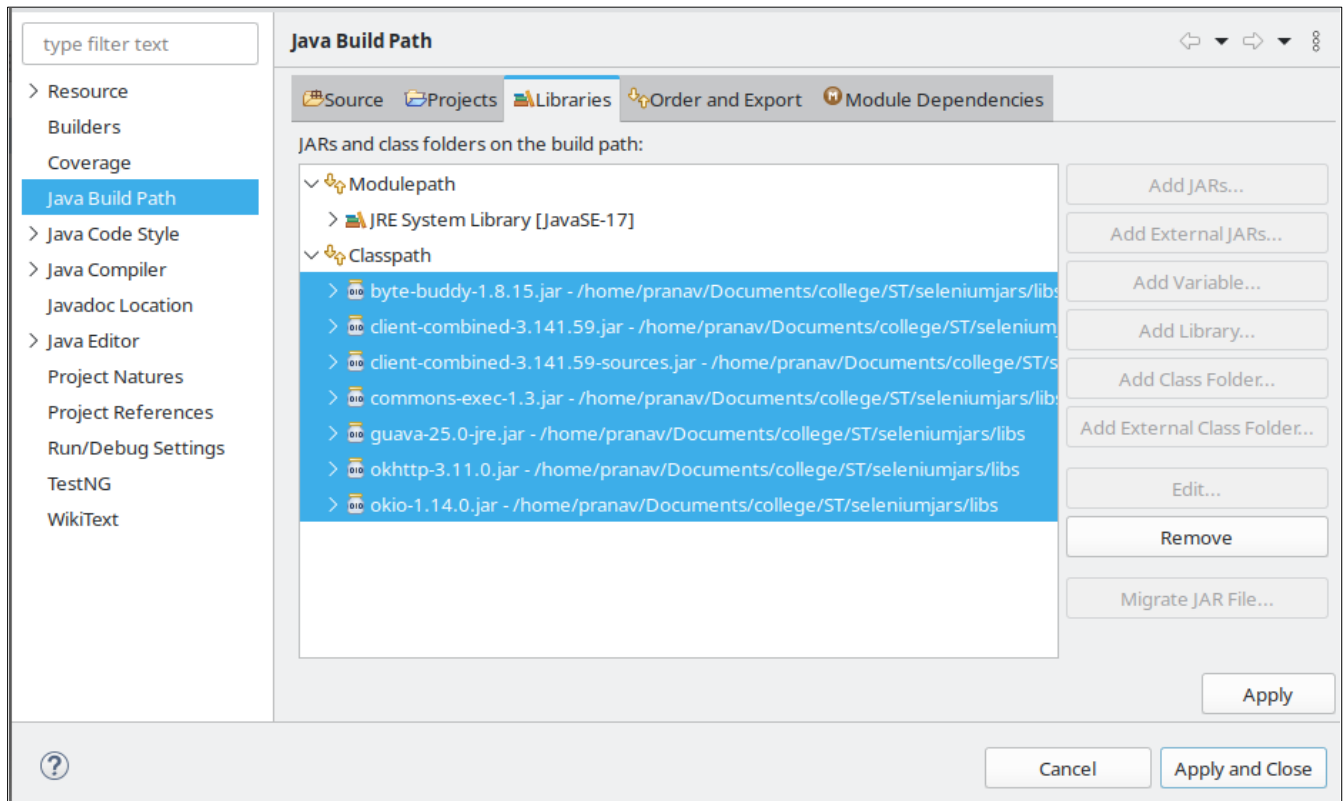
Output:

| https://www.google.co.in/ | | | |
|---------------------------|-------------------|--|-------------------|
| | Command | Target | Value |
| 1 | ✓ open | https://www.google.co.in/ | |
| 2 | ✓ set window size | 1050x848 | |
| 3 | ✓ type | name=q | energy efficient |
| 4 | ✓ send keys | name=q | #{KEY_ENTER} |
| 5 | ✓ assert title | energy efficient - Google S earch | |
| 6 | ✓ verify text | css=div:nth-child(1) > .g > div > div .LC20lb | Energy Efficiency |

3.1. Opening chrome from Eclipse using selenium

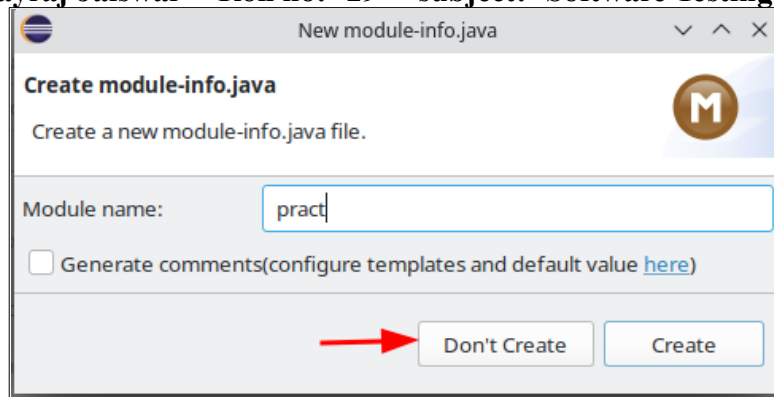
NOTE: We are going to use Eclipse IDE for this practical.

1. Download latest Eclipse IDE (java development) from official site.
2. Install Eclipse IDE and launch it, set its workspace directory.
3. Create a new Java Project, set appropriate project name and click on next



4. Now navigate to Libraries and click on Add External JARs
5. Add these JARs and click on Finish and a window will popup saying do you want to create module? Just click on don't create

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Now we are ready to code just create the new class file by right clicking on the “src” folder and set appropriate class name like I am using “LaunchChrome” as my class name. Make sure you have latest ChromeDriver.

Code:

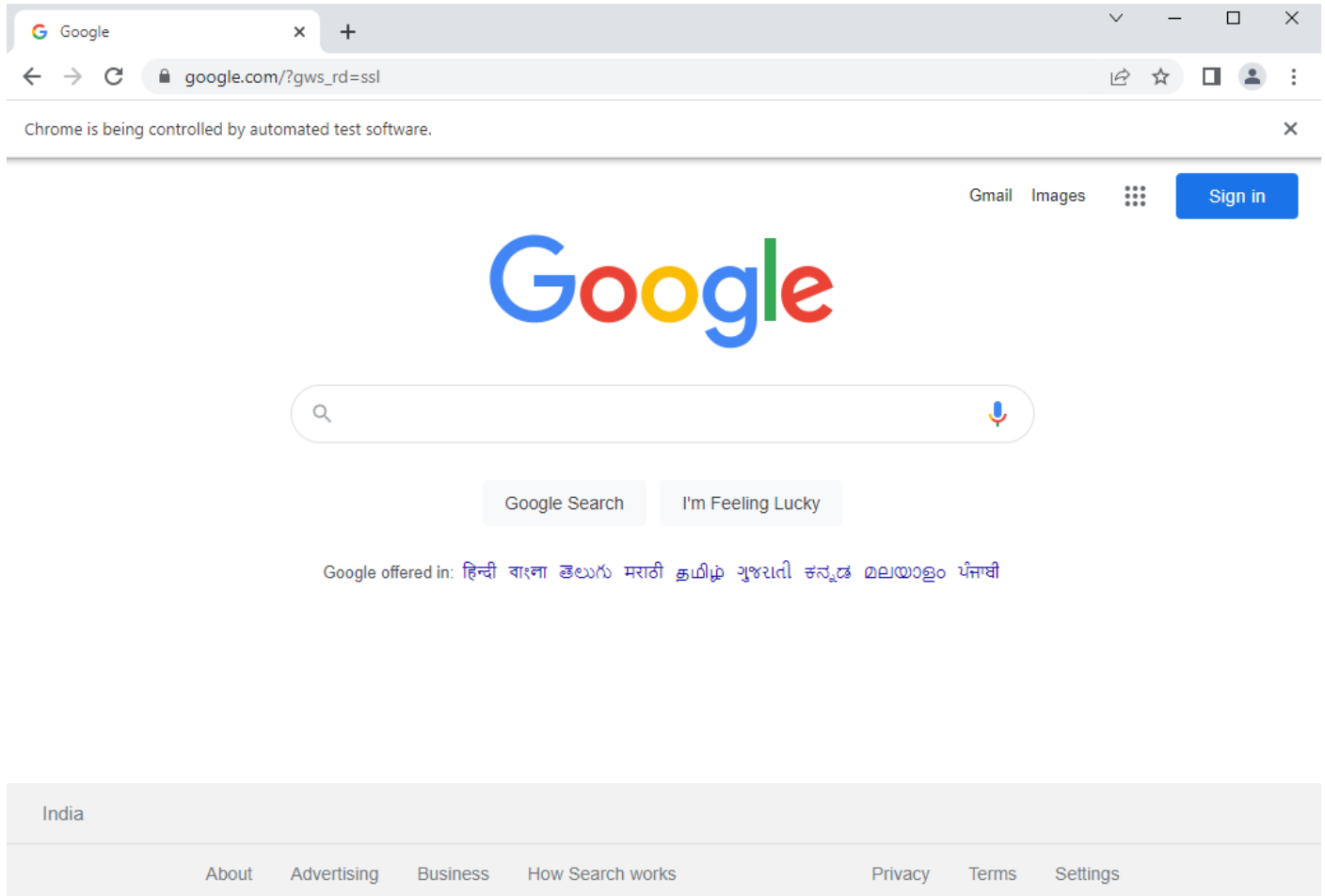
```
package pract;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;

public class LaunchChrome {
    //public static String driverPath="D:\\TYCS28\\eclipse"
    public static WebDriver driver;

    public static void main(String[] args) {
        // TODO Auto-generated method stub
        System.out.println("Launching chrome....");
        System.setProperty("webdriver.chrome.driver",
"D:\\Documents\\College\\Practicals\\ST\\seleniumjars\\chromedriver-105.exe");
        driver = new ChromeDriver();
        driver.navigate().to("http://google.com");
    }
}
```

