Date:17/08/2020

Practical No 1

Aim :- Install Selenium IDE; Write a test suite containing minimum 4 test cases for different formats.

Installation of Selenium IDE in Chromium Browser

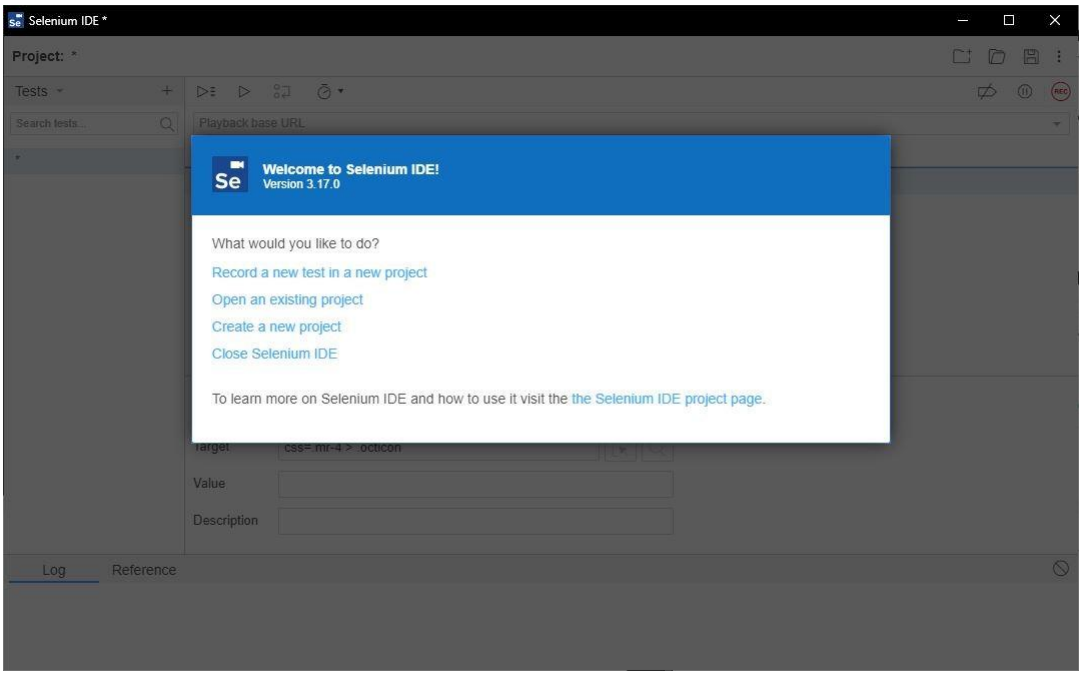
Step-1 :- Launch Chromium browser.

Step-2 :- Search for Selenium IDE in the ”chrome web store”.

Step-3 :- Select ”Add to Chrome” Button which will lead to chromium pop-up asking for permission to add the extension, click ”Add Extension” button.

Step-4 :- Chromium will automatically download and install the extension. Which can be accessed from the ”Extensions” Icon Button on the Navigation Bar.

Step-5 :- Clicking on the selenium IDE icon, the extension will open a new window with the selenium IDE.



Creating/Recording and Running a Test Suite

Step-1 :- Launch the Chromium browser and open the selenium IDE extension.

Step-2 :- When the Welcome screen of selenium IDE is visible, select the option ”create a new project”.

Step-3 :- Give an appropriate name to the project and rename the untitled default test case to another appropriate title.

Step-4 :- Set the ”Playback base URL” to the URL value of the website/webpage you wish to test.

Step-5 :- At this point you have two choices where in you can either manually type the test steps in the IDE or let selenium record the steps for you by clicking the ”Record button ON”.

Step-6 :- We will first Record the steps using selenium’s Record functionality. On click- ing the ”Record button ON” or keyboard shortcut ”Ctrl-U”.

Step-7 :- A new window will pop up with the base URL provided by us earlier , this window is special because selenium will record our mouse clicks and key inputs. *Be careful not to reveal any sensitive information in the record mode.*

Step-8 :- Now perform the testing on various elements of the HTML document either by direct clicks/key inputs or by selecting various methods from the ”right-click selenium drop-down menu” which will provide various options for assert various elements and validate various values. →

Step-9 :- You can try $\overrightarrow{\text{out}}$ filling forms, dummy login credential test and a lot more.

Step-10 :- After you are done with the test script click on ”Stop Recording” button or keyboard shortcut ”Ctrl-U”.

Step-11 :- Save the test script by clicking on ”Save project icon” or keyboard shortcut ”Ctrl-S”.

Step-12 :- Next save the script in the desired folder path and selenium will download the ”.side” file to the same .

Step-13 :- You can reopen the saved Project by clicking ”Open Project icon” or key- board Shortcut ”Ctrl-O” and selecting the ”.side” file from the desired location.

Step-14 :- To run the test click on ”Playback icon” button and selenium will run the test as per the script and log all the events in the window. You can verify which steps succeed and which ones fail with Error messages as well.

Step-15 :- The test script can be written manually as well and will produce the same results.

Selenium IDE Features

1. Menu Bar Menu bar is positioned at the top most portion of the Selenium IDE interface. It allows the user to change name/open project/save project and more. Figure

2: Menu Bar 2. ToolBar The toolbar offers options such as play test/record test and play all the tests in test suite. More advanced features such as breakpoints/debugger are also available.

3. Test case panel This panel allows the user to add/delete /modify the selenium commands. The Command, Target, and Value entry fields display the currently selected command along with its parameters. These are entry fields where you can modify the currently selected command. The first parameter specified for a command in the Reference tab of the bottom pane always goes in the Target field. If a second parameter is specified by the Reference tab, it always goes in the Value field. The Comment field allows you to specify in a human readable format a description of the current command.

4. Navigation Panel Navigation between test cases and test suites is done through the right hand side of Selenium IDE. Clicking on Tests with the small caret will open up a menu. When saving the project will be saved as the new .side format, which will include all test cases and suites combined. It is refered to as a project.

5. Console Panel The bottom pane, called Console Panel for it’s similarity with web devtools, is used for different utility functions: Log, Reference, depending on which tab is selected.

Test Case 1 :

Test URL : https://login.mailchimp.com/

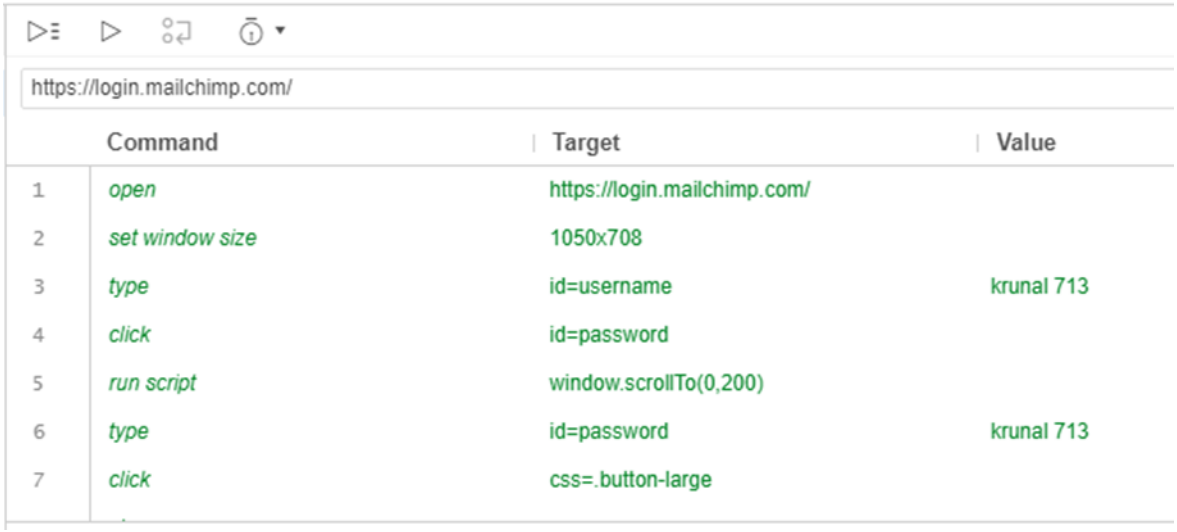
Selenium Commands used :

Command-1 :-set window size

Command-2 :-click

Command-3 :-type

Command-4 :-close



Test Case 2 :

Test URL : https://www.shopify.in/tour/ecommerce-website/

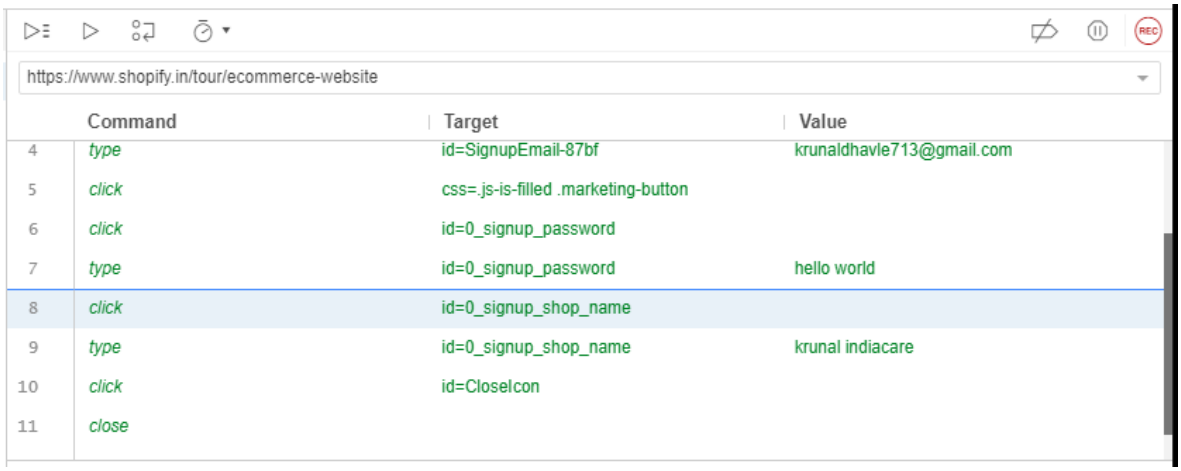
Selenium Commands used :

Command-1 :-open

Command-2 :-type

Command-3 :-click

Command-4 :-close



Test Case 3 :

Test URL : http://www.google.com/

Selenium Commands used :

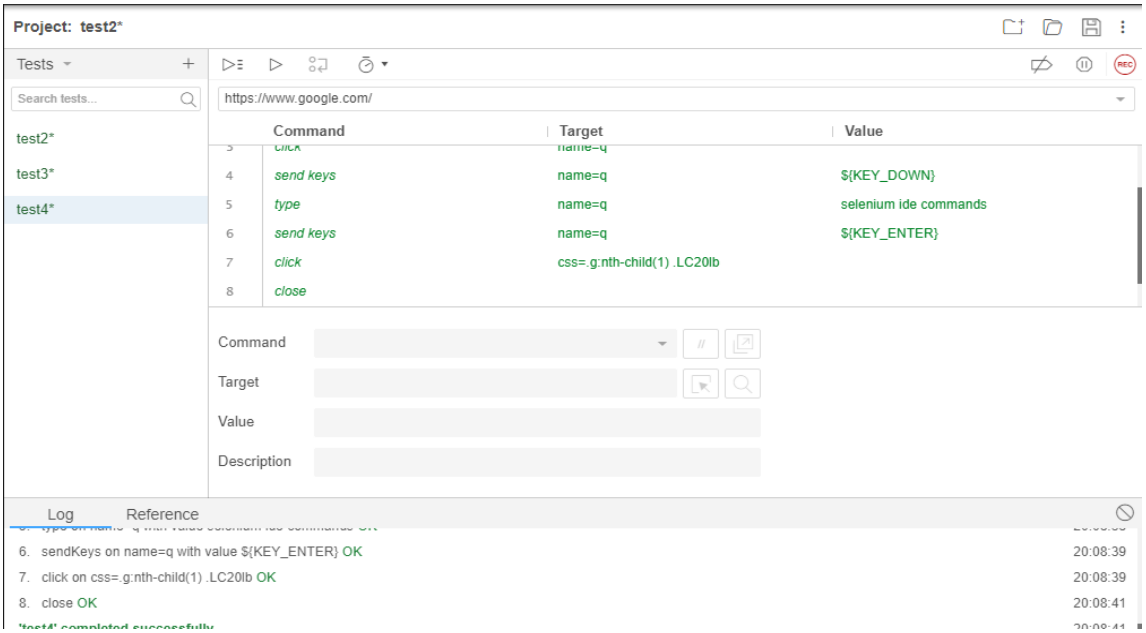
Command-1 :-open

Command-2 :-mouse

Command-3 :-send

Command-4 :-click

Command-5 :-close



Test Case 4 :