Now, lets run the program by right clicking on class name click on Run As > 1 Java Application

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output:



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3.2. write a code to search Selenium tutorial in google through code.

Code:

```
package pract3;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

public class Search {
    public static void main(String args[]) {
        //System Property for Chrome Driver

        System.setProperty("webdriver.chrome.driver", "D:\\Documents\\College\\Practicals\\ST\\
seleniumjars\\chromedriver-105.exe");

        // Instantiate a ChromeDriver class.
        WebDriver driver = new ChromeDriver();
        driver.navigate().to("https://google.co.in/");
        //Maximize the browser
        driver.manage().window().maximize();
        //Search on the web
        WebElement element = driver.findElement(By.name("q"));
        element.sendKeys("junit");
        element.submit();
    }
}
```

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Output:

Selenium tutorial - Google Search

google.co.in/search?q=Selenium+tutorial&source=hp&ei=QoAoY5CADNCU-AaT57W4DQ&iflsig=AjiK0e8AAAAAYyiOUoV3swGJo6

Chrome is being controlled by automated test software.

Google

Selenium tutorial

All Videos Books Shopping News More Tools

About 1,63,00,000 results (0.55 seconds)

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<https://www.javatpoint.com> › selenium-tutorial

Selenium Tutorial - Javatpoint

Selenium Tutorial. **Selenium tutorial** provides basic and advanced concepts of Selenium. Our **Selenium tutorial** is designed for beginners and professionals.

[Selenium WebDriver](#) · [Selenium with C# Tutorial](#) · [Selenium IDE](#) · [Selenium Python](#)

<https://www.guru99.com> › selenium-tutorial

Selenium Tutorial - Guru99

26-Aug-2022 — **Selenium** is a popular open-source web-based automation tool. This online course is a step by step guide to learn **Selenium** Concepts. It is ...

[Selenium Tutorial PDF](#) · [Selenium IDE Tutorial](#) · [Selenium](#) · [Selenium Webdriver](#)

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3.3. write and test a program to login into Facebook Account use Selenium.

Code:

```
package pract3;

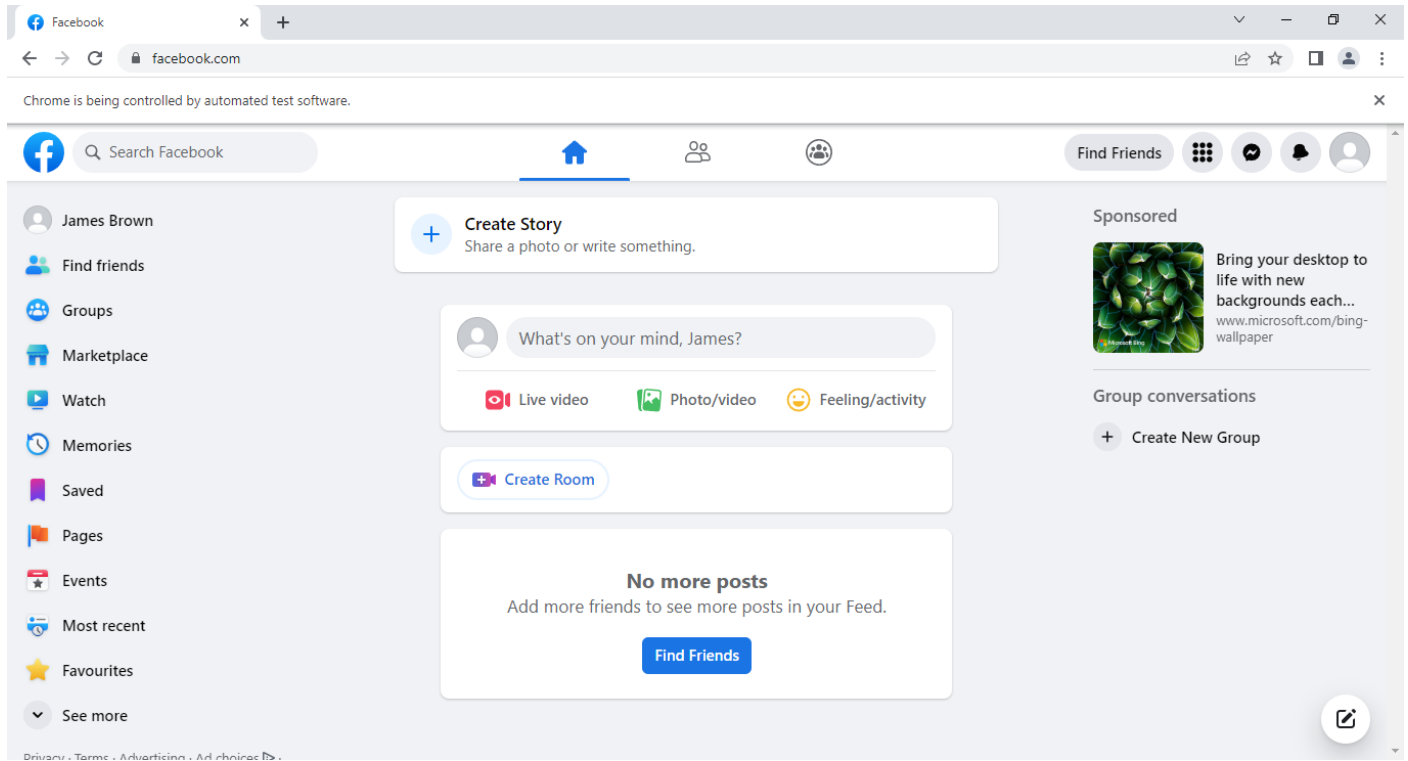
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

public class LoginIntoFB {
    public static void main(String args[]) {
        //System Property for Chrome Driver

        System.setProperty("webdriver.chrome.driver", "D:\\Documents\\College\\Practicals\\ST\\seleniumjars\\chromedriver-105.exe");

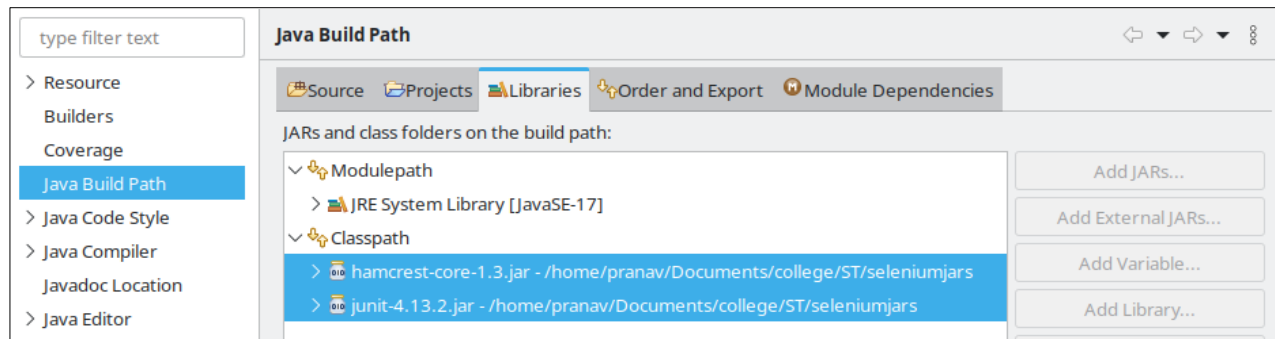
        // Instantiate a ChromeDriver class.
        WebDriver driver = new ChromeDriver();
        driver.navigate().to("https://www.facebook.com/");
        //Maximize the browser
        driver.manage().window().maximize();
        //Enter values and submit them
        WebElement elementEmail = driver.findElement(By.name("email"));
        elementEmail.sendKeys("student.unity@proton.me");
        WebElement elementPasswd = driver.findElement(By.name("pass"));
        elementPasswd.sendKeys("Unity@1234");
        WebElement elementSubmit = driver.findElement(By.name("login"));
        elementSubmit.submit();
    }
}
```