Test URL : https://www.netflix.com/in/Login
Selenium Commands used :

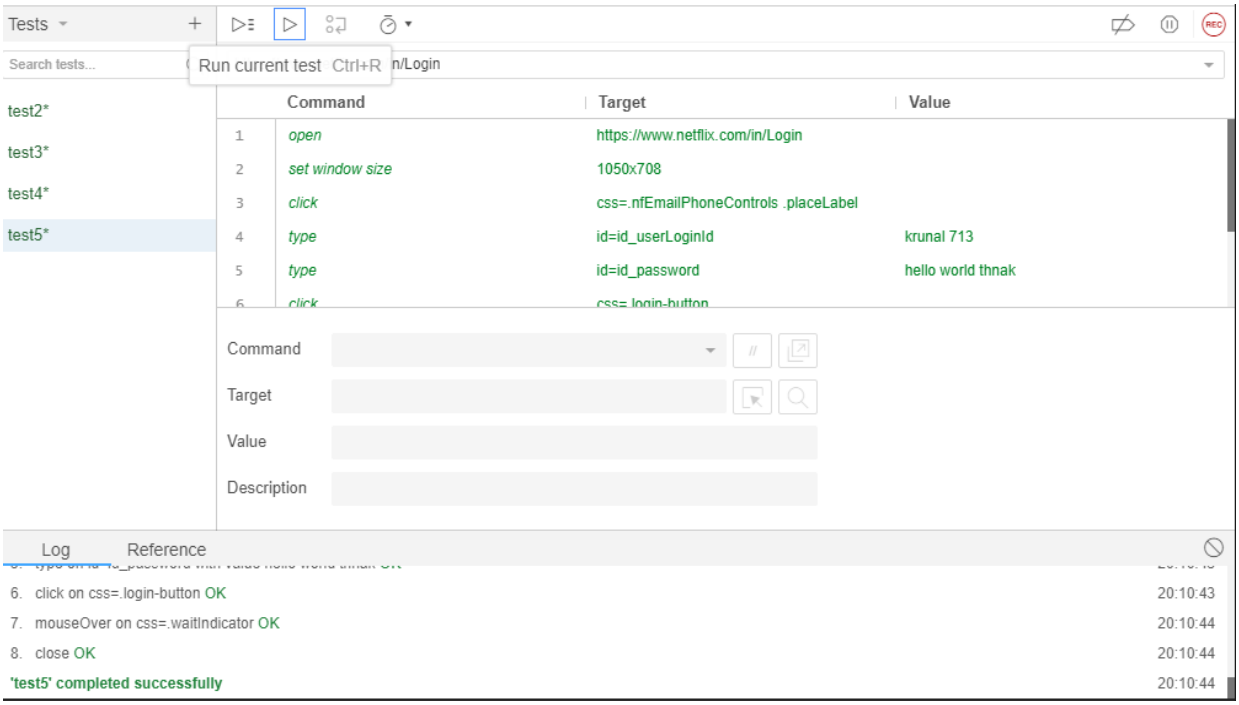
Command-1 :- wait for element

Command-2 : click

Command-3 :- assert checked

Command-4 :- type

Command-5 :- close



Date: 25/08/2020

Practical No 2

AIM: Install Selenium server and demonstrate it using a script in Java.

Theory

Selenium Java

Selenium is an umbrella project for a range of tools and libraries that enable and support the automation of web browsers. It provides extensions to emulate user interaction with browsers, a distribution server for scaling browser allocation, and the infrastructure for implementations of the W3C Web-Driver specification that lets you write interchangeable code for all major web browsers.

ChromeWebDriver

WebDriver is an open source tool for automated testing of webapps across many browsers.It provides capabilities for navigating to web pages, user input, JavaScript execution,and more. ChromeDriver is a standalone server that implements the W3C WebDriver standard. ChromeDriver is available for Chrome on Android and Chrome on Desktop (Mac, Linux, Windows and ChromeOS).

Eclipse IDE

Eclipse IDE is a famous IDE for java development , Eclipse IDE is open source andhas been long in development since 2001. It is licensed under ”Eclipse Public License”
Eclipse has a lot of extensions and now has many IDEs for differentProgramming languages as well.

Installation of Selenium server in Eclipse IDE

Step-1 :- Install JDK,Eclipse IDE for ”java developers”.

Step-2 :- Download ”Chromedriver”,”selenium-java-3.13.0.zip” and ”selenium-server-standalone-3.141.59.jar”.

Step-3 :- Launch the Eclipse IDE.

Step-4 :- Create a new java project give a suitable name and save it.

Step-5 :- Eclipse IDE will open the project. Now add a new java class and give it a name.

Step-6 :- To include the libraries and ”jar” files, Unzip the zipped archives,next ”rightclick on the project icon →BuildP ath →Conf igureBuildP ath..”

Step-7 :- Here we will choose ”Add External JARs...” button and navigate to the ”.jar” file we downloaded/extracted and select them to include in our project. Software

Step-8 :- Save the configuration. You have successfully installed selenium for java. Step-9 :- For linking the chrome driver you need to include it in the code by adding a line

System.setProperty("webdriver.chrome.driver","chromedriver path");

Testing a Website using selenium(java) in eclipsed IDE

Step-1 :- Import all the important classes we need from the jar packages we included earlier.

import org.openqa.selenium.By;

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

Step-2 :- Next we will set the path property for chromedriver.

Step-3 :- Next Create a WebDriver object for accessing web contents.

Step-4 :- Use ”WebDriver.get()” method to get the base URL .

Step-5 :- we can manipulate the browser DOM elements using ”WebDriver.manage() method”.

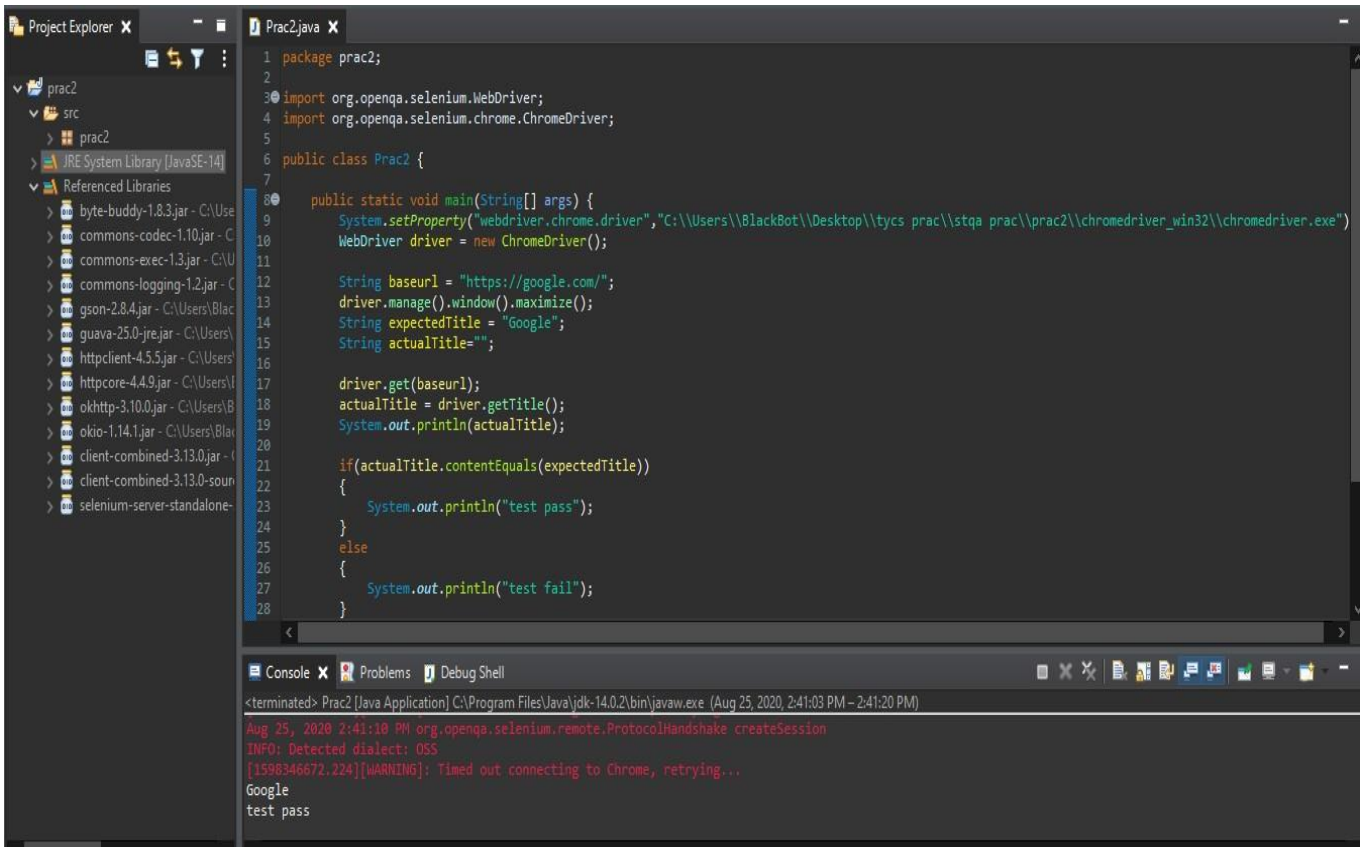
Step-6 :- Next we have a lot of methods to fetch data from the webpage and we can also manipulate them for the ”By” class.

Step-7 :- Once you are done with the testing close the window using ’WebDriver.close()” method.

Step-8 :- The base URL can be any site hosted either on localserver or on the world wide web.

Code

2A. Test on an External website



2B. Test on an Local Webpage

Prac2.java | Prac2b.java

```
package prac2;

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

public class Prac2b {

    static String driverPath = "C:\\\\Users\\\\BlackBot\\\\Desktop\\\\tycs prac\\\\stqa prac\\\\prac2\\\\chromedriver_win32\\\\chromedriver.exe";

    public static void main(String[] args) {

        System.out.println("hello");
        String actualTitle , expectedTitle;
        actualTitle=null;
        expectedTitle = "welcome page";

        System.setProperty("webdriver.chrome.driver" , driverPath);
        WebDriver driver = new ChromeDriver();

        String baseurl = "C:\\Users\\BlackBot\\Desktop\\tycs prac\\stqa prac\\prac2\\prac2b\\user.html";

        driver.get(baseurl);
        driver.findElement(By.name("user")).clear();
        driver.findElement(By.name("user")).sendKeys("krunal");

        driver.findElement(By.name("password")).clear();
        driver.findElement(By.name("password")).sendKeys("713");

        driver.findElement(By.name("sub")).click();

        actualTitle = driver.getTitle();
```

Prac2.java | Prac2b.java

```
        driver.findElement(By.name("user")).clear();
        driver.findElement(By.name("user")).sendKeys("krunal");

        driver.findElement(By.name("password")).clear();
        driver.findElement(By.name("password")).sendKeys("713");

        driver.findElement(By.name("sub")).click();

        actualTitle = driver.getTitle();

        if(actualTitle.equals(expectedTitle))
        {
            System.out.println("title matching");
            System.out.println("test case passed successfully");

        }
        else
        {
            System.out.println("title not matched");
            System.out.println("test case failed");
        }

        try {
            Thread.sleep(4000);

        }
        catch(Exception e)
        {

    }
        driver.close();
    }
}
```

Console | Problems | Debug Shell

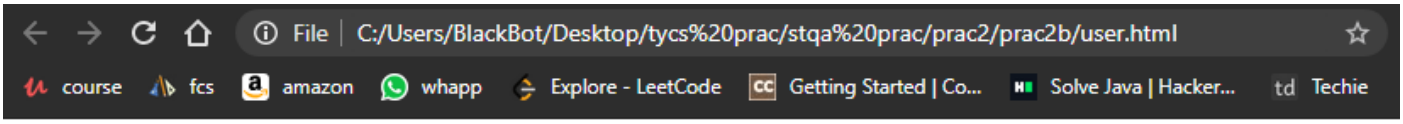
```
<terminated> Prac2b [Java Application] C:\Program Files\Java\jdk-14.0.2\bin\javaw.exe (Aug 25, 2020, 3:51:28 PM – 3:51:40 PM)
hello
Starting ChromeDriver 2.41.578737 (49da6702b16031c40d63e5618de03a32ff6c197e) on port 35690
Only local connections are allowed.
[1598350893.198][WARNING]: Timed out connecting to Chrome, retrying...
Aug 25, 2020 3:51:35 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: OSS
title matching
test case passed successfully
```

User.html

```
<!DOCTYPE html>
<html>
<body>
<h2>prac 2 </h2>
<form action="welcome.html">
  <label for="fname">First name:</label><br>
  <input type="text" id="fname" name="user"><br>
  <label for="lname">Last name:</label><br>
  <input type="password" id="lname" name="password"><br><br>
  <input type="submit" value="Submit" name="sub" >
</form>
</body>
</html>
```

Welcome.html

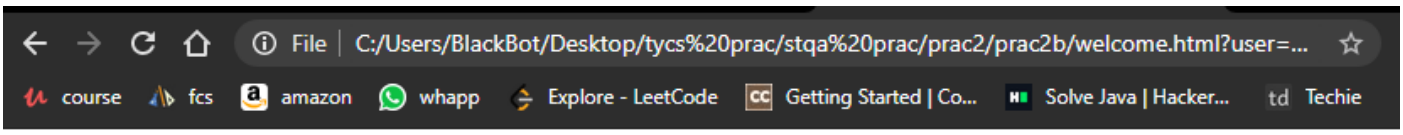
```
<!DOCTYPE html>
<html>
<head>
<title> welcome page </title>
</head>
<body>
<h2>welcome page</h2>
</body>
</html>
```



prac 2

First name:
kunal
Last name:
•••

Submit



welcome page

Date: 04/09/2020

Practical no 3

AIM: Write and test a program to login a specific web page using JUnit.