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Output:



Write and test the calculator program using JUnit.

1. Download JUnit via <https://search.maven.org/search?q=g:junit%20AND%20a:junit>
2. Download hamcrest-core 1.3 via <https://search.maven.org/artifact/org.hamcrest/hamcrest-core/1.3/jar>
3. Move these 2 JARs to your preferred location or move them to the Selenium JARs folder.
4. Now launch the Eclipse with your workspace and
5. Import these JARs by right click on your project (in Package Explorer) > Build Path > Configure Build Path.
6. The window will appear
7. Click on Classpath and click on Add External JARs Button and add those 2 JARs.
8. Once done click on Apply and Close.



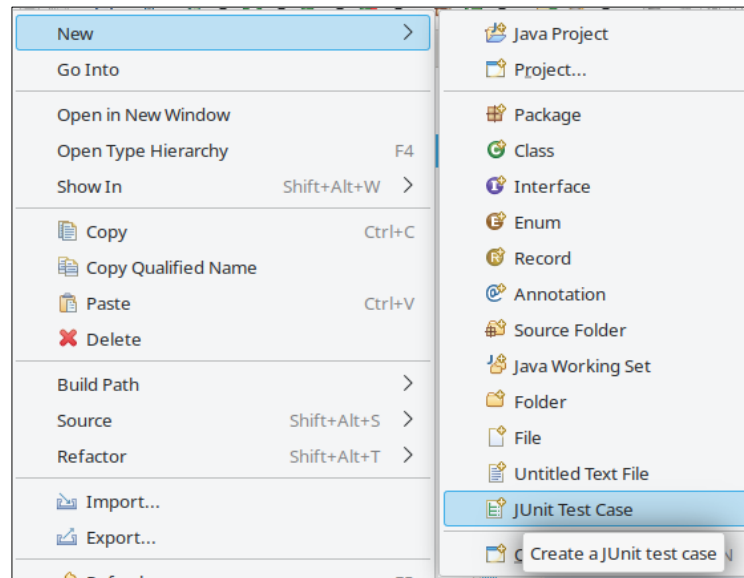
1. Create new class file named as Calculator, and write the following code:

```
public class Calculator {  
    public int add(int a, int b) {  
        return a + b;  
    }  
}
```

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```
public int subtract(int a, int b) {  
    return a - b;  
}  
}
```

2. Now, Create JUnit Test Case,



3. In class under test field click on browse.

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New JUnit Test Case

JUnit Test Case

The use of the default package is discouraged.

☐ New JUnit 3 test ☒ New JUnit 4 tes ☐ New JUnit Jupiter te:

Source folder: Pract4/src Browse...

Package: (default) Browse...

Name: CalculatorTest 1

Superclass: java.lang.Object Browse...

Which method stubs would you like to create?

☒ @BeforeClass setUpBeforeClass() ☒ @AfterClass tearDownAfterClass

☒ @Before setUp() ☒ @After tearDown 2

☐ constructor

Do you want to add comments? (Configure templates and default value [here](#))

☐ Generate comments

Class under test: Browse... 3

< Back Next > Cancel Finish

4. Enter Calculator and select appropriate class from the search.

Class Under Test

Test stubs will be generated for class:

calcu

Matching items:

Calculator - Pract4/src

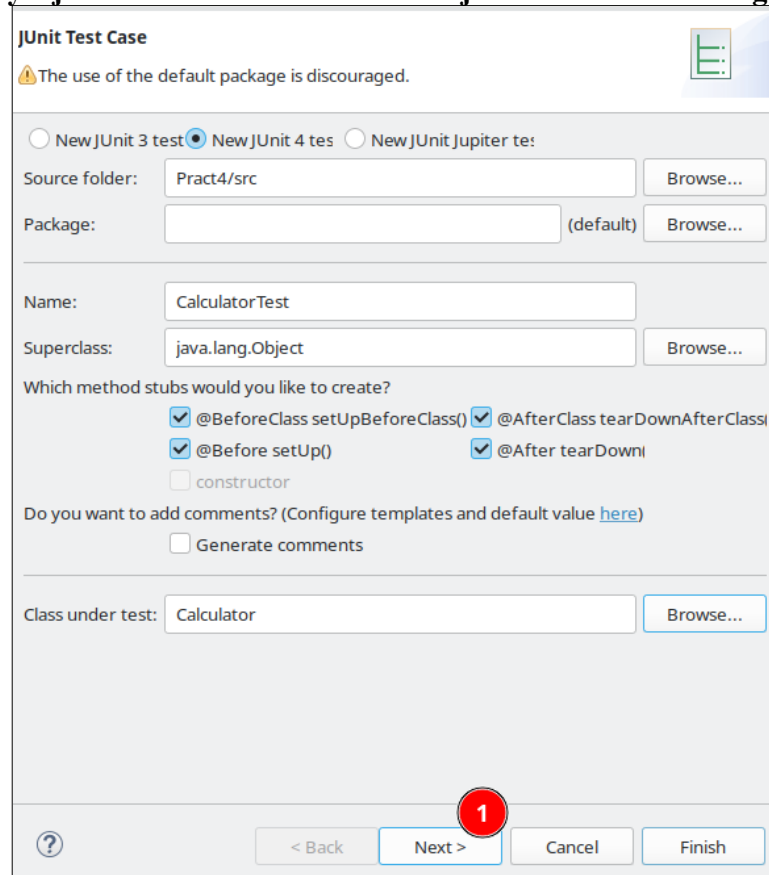
Pract4/src

? Cancel OK

5. Click on OK.

6. Click on Next

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The image shows the 'JUnit Test Case' dialog box in an IDE. At the top, there is a warning icon and the text 'The use of the default package is discouraged.' Below this, there are three radio buttons: 'New JUnit 3 test', 'New JUnit 4 test' (which is selected), and 'New JUnit Jupiter test'. The 'Source folder' is set to 'Pract4/src' with a 'Browse...' button. The 'Package' is set to '(default)' with a 'Browse...' button. The 'Name' is 'CalculatorTest' and the 'Superclass' is 'java.lang.Object', both with 'Browse...' buttons. Under 'Which method stubs would you like to create?', there are four checked checkboxes: '@BeforeClass setUpBeforeClass()', '@AfterClass tearDownAfterClass()', '@Before setUp()', and '@After tearDown()'. There is also an unchecked checkbox for 'constructor'. Below this, it asks 'Do you want to add comments? (Configure templates and default value [here](#))' with an unchecked 'Generate comments' checkbox. At the bottom, 'Class under test' is set to 'Calculator' with a 'Browse...' button. The bottom of the dialog has a help icon, '< Back', 'Next >' (highlighted with a red circle containing the number 1), 'Cancel', and 'Finish' buttons.

JUnit Test Case

⚠ The use of the default package is discouraged.

☐ New JUnit 3 test ☒ New JUnit 4 test ☐ New JUnit Jupiter test

Source folder: Pract4/src Browse...

Package: (default) Browse...

Name: CalculatorTest

Superclass: java.lang.Object Browse...

Which method stubs would you like to create?

☒ @BeforeClass setUpBeforeClass() ☒ @AfterClass tearDownAfterClass()

☒ @Before setUp() ☒ @After tearDown()

☐ constructor

Do you want to add comments? (Configure templates and default value [here](#))

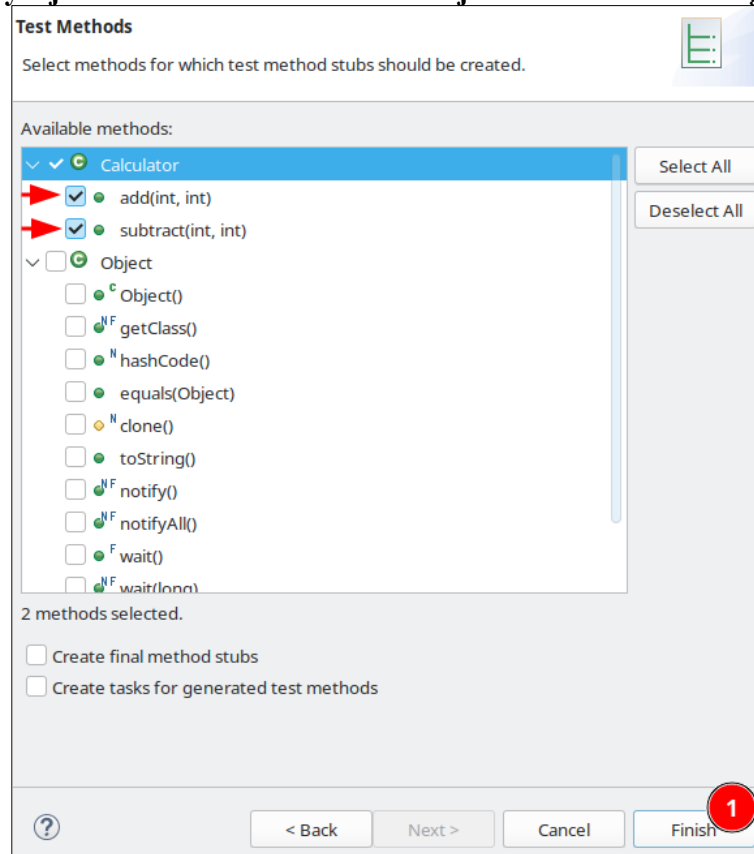
☐ Generate comments

Class under test: Calculator Browse...

? < Back Next > Cancel Finish

7. Select the 2 Methods of the Calculator, and click on Finish

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8. Template will generate. We will be writing the code in **@Test** block:

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```
CalculatorTest.java X
1 import static org.junit.Assert.*;
8
9 public class CalculatorTest {
10
11     @BeforeClass
12     public static void setUpBeforeClass() throws Exception {
13     }
14
15     @AfterClass
16     public static void tearDownAfterClass() throws Exception {
17     }
18
19     @Before
20     public void setUp() throws Exception {
21     }
22
23     @After
24     public void tearDown() throws Exception {
25     }
26
27     @Test
28     public void testAdd() {
29         fail("Not yet implemented");
30     }
31
32     @Test
33     public void testSubtract() {
34         fail("Not yet implemented");
35     }
36
37 }
38
```

9. Write the code given below in place of fail("Not yet implemented");

@Test

```
public void testAdd() {
    Calculator calculator = new Calculator();
    int a = 1234;
    int b = 5678;
    int actual = calculator.add(a, b);

    int expected = 6912;

    assertEquals(expected, actual);
}
```

@Test

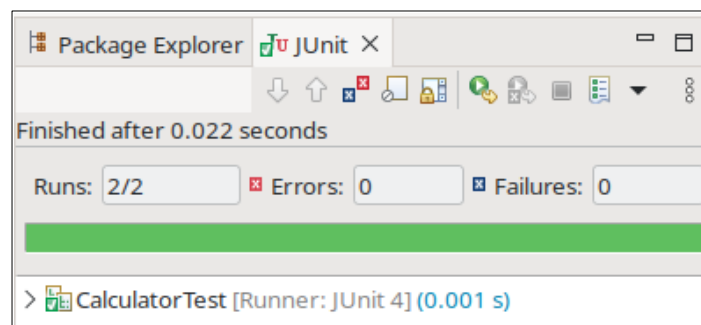
```
public void testSubtract() {
    Calculator calculator = new Calculator();
```

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```
int a = 1234;  
int b = 5678;  
int actual = calculator.subtract(b, a);  
  
int expected = 4444;  
  