Theory

What is Junit

The JUnit Platform serves as a foundation for launching testing frameworks on the JVM. It also defines the TestEngine API for developing a testing framework that runs on the platform. Furthermore, the platform provides a Console Launcher to launch the platform from the command line and a JUnit 4 based Runner for running any TestEngine on the platform in a JUnit 4 based environment. First-class support for the JUnit Platform also exists in popular IDEs like eclipse.

Annotations Used in Junit

@Test Denotes that a method is a test method. Unlike JUnit 4's @Test annotation, this annotation does not declare any attributes, since test extensions in JUnit Jupiter operate based on their own dedicated annotations. Such methods are inherited unless they are overridden.

@BeforeAll Denotes that the annotated method should be executed before all @Test, @RepeatedTest, @ParameterizedTest, and @TestFactory methods in the current class; analogous to JUnit 4's @BeforeClass.

@AfterAll Denotes that the annotated method should be executed after all @Test, @RepeatedTest, @ParameterizedTest, and @TestFactory methods in the current class; analogous to JUnit 4's @AfterClass.

@BeforeEach Denotes that the annotated method should be executed before each @Test, @RepeatedTest, @ParameterizedTest, or @TestFactory method in the current class; analogous to JUnit 4's @Before. Such methods are inherited unless they are overridden.

@AfterEach Denotes that the annotated method should be executed after each @Test, @RepeatedTest, @ParameterizedTest, or @TestFactory method in the current class; analogous to JUnit 4's @After. Such methods are inherited unless they are overridden.

Steps for Testing a site using Junit

Step-1 :- Create a new Project and give it a name.

Step-2 :- After the initialization create a new package inside the project and give it a name.

Step-3 :- To include the libraries and ”jar” files, Unzip the zipped archives,next ”right click on the project icon → BuildP ath → Conf igureBuildP ath..”

Step-4 :- Here we will choose ”Add External JARs...” button and navigate to the ”.jar” file we downloaded/extracted and select them to include in our project.

Step-5 :- Save the configuration. You have successfully installed selenium for java.

Step-6 :- For linking the chrome driver you need to include it in the code by adding a Line System.setProperty("webdriver.chrome.driver","chromedriver path");

Step-7 :- Next create a new JUnit Test Case file give it a name.

Step-8 :- Import the following libraries

```
import org.junit.Test;
import org.openqa.selenium.By;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.WebDriver;
import static org.junit.Assert.*;
import org.junit.Before;
import org.junit.After;
import junit.framework.Assert;
```

Step-9 :- Add the code.

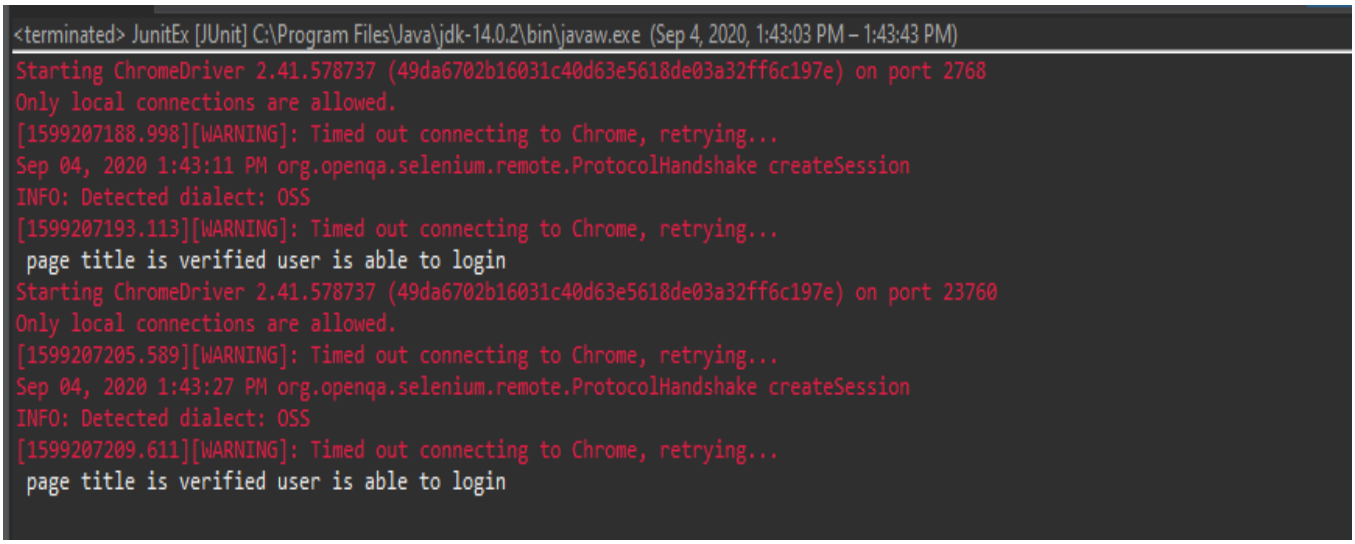
Code:-

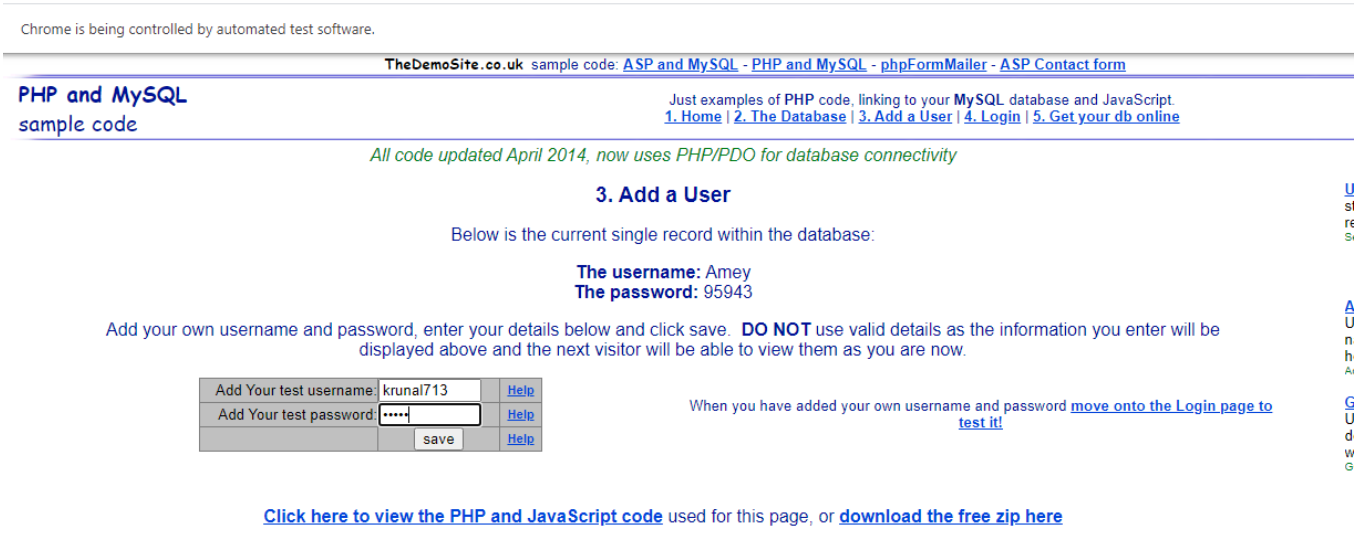
```
import static org.junit.Assert.*;
import org.junit.After;
import org.junit.Assert;
import org.junit.Before;
import org.junit.Test;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;

public class JunitEx {
        WebDriver driver = null;
        @Before
```

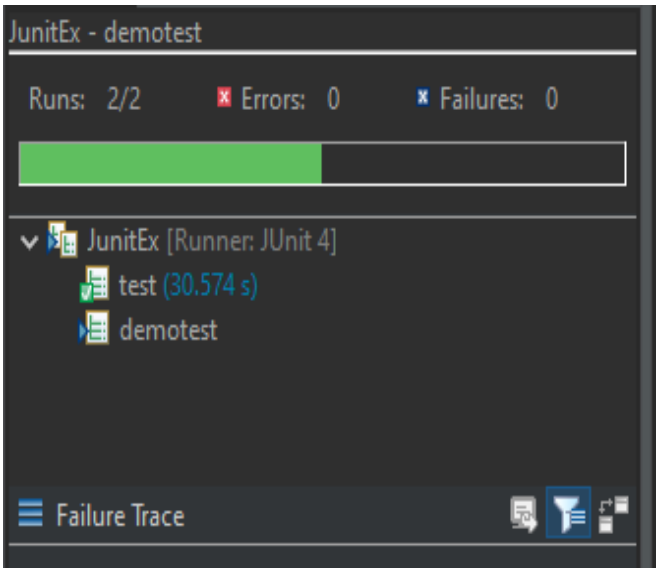
```
	public void setup() {
		System.setProperty("webdriver.chrome.driver" , "E:\\tycs\\stqa prac\\prac3\\chromedriver_win32\\chromedriver.exe" );
		driver = new ChromeDriver();
		driver.manage().window().maximize();
	}

	@Test
	public void test() throws InterruptedException {

		driver.get("http://thedemosite.co.uk/savedata.php");
		driver.findElement(By.xpath("//input[@name='username']")).sendKeys("krunal71");
		Thread.sleep(1000);
		driver.findElement(By.xpath("//input[@name='password']")).sendKeys("kd713");
		Thread.sleep(1000);
		driver.findElement(By.xpath("//input[@name='FormsButton2']")).click();
		Thread.sleep(1000);
		Thread.sleep(2000);
		Assert.assertTrue("invalid credential" , driver.getTitle().contains("Add a user - FREE PHP code and SQL"));
		System.out.println(" page title is verified user is able to login ");
		}

	@Test
	public void demotest() throws InterruptedException {

		driver.get("http://demo.guru99.com/test/newtours/");
		driver.findElement(By.xpath("//input[@name='userName']")).sendKeys("krunal713");
		Thread.sleep(1000);
		driver.findElement(By.xpath("//input[@name='password']")).sendKeys("kd713");
		Thread.sleep(1000);
		driver.findElement(By.xpath("//input[@name='submit']")).click();
		Thread.sleep(1000);
		Thread.sleep(2000);
		Assert.assertTrue("invalid credential" , driver.getTitle().contains("Welcome: Mercury Tours"));
		System.out.println(" page title is verified user is able to login ");
		}
```

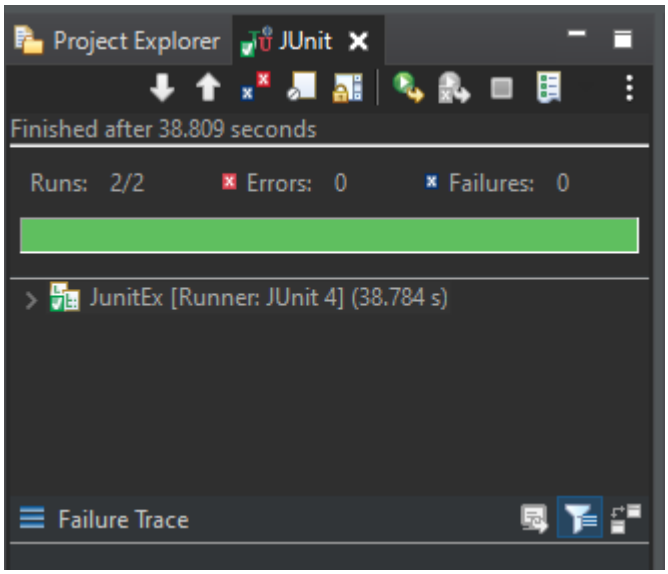
```
        @After
        public void aftertest(){
                driver.quit();
        }
}
```

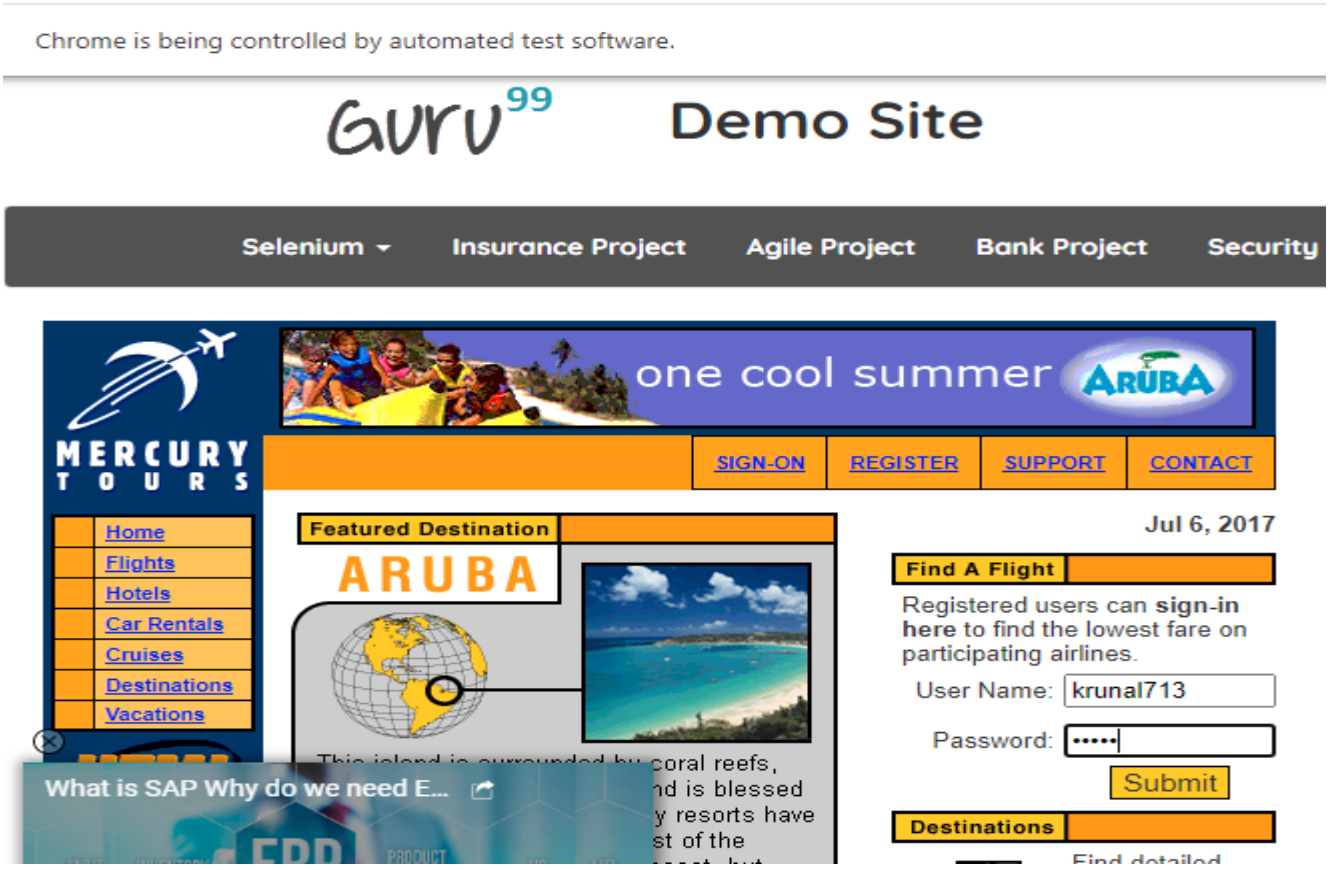
Output:






JunitEx - demotest
Runs: 2/2
Errors: 0
Failures: 0
JunitEx [Runner: JUnit 4]
test (30.574 s)
demotest
Failure Trace


Project Explorer
JUnit
Finished after 38.809 seconds
Runs: 2/2
Errors: 0
Failures: 0
JunitEx [Runner: JUnit 4] (38.784 s)
Failure Trace


Chrome is being controlled by automated test software.
Guru99 Demo Site
Selenium
Insurance Project
Agile Project
Bank Project
Security
MERCURY TOURS
one cool summer
ARUBA
SIGN-ON
REGISTER
SUPPORT
CONTACT
Home
Flights
Hotels
Car Rentals
Cruises
Destinations
Vacations
Featured Destination
ARUBA
Jul 6, 2017
Find A Flight
Registered users can sign-in here to find the lowest fare on participating airlines.
User Name: krunal713
Password:
Submit
Destinations
What is SAP Why do we need E...

Date:08/09/2020

Practical no 4

AIM: Write and test a program to update 10 student records into table into Excel file using TestNG.

Theory

What is testNG

TestNG is a testing framework for the Java programming language created by C´edric Beust and inspired by JUnit and NUnit. The design goal of TestNG is to cover a wider range of test categories: unit, functional, end-to-end, integration, etc., with more powerful and easy-to-use functionalities.

Annotations in TestNG:-

@BeforeSuite: The annotated method will be run before all tests in this suite have run.
@AfterSuite: The annotated method will be run after all tests in this suite have run.
@BeforeTest: The annotated method will be run before any test method belonging to the classes inside the ¡test¿ tag is run.
@AfterTest: The annotated method will be run after all the test methods belonging to the classes inside the ¡test¿ tag have run.
@Test: Marks a class or a method as part of the test.

Jxl Library Functions :

Workbook : Represents a Workbook. Contains the various factory methods and provides a variety of accessors which provide access to the work sheets.
WritableWorkbook : A writable workbook.
Sheet: Represents a sheet within a workbook. Provides a handle to the individual cells, or lines of cells (grouped by Row or Column).
WriteableSheet;Interface for a worksheet that may be modified. The most important modification for a sheet is to have cells added to it
Label : A cell containing text which may be created by user applications.

Steps to install TestNG

Step-1 :- Create a new Project and give it a name.

Step-2 :- After the initialization create a new package inside the project and give it a name.

Step-3 :- To include the libraries and ”jar” files, Unzip the zipped archives,next ”right click on the project icon → BuildP ath → Conf igureBuildP ath..”

Step-4 :- Here we will choose ”Add External JARs...” button and navigate to the ”.jar” file we downloaded/extracted and select them to include in our project.

Step-5 :- To add TestNG to eclipse navigate to help → InstallNewSof tware...

Step-6 :- Next add the TestNG URL
http://dl.bintray.com/testng-team/testng-eclipse-release/ and
save it as a new source in eclipse.

Step-7 :- Wait for the software repository to fetch all the package data.

Step-8 :- Select TestNG package and all of its sub-packages /dependencies.

Step-9 :- Let the package manager calculate and download the dependencies and requirements.

Step-10 :- Accept the License agreement and finish the installation.

Step-11 :- Next to add a TestNG window to eclipse click on window → showview → java → T estNG.

Step-12 :- Right click on the project and add a new TestNG class to the project with a suitable name.

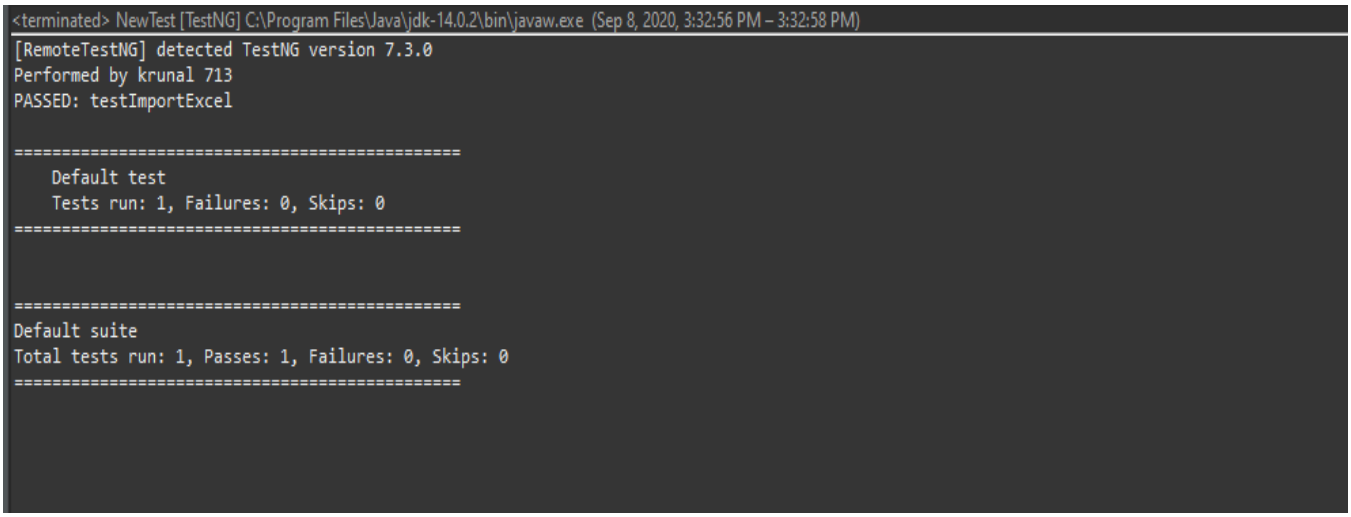
Step-13 :- Add the TestNG Library to your project as well.

Code

```
import java.io.FileInputStream;
import java.io.FileOutputStream;
import org.testng.annotations.Test;
import jxl.*;
import jxl.read.biff.BiffException;
import jxl.write.*;
import jxl.write.biff.RowsExceededException;
import java.io.*;

public class NewTest {

@Test
public void testImportExcel() throws IOException, BiffException , RowsExceededException , WriteException
{
  FileInputStream fi = new FileInputStream("E:\\tycs\\stqa prac\\prac4\\Student.xls");
  Workbook w = Workbook.getWorkbook(fi);
  Sheet s = w.getSheet(0);
  String a[][] = new String[s.getRows()][s.getColumns()];
  FileOutputStream fo = new FileOutputStream("E:\\tycs\\stqa prac\\prac4\\Output.xls");
  WritableWorkbook wwb = Workbook.createWorkbook(fo);
  WritableSheet ws = wwb.createSheet("result", 0);
  System.out.println("Performed by krunal 713");
  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> 40)
    {
```

```
    Label l1 = new Label(6 , i , "pass");
   ws.addCell(l1);

  }
 else
  {
    Label l1 = new Label(6 , i , "fail");
    ws.addCell(l1);
    break;
  }
 }
}

 wwb.write();
 wwb.close();
 }
}
```

Output:



	A	B	C	D	E	F	G	H
1	ROLL NO	NAME	WS	STQA	INS	TOTAL		
2	1	krunal	65	60	50	175		
3	2	kunal	30	30	30	90		
4	3	mayur	55	55	60	170		
5	4	deva	50	45	65	160		
6	5	hemanth	45	50	65	160		
7	6	abhishek	50	45	60	155		
8	7	lara	55	60	55	170		
9	8	shravani	60	65	50	175		
10	9	sakshi	65	55	45	165		
11	10	subin	60	50	40	150		
12	11	tejas	55	45	50	150		
13	12	vaibha	50	60	55	165		
14								
15								

	A	B	C	D	E	F	G	H
1	ROLL NO	NAME	WS	STQA	INS	TOTAL	Result	
2	1	krunal	65	60	50	175	pass	
3	2	kunal	30	30	30	90	fail	
4	3	mayur	55	55	60	170	pass	
5	4	deva	50	45	65	160	pass	
6	5	hemanth	45	50	65	160	pass	
7	6	abhishek	50	45	60	155	pass	
8	7	lara	55	60	55	170	pass	
9	8	shravani	60	65	50	175	pass	
10	9	sakshi	65	55	45	165	pass	
11	10	subin	60	50	40	150	fail	
12	11	tejas	55	45	50	150	pass	
13	12	vaibha	50	60	55	165	pass	
14								
15								

Date:- 09/10/2020

Practical no 5

AIM: Write and test a program to select the number of students who have scored more than 60 in any one subject

Theory

What is testNG

TestNG is a testing framework for the Java programming language created by C´edric Beust and inspired by JUnit and NUnit. The design goal of TestNG is to cover a wider range of test categories: unit, functional, end-to-end, integration, etc., with more powerful and easy-to-use functionalities.

Annotations in TestNG

@BeforeSuite: The annotated method will be run before all tests in this suite have run.

@AfterSuite: The annotated method will be run after all tests in this suite have run.

@BeforeTest: The annotated method will be run before any test method belonging to the classes inside the ¡test¿ tag is run.

@AfterTest: The annotated method will be run after all the test methods belonging to the classes inside the ¡test¿ tag have run.

@Test: Marks a class or a method as part of the test.