assertEquals(expected, actual);  
}
```

10. Right click > Run as > 1 JUnit File.

Output:



Practical No. 5

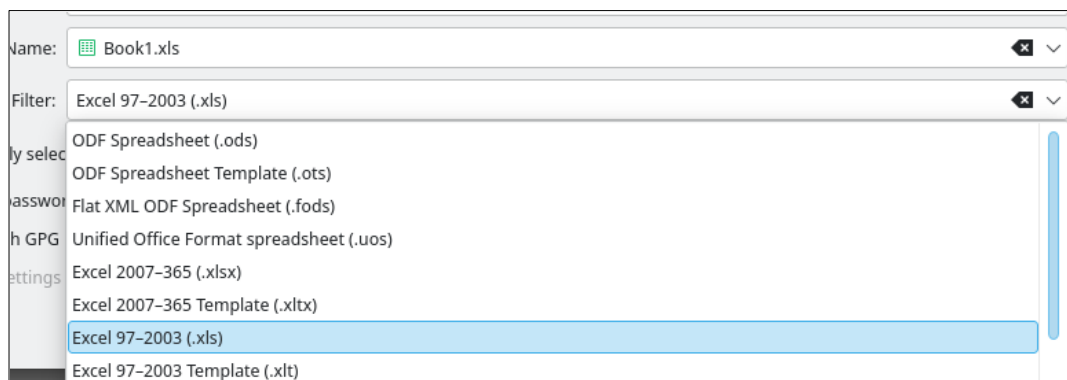
Write and test a program to update 6 students records into table into Excel file (using TestNG)

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1. Create new Excel Workbook and add the following data:

| | A | B | C | D | E | F | |
|---|--------|-------|----|----|----|-------|--|
| 1 | rollno | name | X | Y | Z | Total | |
| 2 | 1 | ram | 60 | 50 | 20 | 130 | |
| 3 | 2 | jay | 70 | 40 | 30 | 140 | |
| 4 | 3 | kamal | 50 | 60 | 40 | 150 | |
| 5 | 4 | shyam | 65 | 80 | 60 | 205 | |
| 6 | 5 | raj | 80 | 45 | 30 | 155 | |
| 7 | 6 | rahul | 75 | 40 | 60 | 175 | |
| 8 | | | | | | | |

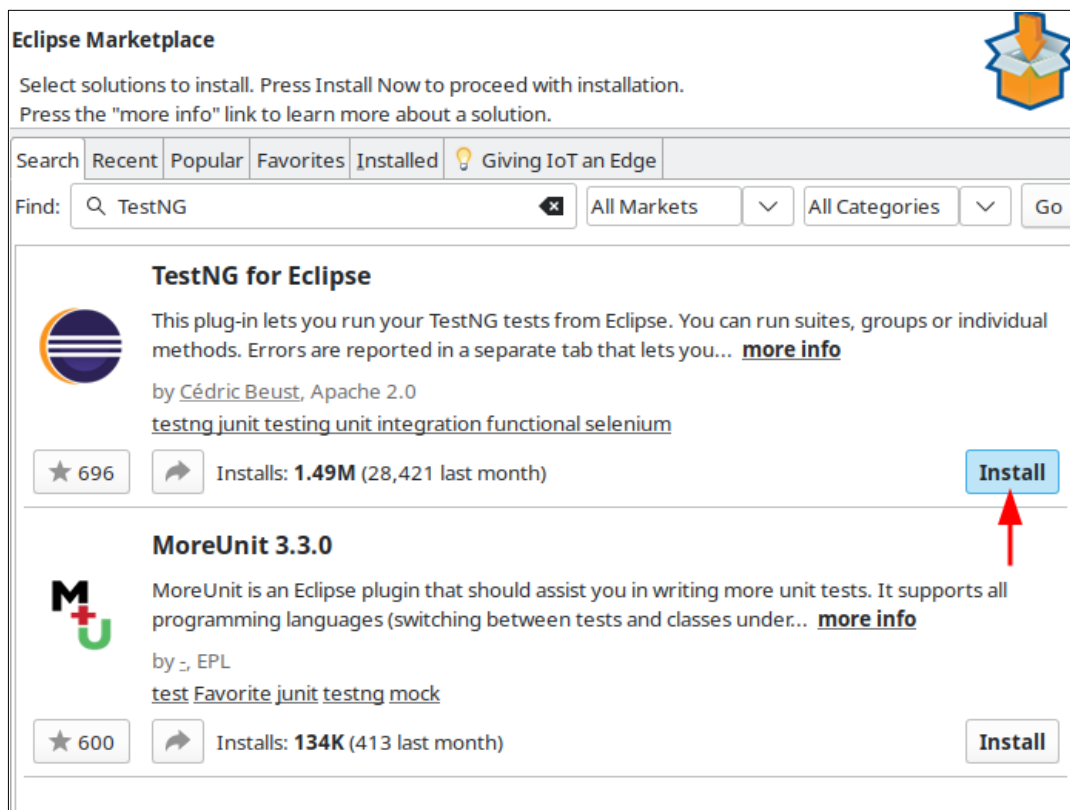
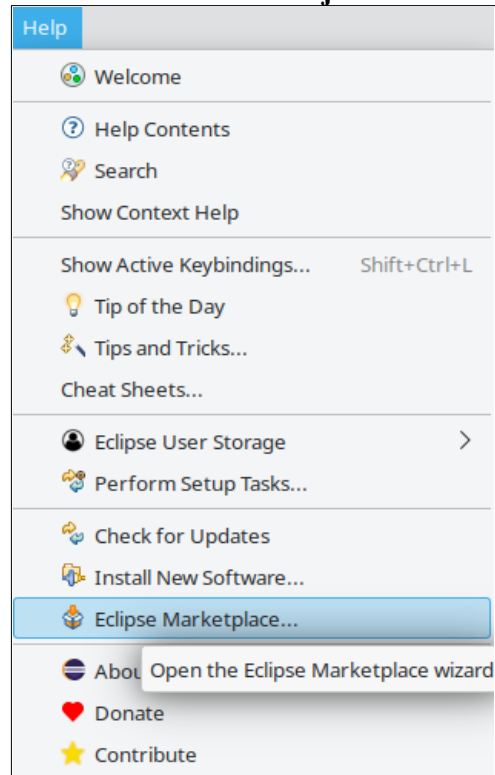
2. And now save as



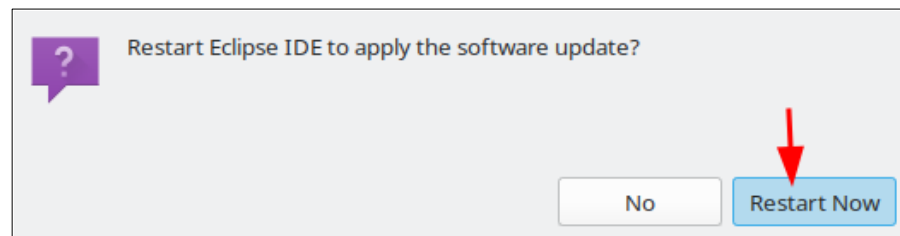
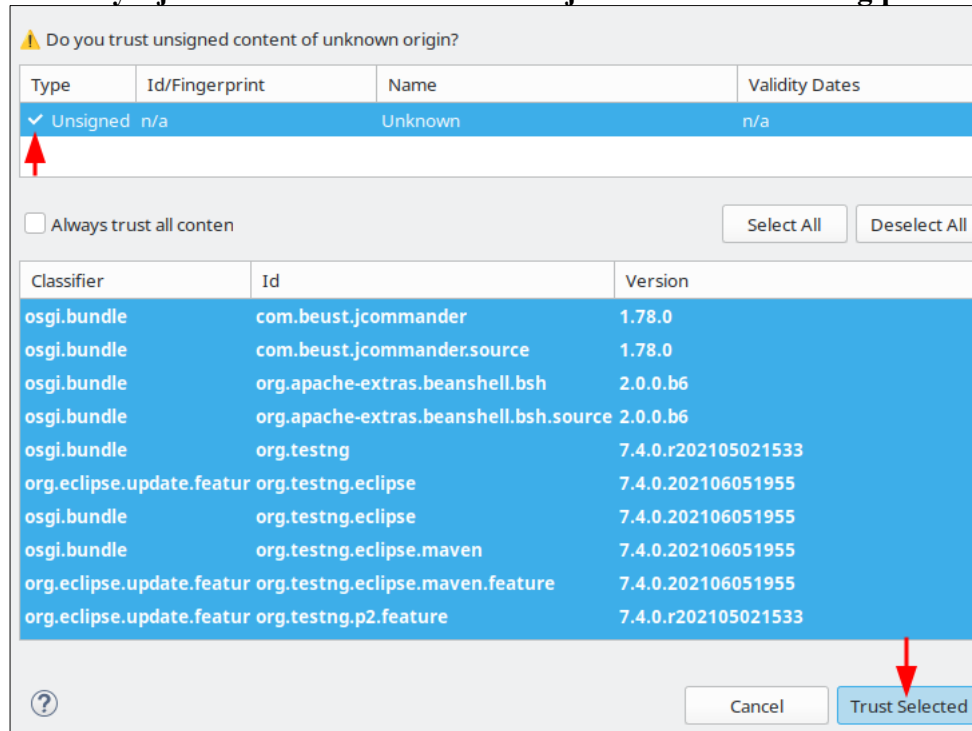
2. Now start Eclipse and install TestNG by click on Help and select Eclipse Marketplace.

3. Search TestNG and hit Enter, and click on Install

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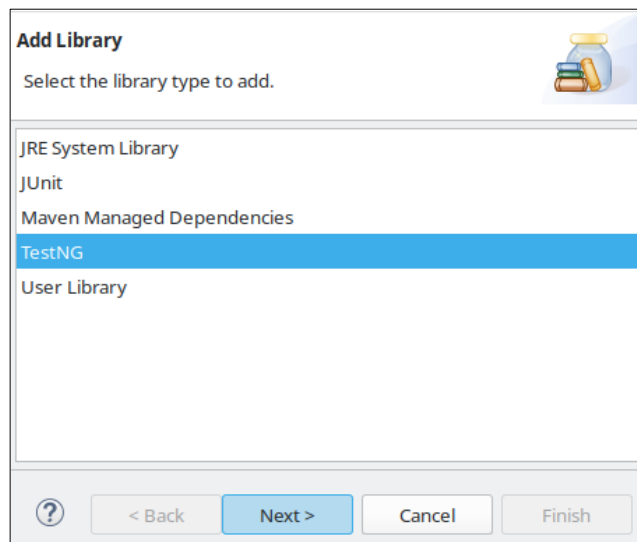
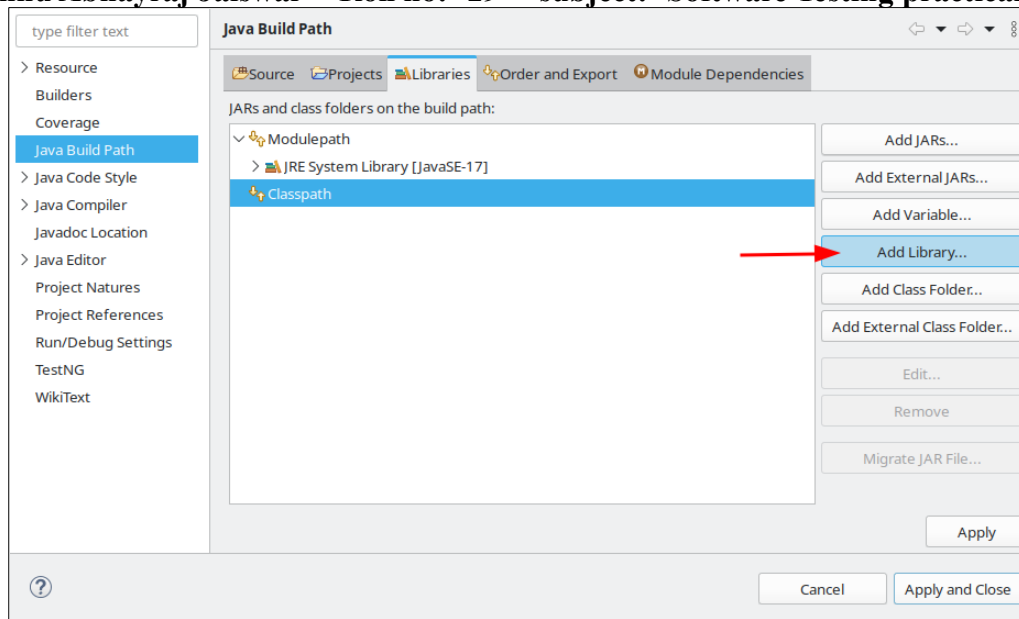
Name:- Vishnu Abhayraj Jaiswal Roll no:- 29 subject:- Software Testing practical



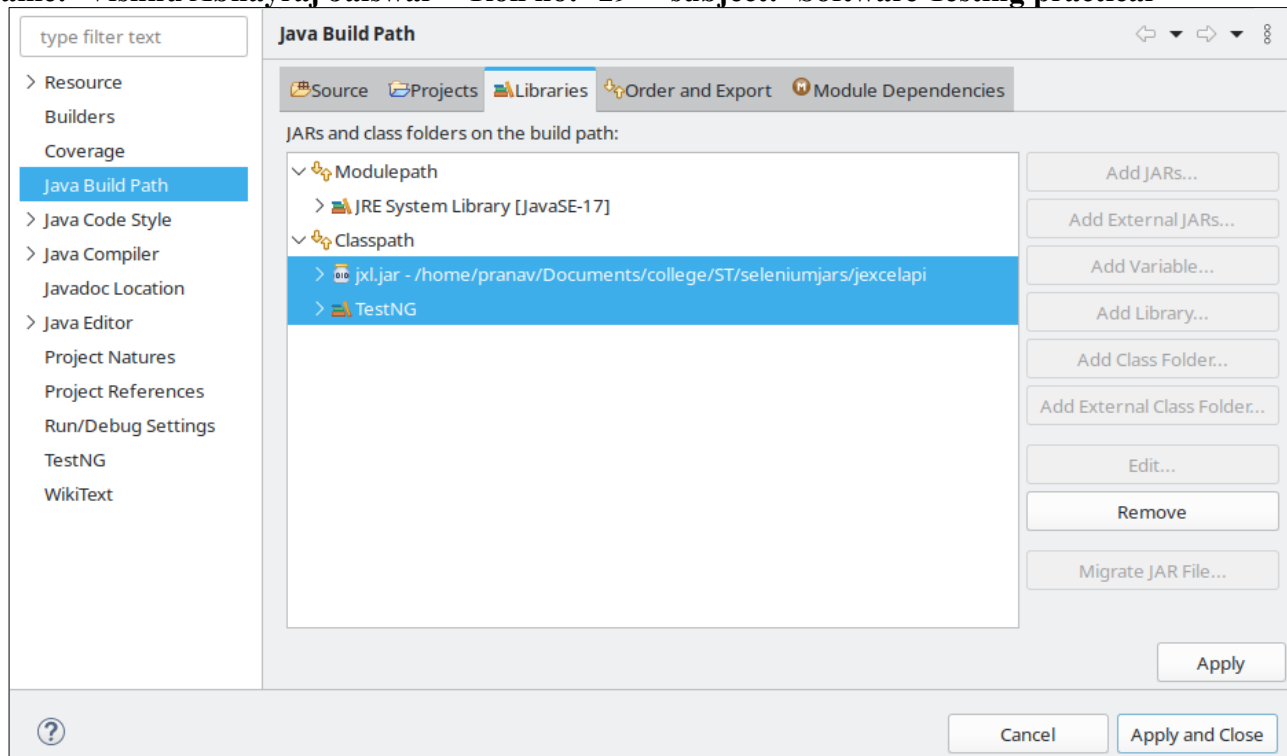
3. Now, create new Java Project, create new Java Class.

4. And Add TestNG Library and jexcelapi JARs.

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5. Add these JARs and click on Finish and a window will popup saying do you want to create module? Just click on don't create.

6. Now create new JAVA Class.

7. Now type the code given below in Pract5.java