Jxl Library Functions :

Workbook : Represents a Workbook. Contains the various factory methods and provides a variety of accessors which provide access to the work sheets.

WritableWorkbook : A writable workbook.

Sheet: Represents a sheet within a workbook. Provides a handle to the individual cells, or lines of cells (grouped by Row or Column).

WriteableSheet : Interface for a worksheet that may be modified. The most important modification for a sheet is to have cells added to it

Label : A cell containing text which may be created by user applications.

Steps to install TestNG

Step-1 :- Create a new Project and give it a name.

Step-2 :- After the initialization create a new package inside the project and give it a name.

Step-3 :- To include the libraries and ”jar” files, Unzip the zipped archives,next ”right click on the project icon → BuildP ath → Conf igureBuildP ath..”

Step-4 :- Here we will choose ”Add External JARs...” button and navigate to the ”.jar” file we downloaded/extracted and select them to include in our project.

Step-5 :- To add TestNG to eclipse navigate to help → InstallNewSof tware...

Step-6 :- Next add the TestNG URL
http://dl.bintray.com/testng-team/testng-eclipse-release/ and
save it as a new source in eclipse.

Step-7 :- Wait for the software repository to fetch all the package data.

Step-8 :- Select TestNG package and all of its sub-packages /dependencies.

Step-9 :- Let the package manager calculate and download the dependencies and requirements.

Step-10 :- Accept the License agreement and finish the installation.

Step-11 :- Next to add a TestNG window to eclipse click on window → showview → java → T estNG.

Step-12 :- Right click on the project and add a new TestNG class to the project with a suitable name.

Step-13 :- Add the TestNG Library to your project as well.

Code :-

```
import java.io.FileInputStream;
import java.io.FileOutputStream;
import java.io.IOException;
import org.testng.annotations.Test;
import jxl.Sheet;
import jxl.Workbook;
import jxl.read.biff.BiffException;
import jxl.write.Label;
import jxl.write.WritableSheet;
import jxl.write.WritableWorkbook;
import jxl.write.WriteException;
import jxl.write.biff.RowsExceededException;

public class NewTest {
  @Test
  public void StudentImport() throws  IOException , BiffException , RowsExceededException ,
WriteException
{
FileInputStream fi = new FileInputStream("E:\\tycs\\stqa prac\\prac5\\Student.xls");
```

```
Workbook w = Workbook.getWorkbook(fi);
Sheet s = w.getSheet(0);
String a[][] = new String[s.getRows()][s.getColumns()];
FileOutputStream fo = new FileOutputStream("E:\\tycs\\stqa prac\\prac5\\studentdata.xls ");
WritableWorkbook wwb = Workbook.createWorkbook(fo);
WritableSheet ws = wwb.createSheet("result", 0);
int c=0;
System.out.println("performed by krunal 713");
for (int i = 0; i < s.getRows(); i++)
{
   for (int j = 0; j < s.getColumns();
  {
   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);
  }
}
 wwb.write();
 wwb.close();
 }
}
```

OUTPUT:

Problems Javadoc Declaration Console Debug Results of running class NewTest

<terminated> NewTest [TestNG] C:\Program Files\Java\jdk-14.0.2\bin\javaw.exe (Oct 9, 2020, 2:05:07 PM – 2:05:10 PM)

```
[RemoteTestNG] detected TestNG version 7.3.0
performed by krunal 713
PASSED: StudentImport

===============================================
    Default test
    Tests run: 1, Failures: 0, Skips: 0
===============================================


===============================================
Default suite
Total tests run: 1, Passes: 1, Failures: 0, Skips: 0
===============================================
```

	A	B	C	D	E	F	G	H
1	ROLL NO	NAME	WS	STQA	INS	TOTAL		
2	1	krunal	65	60	50	175		
3	2	kunal	30	30	30	90		
4	3	mayur	55	55	60	170		
5	4	deva	50	45	65	160		
6	5	hemanth	45	50	65	160		
7	6	abhishek	50	45	60	155		
8	7	lara	55	60	55	170		
9	8	shravani	60	65	50	175		
10	9	sakshi	65	55	45	165		
11	10	subin	60	50	40	150		
12	11	tejas	55	45	50	150		
13	12	vaibha	50	60	55	165		
14								
15								

	A	B	C	D	E	F	G
1	ROLL NO	NAME	WS	STQA	INS	TOTAL	
2	1	krunal	65	60	50	175	
3	7	lara	55	60	55	170	
4	8	shravani	60	65	50	175	
5	12	vaibhav	50	60	55	165	
6							
7							

Part B:-

Aim:- Write and test a program to read the data from product excel sheet and select the products which price is more than 10000

Code:-

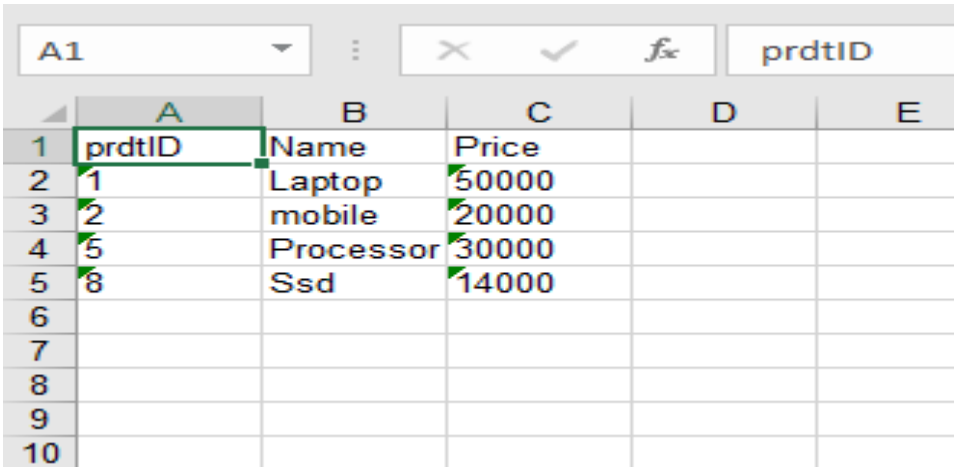
```
import java.io.FileInputStream;
import java.io.FileOutputStream;
import java.io.IOException;
import org.testng.annotations.Test;
import jxl.Sheet;
import jxl.Workbook;
import jxl.read.biff.BiffException;
import jxl.write.Label;
import jxl.write.WritableSheet;
import jxl.write.WritableWorkbook;
import jxl.write.WriteException;
import jxl.write.biff.RowsExceededException;

public class NewTest {
  @Test
  public void ProductImport() throws  IOException , BiffException , RowsExceededException ,
WriteException
{
FileInputStream fi = new FileInputStream("E:\\tycs\\stqa prac\\prac5\\product.xls");
Workbook w = Workbook.getWorkbook(fi);
Sheet s = w.getSheet(0);
String a[][] = new String[s.getRows()][s.getColumns()];
FileOutputStream fo = new FileOutputStream("E:\\tycs\\stqa prac\\prac5\\productdata.xls ");
WritableWorkbook wwb = Workbook.createWorkbook(fo);
WritableSheet ws = wwb.createSheet("result", 0);
int c=0;
System.out.println("performed by krunal 713");
for (int i = 0; i < s.getRows(); i++)
{
    for (int j = 0; j < s.getColumns();
   {
    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);
   }
 }
  wwb.write();
  wwb.close();
  }
 }
```

Output:

```
<terminated> NewTest.ProductImport [TestNG] C:\Program Files\Java\jdk-14.0.2\bin\javaw.exe  (Oct 9, 2020, 3:04:29 PM – 3:04:31 PM)
[RemoteTestNG] detected TestNG version 7.3.0
performed by krunal 713
PASSED: ProductImport

===============================================
    Default test
    Tests run: 1, Failures: 0, Skips: 0
===============================================


===============================================
Default suite
Total tests run: 1, Passes: 1, Failures: 0, Skips: 0
===============================================
```

	A	B	C	D	E
1	prdtID	Name	Price		
2	1	Laptop	50000		
3	2	mobile	20000		
4	3	keyboard	2500		
5	4	Mouse	3500		
6	5	Processor	30000		
7	6	Ram	6000		
8	7	MasterCooler	3000		
9	8	Ssd	14000		
10	9	MotherBoard	6000		
11	10	Headphones	5000		
12					
13					



A1 prdtID

	A	B	C	D	E
1	prdtID	Name	Price		
2	1	Laptop	50000		
3	2	mobile	20000		
4	5	Processor	30000		
5	8	Ssd	14000		
6					
7					
8					
9					
10					

Date:17/10/2020

Practical no 6

AIM: Write and test a program to provide total number of objects present / available on the page

Theory

WebElement : Represents an HTML element. Generally, all interesting operations to do with interacting with a page will be performed through this interface.

WebElements objects are Selenium(Java) equivalent of HTML elements in the UI such as Form, Button, Select, A, P, H0-6, etc..

java.util.List<WebElement> : This data structure allows one two list down WebElements in Java which could be sub-elements or nested elements under the selector. The object has methods such as object.size() which returns the size of the list,

object.get(index) which returns a element from the object at a specified index,
object.get(index).getText() returns the text of the element.

WebDriver.findElement(): Find the first WebElement using the given method.

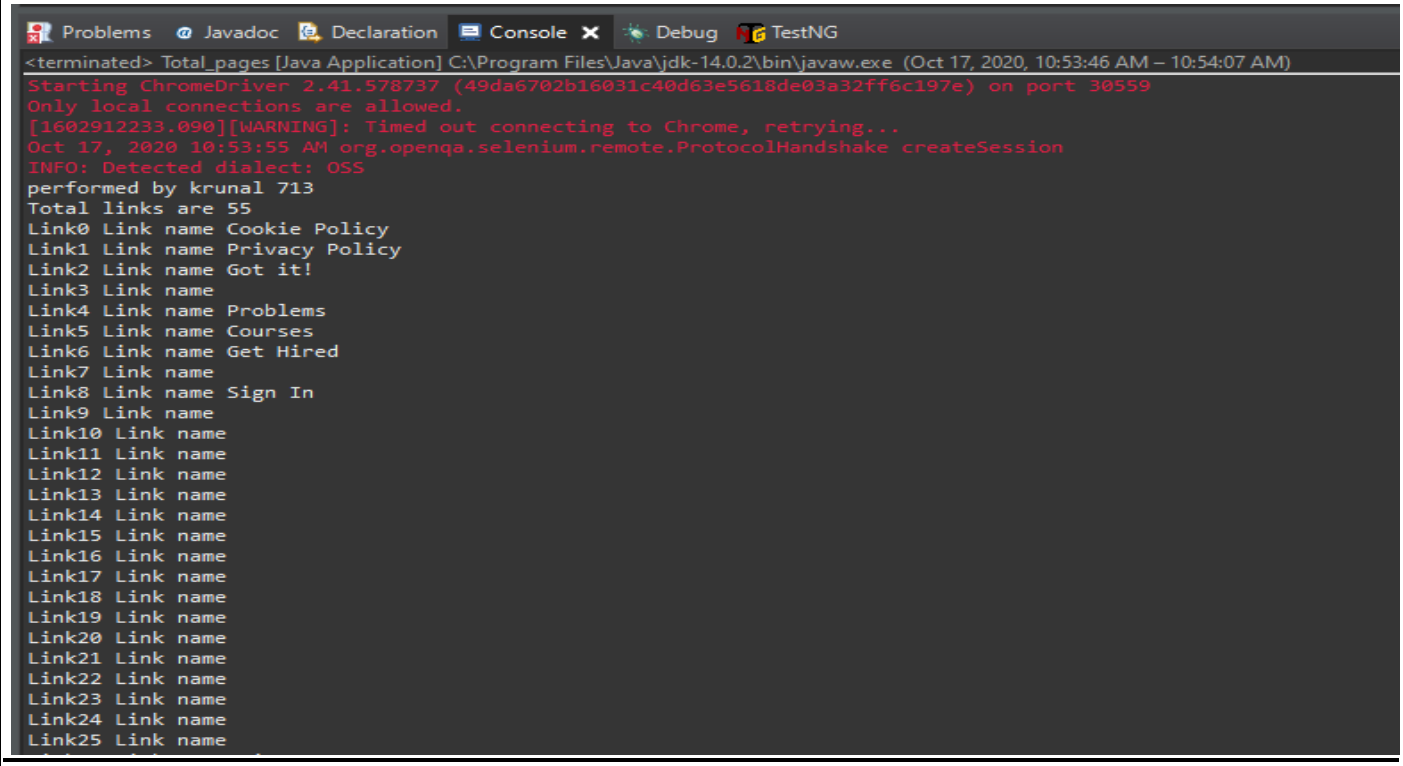
This method is affected by the 'implicit wait' times in force at the time of execution. The findElement(..) invocation will return a matching row, or try again repeatedly until the configured timeout is reached. findElement should not be used to look for non-present elements, use findElements(By) and assert zero length response instead.

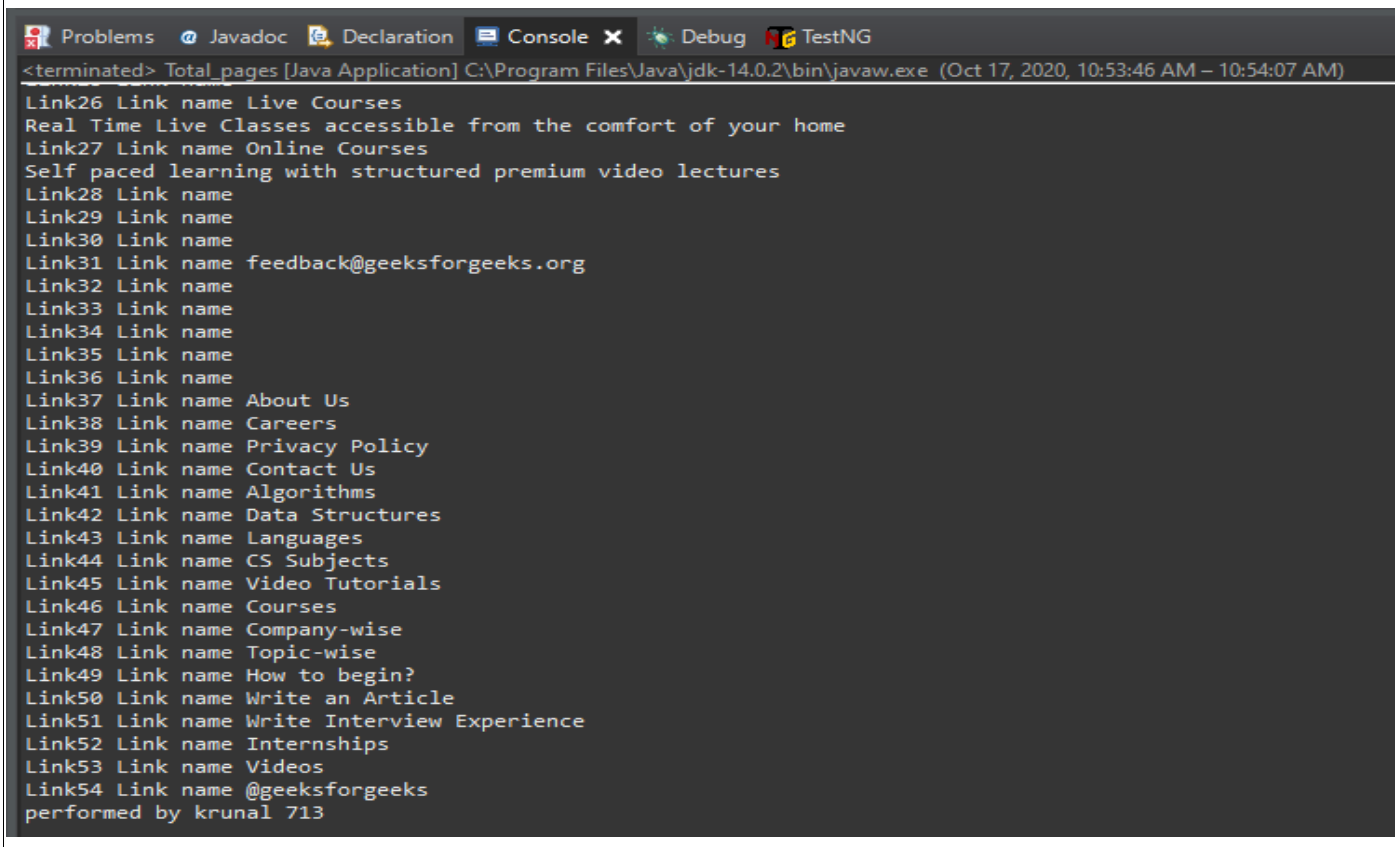
By.tagName() : By is a mechanism used to locate elements within a document from selenium code. This allows us to access elements by multiple ways such as tag names, ids, names, class names, etc.. Here we use By.tagName() to select HTML elements through specified tag name.

Code:

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

public class Total_pages {

                                        static String drivePath = "E:\\tycs\\stqa
prac\\prac2\\chromedriver_win32\\chromedriver.exe";
                                        public static WebDriver driver;
                                        public static void main(String[] args) {
                                          System.setProperty("webdriver.chrome.driver" ,
drivePath);
                                          driver = new ChromeDriver();
                                          driver.get("https://practice.geeksforgeeks.org/");
                                          java.util.List<WebElement> link =
driver.findElements(By.tagName("a"));
                                          System.out.println("performed by krunal 713");
                                          System.out.println("Total links are " + link.size());
                                          for(int i =0; i < link.size() ; i++)
                                          {
                                                  System.out.println("Link" + i +" Link name "+
link.get(i).getText());
                                          }
                                          System.out.println("performed by krunal 713");
                                          driver.close();
                                        }
}
```

Output:-


Problems
Javadoc
Declaration
Console
Debug
TestNG
<terminated> Total_pages [Java Application] C:\Program Files\Java\jdk-14.0.2\bin\javaw.exe (Oct 17, 2020, 10:53:46 AM – 10:54:07 AM)
Starting ChromeDriver 2.41.578737 (49da6702b16031c40d63e5618de03a32ff6c197e) on port 30559
Only local connections are allowed.
[1602912233.090][WARNING]: Timed out connecting to Chrome, retrying...
Oct 17, 2020 10:53:55 AM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: OSS
performed by krunal 713
Total links are 55
Link0 Link name Cookie Policy
Link1 Link name Privacy Policy
Link2 Link name Got it!
Link3 Link name
Link4 Link name Problems
Link5 Link name Courses
Link6 Link name Get Hired
Link7 Link name
Link8 Link name Sign In
Link9 Link name
Link10 Link name
Link11 Link name
Link12 Link name
Link13 Link name
Link14 Link name
Link15 Link name
Link16 Link name
Link17 Link name
Link18 Link name
Link19 Link name
Link20 Link name
Link21 Link name
Link22 Link name
Link23 Link name
Link24 Link name
Link25 Link name


Problems
Javadoc
Declaration
Console
Debug
TestNG
<terminated> Total_pages [Java Application] C:\Program Files\Java\jdk-14.0.2\bin\javaw.exe (Oct 17, 2020, 10:53:46 AM – 10:54:07 AM)
Link26 Link name Live Courses
Real Time Live Classes accessible from the comfort of your home
Link27 Link name Online Courses
Self paced learning with structured premium video lectures
Link28 Link name
Link29 Link name
Link30 Link name
Link31 Link name feedback@geeksforgeeks.org
Link32 Link name
Link33 Link name
Link34 Link name
Link35 Link name
Link36 Link name
Link37 Link name About Us
Link38 Link name Careers
Link39 Link name Privacy Policy
Link40 Link name Contact Us
Link41 Link name Algorithms
Link42 Link name Data Structures
Link43 Link name Languages
Link44 Link name CS Subjects
Link45 Link name Video Tutorials
Link46 Link name Courses
Link47 Link name Company-wise
Link48 Link name Topic-wise
Link49 Link name How to begin?
Link50 Link name Write an Article
Link51 Link name Write Interview Experience
Link52 Link name Internships
Link53 Link name Videos
Link54 Link name @geeksforgeeks
performed by krunal 713

Date:17/10/2020

Practical no 7

AIM: Write and test a program to get the number of items in a DropDownlist / combo box.

Theory

WebElement : Represents an HTML element. Generally, all interesting operations to do with interacting with a page will be performed through this interface. WebElements objects are Selenium(Java) equivalent of HTML elements in the UI such as Form, Button, Select, A, P, H0-6, etc..

org.openqa.selenium.support.ui.Select : Models a SELECT tag, providing helper methods to select and deselect options.

java.util.List : This data structure allows one two list down WebElements in Java which could be sub-elements or nested elements under the selector. The object has methods such as **object.size()** which returns the size of the list, **Selectobject.getOptions()** which returns a select option element from the object.

Select.selectByVisibleText() : Select all options that display text matching the argument. That is, when given ”Bar” this would select an option like: Bar .

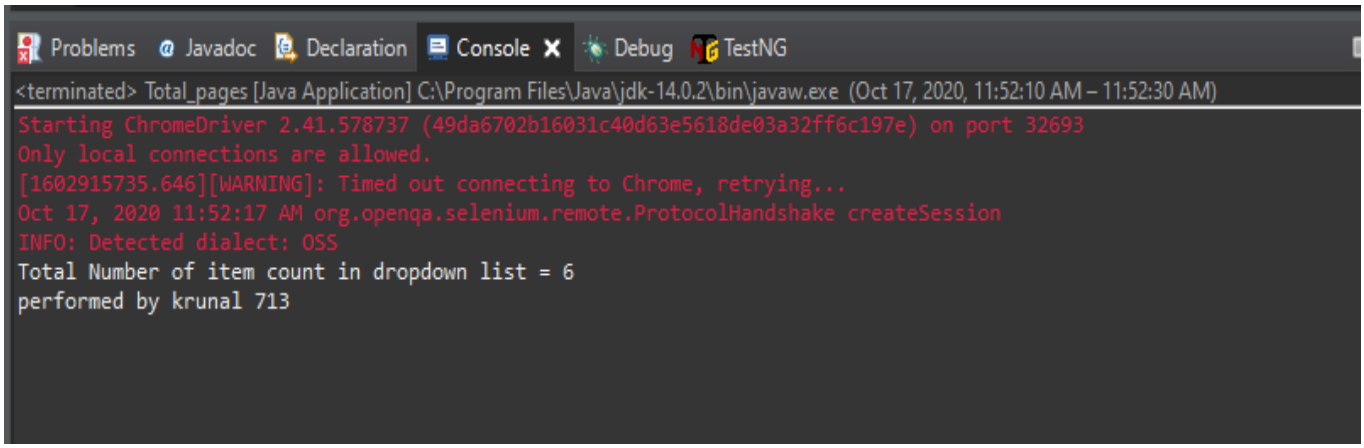
Select.selectByIndex(): Select the option at the given index. This is done by examining the ”index” attribute of an element, and not merely by counting.

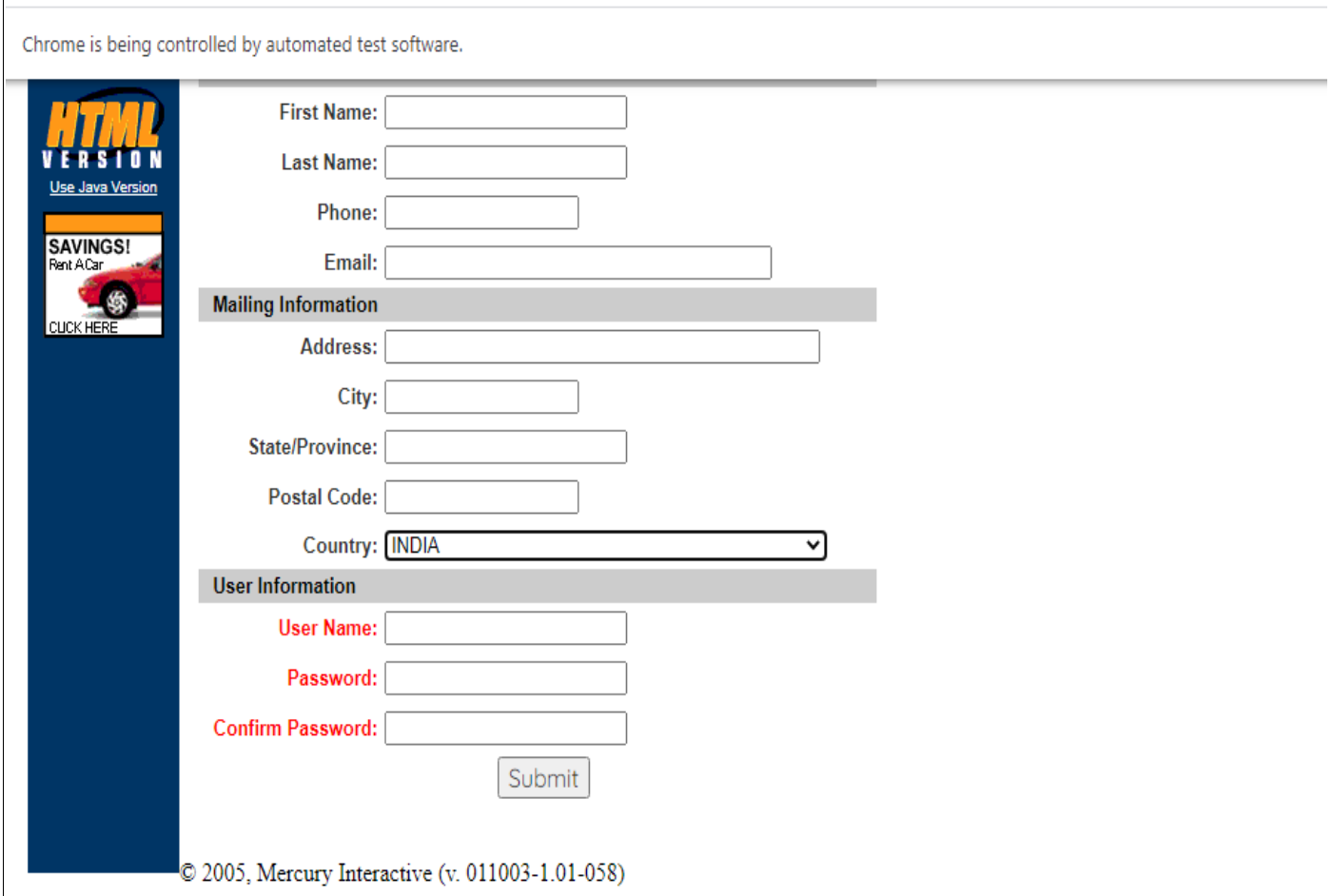
Code:

Part A