```
package pract5;
```

```
import jxl.*;
```

```
import jxl.write.*;
```

```
import org.testng.annotations.*;
```

```
import java.io.*;
```

```
public class Pract5 {
```

```
    @BeforeClass
```

```
    public void f1() {}
```

```
    @Test
```

```
    public void testImportExport() throws Exception{
```

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```
FileInputStream fi = new
FileInputStream("/run/media/pranav/Data/Pranav/College/Practical/ST/Book.xls");

Workbook w = Workbook.getWorkbook(fi);

Sheet s = w.getSheet(0);

String a[][]=new String[s.getRows()][s.getColumns()];

FileOutputStream fo = new
FileOutputStream("/run/media/pranav/Data/Pranav/College/Practical/ST/resBook.xls");

WritableWorkbook ww = Workbook.createWorkbook(fo);

WritableSheet ws = ww.createSheet("result", 0);

for(int i=0; i<s.getRows();i++)
    for(int j=0; j<s.getColumns();j++) {
        a[i][j]=s.getCell(j,i).getContents();
        Label l2 = new Label(j,i,a[i][j]);
        ws.addCell(l2);
        Label l1 = new Label(6,0,"Result");
        ws.addCell(l1);
    }

for(int i=1;i<s.getRows();i++) {
    for(int j=2;j<s.getColumns();j++) {
        a[i][j]=s.getCell(j,i).getContents();
        int x = Integer.parseInt(a[i][j]);
        if(x>35) {
            Label l1 = new Label(6,i,"pass");
            ws.addCell(l1);
        }
        else {
            Label l1 = new Label(6,i,"fail");
            ws.addCell(l1);
            break;
        }
    }
}

ww.write();
```

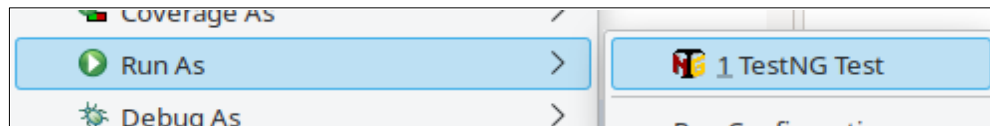
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```
wwb.close();
```

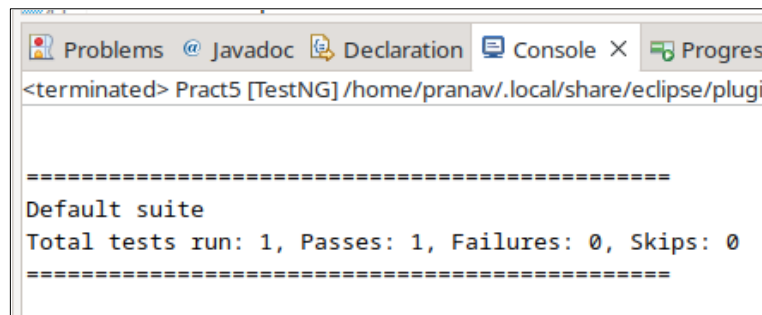
```
}
```