```
package prac77;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.support.ui.Select;
import java.util.List;
import org.openqa.selenium.WebElement;

public class Prac7 {
	static String driverPath="E:\\tycs\\stqa prac\\prac2\\chromedriver_win32\\chromedriver.exe";
	public static void main(String[] args) {
		System.setProperty("webdriver.chrome.driver", driverPath);
		WebDriver driver= new ChromeDriver();
		driver.get("E:/tycs/stqa%20prac/prac7/index.html");
		Select selectDropdown = new Select(driver.findElement(By.id("bikes")));
		List<WebElement> listOptionDropdown = selectDropdown.getOptions();
		int dropdownCount = listOptionDropdown.size();
		System.out.println("Total Number of item count in dropdown list = "  +
dropdownCount);
		driver.close();
		System.out.println("performed by krunal 713");
		}
}
```

Output:-

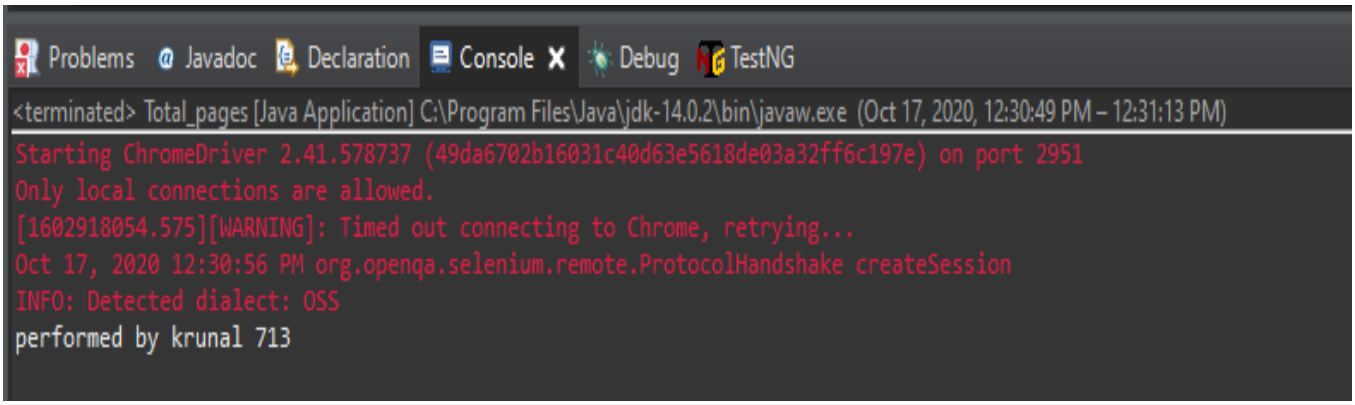

Problems
Javadoc
Declaration
Console
Debug
TestNG
<terminated> Total_pages [Java Application] C:\Program Files\Java\jdk-14.0.2\bin\javaw.exe (Oct 17, 2020, 11:52:10 AM – 11:52:30 AM)
Starting ChromeDriver 2.41.578737 (49da6702b16031c40d63e5618de03a32ff6c197e) on port 32693
Only local connections are allowed.
[1602915735.646][WARNING]: Timed out connecting to Chrome, retrying...
Oct 17, 2020 11:52:17 AM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: OSS
Total Number of item count in dropdown list = 6
performed by krunal 713

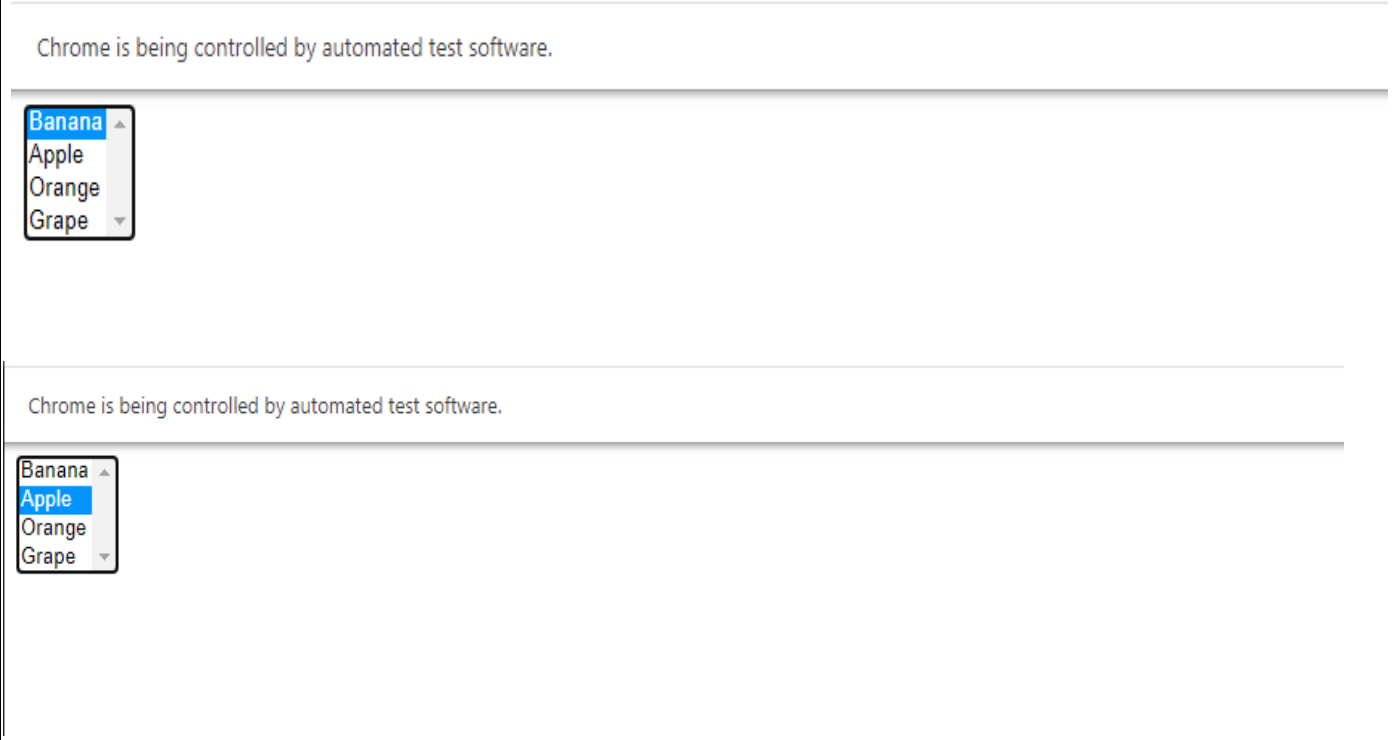

Chrome is being controlled by automated test software.
HTML VERSION
Use Java Version
SAVINGS!
Rent A Car
CLICK HERE
First Name:
Last Name:
Phone:
Email:
Mailing Information
Address:
City:
State/Province:
Postal Code:
Country:
INDIA
User Information
User Name:
Password:
Confirm Password:
Submit
© 2005, Mercury Interactive (v. 011003-1.01-058)

Part-B

```
package stqapracccc;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.support.ui.Select;

public class Total_pages {
	static String driverPath="E:\\tycs\\stqa prac\\prac2\\chromedriver_win32\\chromedriver.exe";
	public static void main(String[] args) throws InterruptedException {
		//----PART2A ---------//
		System.setProperty("webdriver.chrome.driver", driverPath);

		String baseUrl = "http://demo.guru99.com/test/newtours/register.php";
		WebDriver driver= new ChromeDriver();
		driver.get(baseUrl);
		Select drpCountry = new Select(driver.findElement(By.name("country")));
		drpCountry.selectByVisibleText("INDIA");
		Thread.sleep(8000);

		//----PART2B ---------//
		driver.get("http://jsbin.com/osebed/2");
		Select fruits = new Select(driver.findElement(By.id("fruits")));
		fruits.selectByVisibleText("Banana");
		fruits.deselectByIndex(1);
		Thread.sleep(8000);
		driver.close();
		System.out.println("performed by krunal 713");
		}
}
```

Output




Chrome is being controlled by automated test software.
Banana
Apple
Orange
Grape
Chrome is being controlled by automated test software.
Banana
Apple
Orange
Grape

Date:20/10/2020

Practical no 8

AIM: Write and test a program to count the number of check boxes on the page checked and unchecked count.

Theory :

Xpath

XPath stands for XML Path Language. It uses a non-XML syntax to provide a flexible way of addressing (pointing to) different parts of an XML document. It can also be used to test addressed nodes within a document to determine whether they match a pattern or not.

XPath is mainly used in XSLT, but can also be used as a much more powerful way of navigating through the DOM of any XML-like language document using XPathExpression, such as HTML and SVG, instead of relying on the Document.getElementById() or ParentNode.querySelectorAll() methods, the Node.childNodes properties, and other DOM Core features.

XPath uses a path notation (as in URLs) for navigating through the hierarchical structure of an XML document. It uses a non-XML syntax so that it can be used in URIs and XML attribute values.

Xpath Syntax

XPath contains the path of the element situated at the web page. Standard syntax for creating XPath is.

Xpath = //tagname[@attribute =0 value0]

Literal	Description
// :	Select current node.
Tagname:	Tagname of the particular node.
@:	Select attribute.
Attribute:	Attribute name of the node
Value:	Value of the attribute.

Types of Xpath

There are two types of xpath:

1. Absolute xpath : It is the direct way to find the element, but the disadvantage of the absolute XPath is that if there are any changes made in the path of the element then that XPath gets failed. The key characteristic of XPath is that it begins with the single forward slash(/) ,which means you can select the element from the root node.

Example: /html/body/div[2]/div[1]/div/h4[1]/b/html[1]/body[1]/div[2]/div[1]/div[1]/h4[1]/b[1]

2. Relative xpath : Relative Xpath starts from the middle of HTML DOM structure. It starts with double forward slash (//). It can search elements anywhere on the webpage, means no need to write a long xpath and you can start from the middle of HTML DOM structure. Relative Xpath is always preferred as it is not a complete path from the root element. Below is the example of a relative XPath expression of the same element shown in the below screen. This is the common format used to find element through a relative XPath.

Example: //div[@class =0 featured − boxcloumnsize1 0]//h4[1]//b[1]

Code:

Part A

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

public class Prac8 {
	static String driverPath="E:\\tycs\\stqa prac\\prac2\\chromedriver_win32\\chromedriver.exe";
	public static void main(String[] args) throws InterruptedException {
		System.setProperty("webdriver.chrome.driver", driverPath);
		WebDriver driver= new ChromeDriver();
		//driver.get("http://www.ironspider.ca/forms/checkradio.htm");
		driver.get("http://www.echoecho.com/htmlforms09.htm");
		//driver.get("file:///E:/tycs/stqa%20prac/prac8/radio.html");
		List<WebElement> checkboxes = driver.findElements(By.xpath("//input[@type =
'checkbox']"));
		for(int i = 0 ; i<checkboxes.size() ; i=i+1)
		{
			checkboxes.get(i).click();
		}
		System.out.println("performed by krunal dhavle 713");
		int checkedCount = 0 , uncheckedCount =0;
		for(int i =0 ; i < checkboxes.size() ; i++)
		{
			System.out.println(i + " " + "checkboxes is selected :
"+checkboxes.get(i).isSelected());
			if(checkboxes.get(i).isSelected())
				checkedCount++;
			else
				uncheckedCount++;
		}
		Thread.sleep(5000);
		System.out.println("number of selected checkedboxes " + checkedCount);
		System.out.println("number of unselected checkedboxes " + uncheckedCount);
		driver.close();
	}
}
```

Output:-

HTML	EXPLANATION	EXAMPLE
checkbox name= value= align= tabindex= checked	Choose one or more options Name of the field. Value that is submitted if checked. Alignment of the field. Tab order of the field. Default check this field.	