```
}
```

8. Now run the file as 1 TestNG test



Output:



| | A | B | C | D | E | F | G |
|---|--------|-------|----|----|----|-------|--------|
| 1 | rollno | name | X | Y | Z | Total | Result |
| 2 | 1 | ram | 60 | 50 | 20 | 130 | fail |
| 3 | 2 | jay | 70 | 40 | 30 | 140 | fail |
| 4 | 3 | kamal | 50 | 60 | 40 | 150 | pass |
| 5 | 4 | shyam | 65 | 80 | 60 | 205 | pass |
| 6 | 5 | raj | 80 | 45 | 30 | 155 | fail |
| 7 | 6 | rahul | 75 | 40 | 60 | 175 | pass |

Practical No. 6

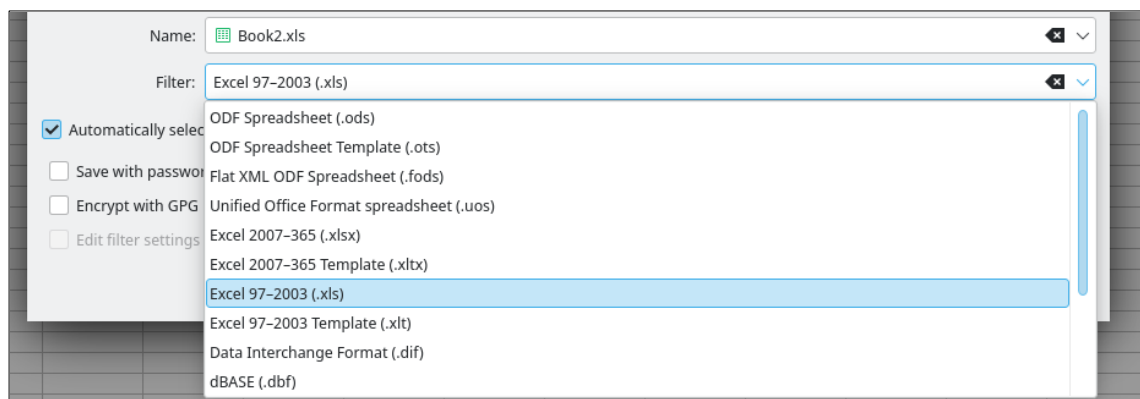
Write & test a program to select the number of students who have scored more than 60 in any one subject (or all subjects) using TestNG.

1. Create new Excel Workbook and add the following data:

2. And now save as

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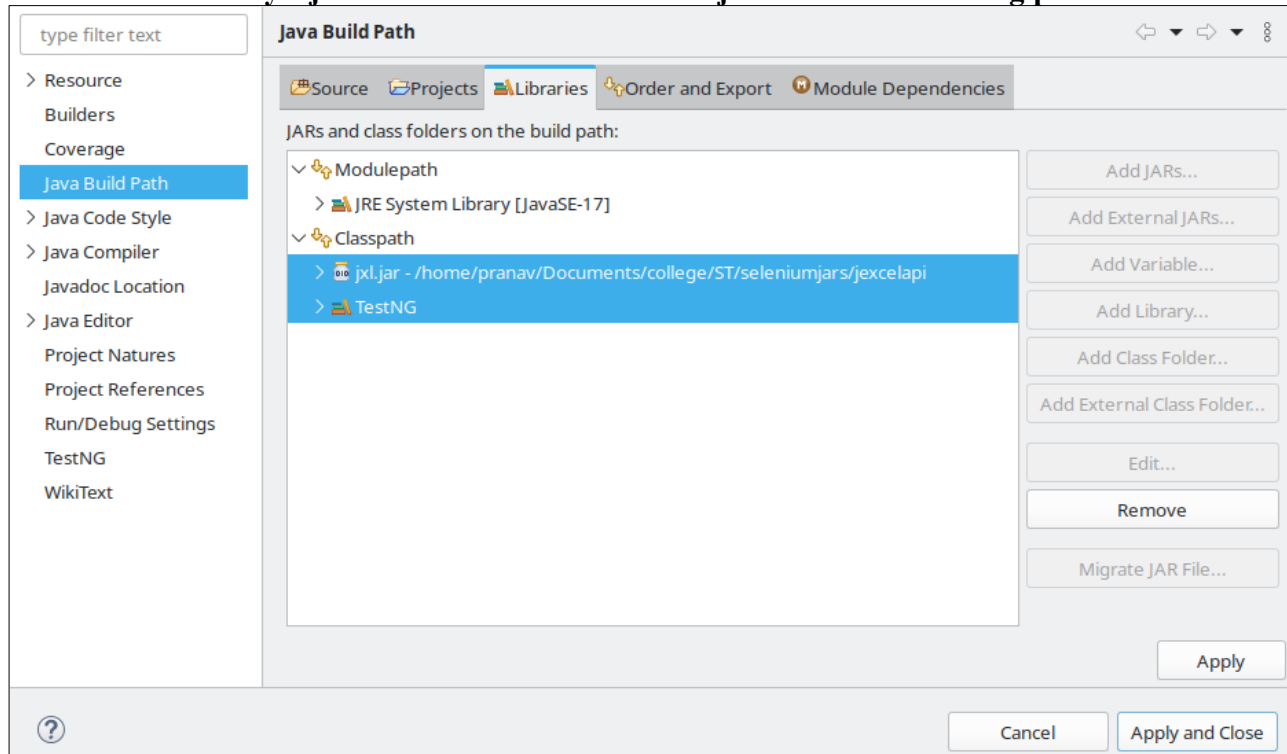
| | A | B | C | D | E | F | |
|---|--------|-------|----|----|----|-------|--|
| 1 | rollno | name | X | Y | Z | Total | |
| 2 | 1 | ram | 60 | 50 | 20 | 130 | |
| 3 | 2 | jay | 70 | 40 | 30 | 140 | |
| 4 | 3 | kamal | 50 | 60 | 40 | 150 | |
| 5 | 4 | shyam | 65 | 80 | 60 | 205 | |
| 6 | 5 | raj | 80 | 45 | 30 | 155 | |
| 7 | 6 | rahul | 75 | 40 | 10 | 125 | |
| 8 | | | | | | | |



3. Now, create new Java Project, create new Java Class.

4. And Add TestNG Library and jexcelapi JARs. Into buildpath (classpath)

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5. Add these JARs and click on Finish and a window will popup saying do you want to create module? Just click on don't create.

6. Now create new JAVA Class and type following code:

```
package pract6;
```

```
import jxl.*;
```

```
import jxl.write.*;
```

```
import java.io.*;
```

```
import org.testng.annotations.Test;
```

```
public class Pract6 {
```

```
    @Test
```

```
    public void testImportexport()throws Exception{
```

```
        FileInputStream fi = new  
        FileInputStream("/home/pranav/Documents/college/ST/Book2.xls");
```

```
        Workbook w = Workbook.getWorkbook(fi);
```

```
        Sheet s = w.getSheet(0);
```

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```
String a[][] = new String[s.getRows()][s.getColumns()];
FileOutputStream fo = new
FileOutputStream("/home/pranav/Documents/college/ST/resBook2.xls");
WritableWorkbook ww = Workbook.createWorkbook(fo);
WritableSheet ws = ww.createSheet("result",0);
int c = 0;
for(int i=0;i<s.getRows();i++){
    for(int j=0;j<s.getColumns();j++){
        if(i>=1){
            String b = new String();
            b = s.getCell(3,i).getContents();
            int x = Integer.parseInt(b);
            if(x<60){
                c++;
                break;
            }
        }
        a[i][j] = s.getCell(j,i).getContents();
        Label L2 = new Label(j,i-c,a[i][j]);
        ws.addCell(L2);
    }
}
ww.write();
ww.close();
}
```

7. Now run the file as 1 TestNG test

Output:

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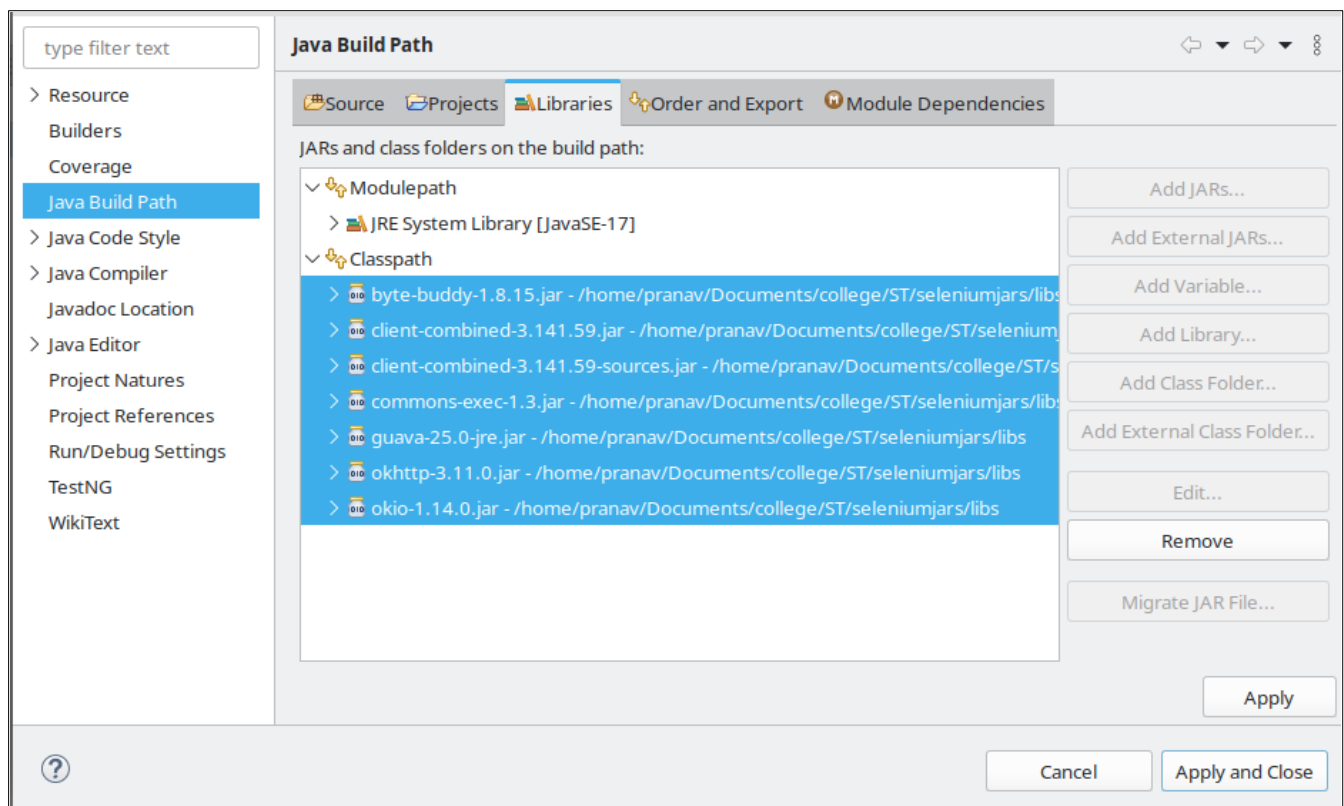
| | A | B | C | D | E | F | |
|---|--------|-------|----|----|----|-------|--|
| 1 | rollno | name | X | Y | Z | Total | |
| 2 | 3 | kamal | 50 | 60 | 40 | 150 | |
| 3 | 4 | shyam | 65 | 80 | 60 | 205 | |
| 4 | | | | | | | |

Practical

No. 7

Write and test a program to provide total numbers of objects present / available on the page.

1. Create a new Java Project and create a new Class then add External Selenium JARs



2. Click on Finish and a window will popup saying do you want to create module? Just click on don't create.

3. Now add the following code in newly created Class.

```
package pract7;
```

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

public class Pract7{
    public static String driverPath = "usr\\bin\\";

    public static WebDriver driver;

    public static void main (String args[]){
        System.setProperty("webdriver.chrome.driver",driverPath+"chromedriver.exe");
        driver = new ChromeDriver();
        driver.get("https://kirticollege.edu.in/");

        java.util.List<WebElement> links = driver.findElements(By.tagName("a"));
        System.out.println("Total Links are"+links.size());
        for(int i=0;i<links.size();i++){
            System.out.println("Link"+i+"Link name"+links.get(i).getText());
        }
        driver.quit();
    }
}
```

Output:

```
ChromeDriver was started successfully.
Aug 19, 2022 9:39:47 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: W3C
Total Links are275
Link0Link name
Link1Link name
Link2Link name
```

Practical No. 8

Write and test a program to print total numbers of single drop down list items present / available on the page and print selected item.

NOTE: Follow the same steps to create new project and class as Practical 7 for Practical 8, Practical 9 and Practical 10.

code:

```
package pract8;
import java.util.List;
import java.util.concurrent.TimeUnit;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.support.ui.Select;
public class Pract8 {
    public static WebDriver driver;
    public static void main(String[] args) throws InterruptedException {
        System.setProperty("webdriver.chrome.driver","usr\\bin\\chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);
        driver.get("https://automationexplore.com/selenium-automation-practice-page/");
        Select oSelect = new Select(driver.findElement(By.name("country")));
        oSelect.selectByVisibleText("India");
        Thread.sleep(2000);
        oSelect.selectByIndex(2);
    }
}
```

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```
Thread.sleep(2000);  
List<WebElement> oSize = oSelect.getOptions();  
int iListSize= oSize.size();  
System.out.println("No of items"+iListSize);  
for(int i=0;i<iListSize ; i++) {  
    String sValue = oSelect.getOptions().get(i).getText();  
    System.out.println(sValue);  
    if(sValue.equals("USA")) {  
        oSelect.selectByIndex(i);  
        break;  
    }  
}  
driver.quit();  
}
```

Output:

```
ChromeDriver was started successfully.  
Aug 19, 2022 9:41:40 PM org.openqa.selenium.remote.ProtocolHandshake createSession  
INFO: Detected dialect: W3C  
No of items5  
None Selected  
USA
```

Practical No. 9

Write and test a program to print total numbers of Multiple drop down list items present / available on the page and print selected item.

NOTE: Follow the same steps to create new project and class as Practical 7 for Practical 8, Practical 9 and Practical 10.

```
package pract9;
import java.util.List;
import java.util.concurrent.TimeUnit;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.support.ui.Select;
public class pract9 {
    public static WebDriver driver;
    public static void main(String[] args) throws InterruptedException {
        System.setProperty("webdriver.chrome.driver","usr\\bin\\chromedriver.exe");
        WebDriver driver = new ChromeDriver();
        driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);
        driver.get("https://automationexplore.com/selenium-automation-practice-page/");
        Select oSelect = new Select(driver.findElement(By.name("skills")));
        oSelect.selectByIndex(0);
        Thread.sleep(2000);
        oSelect.deselectByIndex(0);
        oSelect.selectByVisibleText("Manual Testing");
        Thread.sleep(2000);
    }
}
```

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```
oSelect.deselectByVisibleText("Manual Testing");
List<WebElement> oSize = oSelect.getOptions();
int iListSize= oSize.size();
System.out.println("No of items"+iListSize);
for(int i=0;i<iListSize ; i++) {
    String sValue = oSelect.getOptions().get(i).getText();
    System.out.println(sValue);
    oSelect.selectByIndex(i);
    Thread.sleep(2000);
}
oSelect.deselectAll();
driver.close();
}
```

Output:

```
ChromeDriver was started successfully.
Aug 19, 2022 9:43:23 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: W3C
No of items3
Manual Testing
Automation Testing
ETL Testing
```


Practical No. 10

Write and test a program to print total numbers of check boxes present / available on the page and print selected check box.

NOTE: Follow the same steps to create new project and class as Practical 7 for Practical 8, Practical 9 and Practical 10.

```
package pract10;
import java.util.List;
import java.util.concurrent.TimeUnit;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;

public class Pract10 {
    public static void main(String[] args) {
        System.setProperty("webdriver.chrome.driver", "\\usr\\bin\\chromedriver.exe");
        WebDriver driver = new ChromeDriver();

        driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);
        driver.get("https://www.techlistic.com/p/selenium-practice-form.html");

        List<WebElement> rdBtn_Gender = driver.findElements(By.id("sex-0"));
        boolean bValue = false;
        bValue = rdBtn_Gender.get(0).isSelected();
        if(bValue == true) {
            rdBtn_Gender.get(1).click();
        }else {
```

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```
        rdBtn_Gender.get(0).click();
    }
    List<WebElement>
chkBx_Profession=driver.findElements(By.name("profession"));
    int iSize = chkBx_Profession.size();
    System.out.println("Checkbox.Size:"+iSize);
    for(int i=0;i<iSize;i++) {
        String sValue = chkBx_Profession.get(i).getAttribute("value");
        System.out.println("Checkbox.Value:"+sValue);
        if(sValue.equalsIgnoreCase("Manual Tester")) {
            chkBx_Profession.get(i).click();
            break;
        }
    }
    System.out.println("Successssfull");
    driver.quit();
}
}
```

Output:

```
ChromeDriver was started successfully.
Aug 19, 2022 9:44:51 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: W3C
Checkbox.Size:2
Checkbox.Value:Manual Tester
Successssfull
```