Problems Javadoc Declaration Console Debug TestNG

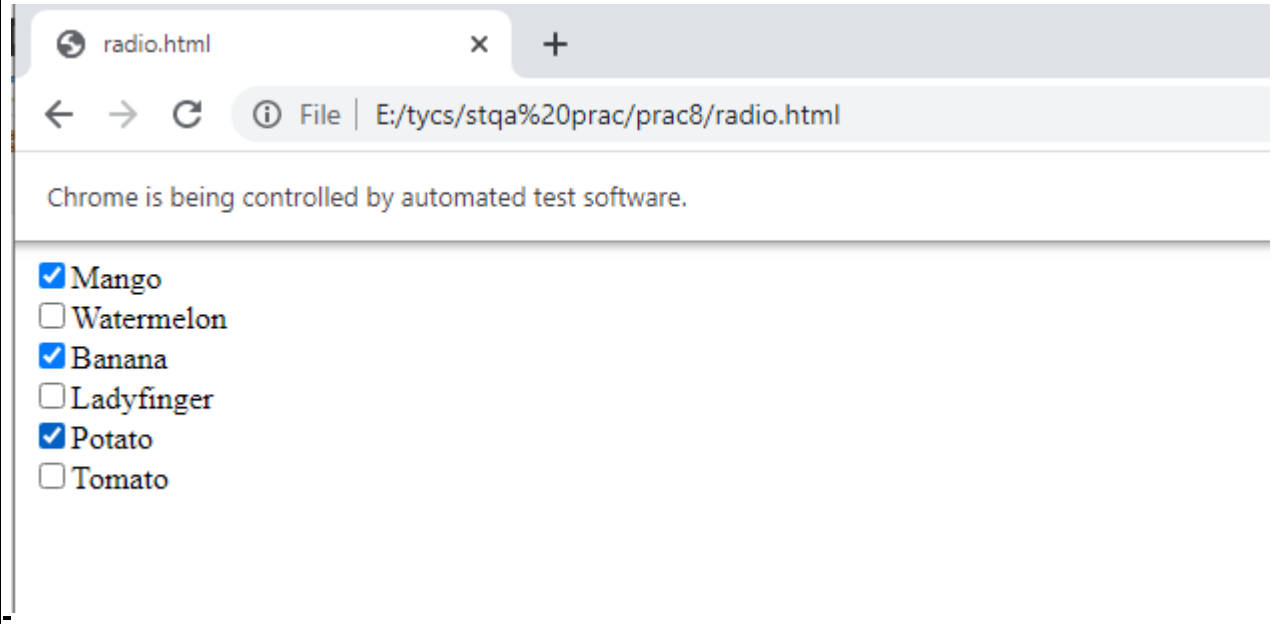
<terminated> Prac8 [Java Application] C:\Program Files\Java\jdk-14.0.2\bin\javaw.exe (Oct 20, 2020, 3:45:54 PM – 3:46:21 PM)

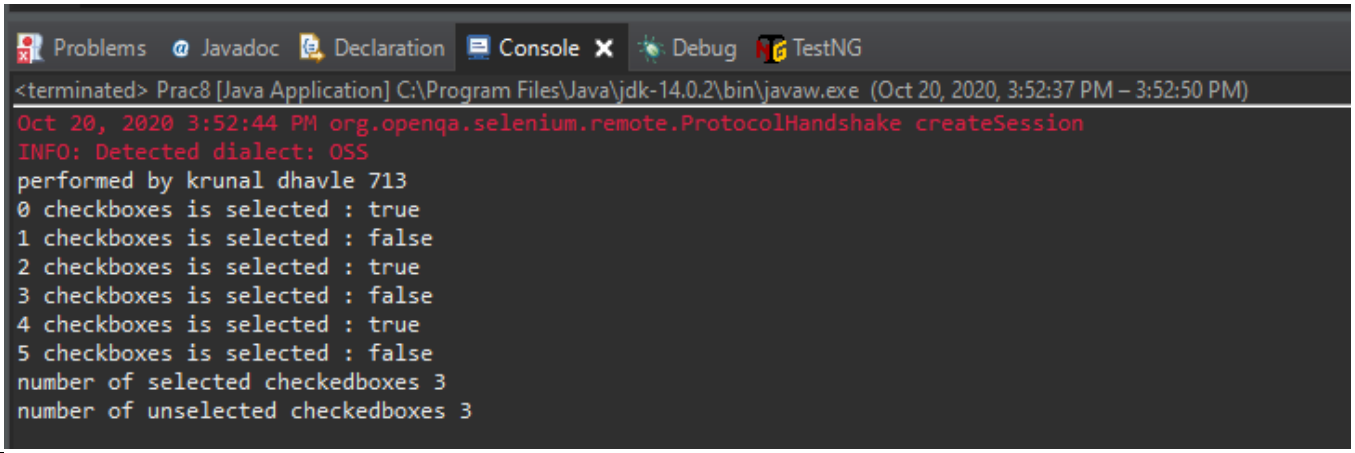
```
Oct 20, 2020 3:46:01 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: OSS
performed by krunal dhavle 713
0 checkboxes is selected : true
1 checkboxes is selected : false
2 checkboxes is selected : true
3 checkboxes is selected : true
4 checkboxes is selected : false
5 checkboxes is selected : true
number of selected checkedboxes 4
number of unselected checkedboxes 2
```

Part -2

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

public class Prac8 {
	static String driverPath="E:\\tycs\\stqa prac\\prac2\\chromedriver_win32\\chromedriver.exe";
	public static void main(String[] args) throws InterruptedException {
		System.setProperty("webdriver.chrome.driver", driverPath);
		WebDriver driver= new ChromeDriver();
		driver.get("file:///E:/tycs/stqa%20prac/prac8/radio.html");
		List<WebElement> checkboxes = driver.findElements(By.xpath("//input[@type =
'checkbox']"));
		for(int i = 0 ; i<checkboxes.size() ; i=i+2)
		{
			checkboxes.get(i).click();
		}
		System.out.println("performed by krunal dhavle 713");
		int checkedCount = 0 , uncheckedCount =0;
		for(int i =0 ; i < checkboxes.size() ; i++)
		{
			System.out.println(i + " " + "checkboxes is selected :
"+checkboxes.get(i).isSelected());
			if(checkboxes.get(i).isSelected())
				checkedCount++;
			else
				uncheckedCount++;
		}
		Thread.sleep(5000);
		System.out.println("number of selected checkedboxes " + checkedCount);
		System.out.println("number of unselected checkedboxes " + uncheckedCount);
		driver.close();
	}
}
```

Output:-


radio.html
File | E:/tycs/stqa%20prac/prac8/radio.html
Chrome is being controlled by automated test software.
Mango
Watermelon
Banana
Ladyfinger
Potato
Tomato


Problems
Javadoc
Declaration
Console
Debug
TestNG
<terminated> Prac8 [Java Application] C:\Program Files\Java\jdk-14.0.2\bin\javaw.exe (Oct 20, 2020, 3:52:37 PM – 3:52:50 PM)
Oct 20, 2020 3:52:44 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: OSS
performed by krunal dhavle 713
0 checkboxes is selected : true
1 checkboxes is selected : false
2 checkboxes is selected : true
3 checkboxes is selected : false
4 checkboxes is selected : true
5 checkboxes is selected : false
number of selected checkedboxes 3
number of unselected checkedboxes 3

Date:03/11/2020

Practical no 9

AIM: Load Testing using JMeter.

Theory:-

What is JMeter ?

Apache JMeter may be used to test performance both on static and dynamic resources, Web dynamic applications. It can be used to simulate a heavy load on a server, group of servers, network or object to test its strength or to analyze overall performance under different load types.

1. Thread Group : Thread group elements are the beginning points of any test plan. All controllers and samplers must be under a thread group. Other elements, e.g. Listeners, may be placed directly under the test plan, in which case they will apply to all the thread groups. As the name implies, the thread group element controls the number of threads JMeter will use to execute your test. The controls for a thread group allow you to:

1.1 Number of Threads : Each thread will execute the test plan in its entirety and completely independently of other test threads. Multiple threads are used to simulate concurrent connections to your server application.

1.2 Ramp-up Period : The ramp-up period tells JMeter how long to take to ”ramp-up” to the full number of threads chosen. If 10 threads are used, and the ramp-up period is 100 seconds, then JMeter will take 100 seconds to get all 10 threads up and running. Each thread will start 10 (100/10) seconds after the previous thread was begun. If there are 30 threads and a ramp-up period of 120 seconds, then each successive thread will be delayed by 4 seconds.

1.3 Loops : By default, the thread group is configured to loop once through its elements. However one can change it repeat the tests.

2. Controllers : JMeter has two types of Controllers: Samplers and Logical Controllers. These drive the processing of a test.

2.1 Samplers : Samplers tell JMeter to send requests to a server and wait for a response. They are processed in the order they appear in the tree. Controllers can be used to modify the number of repetitions of a sampler. ”HTTP Request” is one of those samplers which we use to interact with HTTP protocol to our server.

2.2 Logic Controllers : Logic Controllers let you customize the logic that JMeter uses to decide when to send requests. Logic Controllers can change the order of requests coming from their child elements. They can modify the requests themselves, cause JMeter to repeat requests, etc

3. Listeners : Listeners provide access to the information JMeter gathers about the test cases while JMeter runs. The Graph Results listener plots the response times on a graph. The ”View Results Tree” Listener shows details of sampler requests and responses, and can display basic HTML and XML representations of the response. Other listeners provide summary or aggregation information.

3.1 Results Tree : The View Results Tree shows a tree of all sample responses, allowing you to view the response for any sample. In addition to showing the response, you can see the time it took to get this response, and some response codes. Note that the Request panel only shows the headers added by JMeter. It does not show any headers (such as Host) that may be added by the HTTP protocol implementation.

3.2 Graph Results : The Graph Results listener generates a simple graph that plots all sample times. Along the bottom of the graph, the current sample (black), the current average of all samples (blue), the current standard deviation (red), and the current throughput rate (green) are displayed in milliseconds.

Pre-Installation Requirements

JDK/JRE Installation is required(Java 8 or higher)

Running the batch file may not work directly so one needs to add path of the java bin folder through the terminal and then try running the batch file.

For Linux use OpenJDK package(latest available) and mark the jar file as executable through file properties or use chmod to set execution permission.

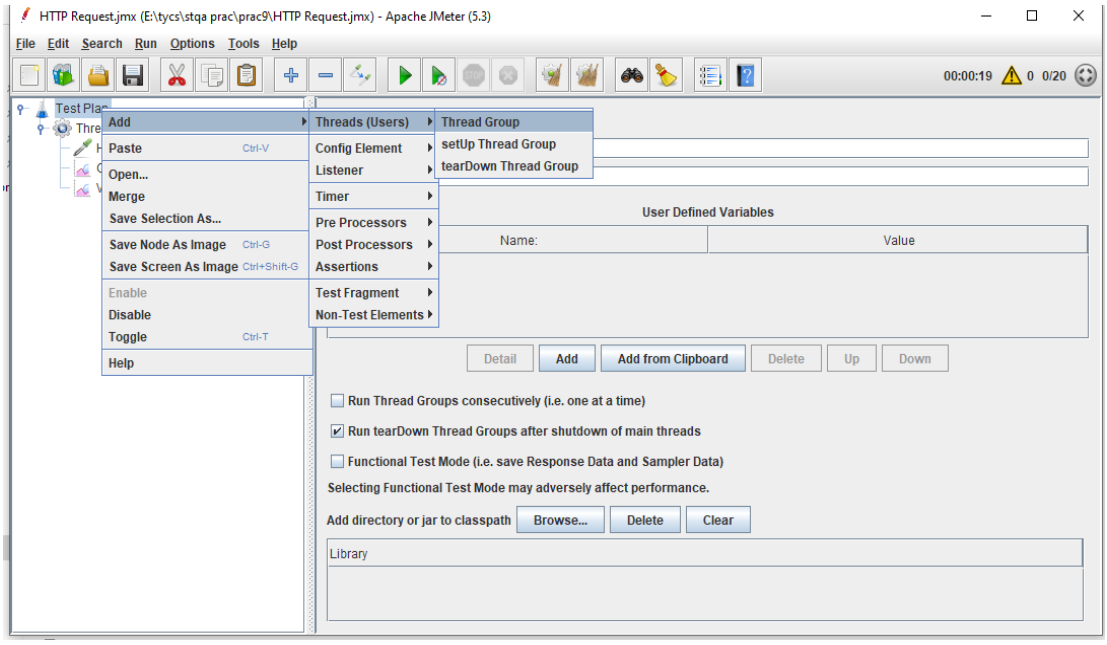
Steps:

Step-1 :- Download and Unzip Jmeter package from Apache Website.

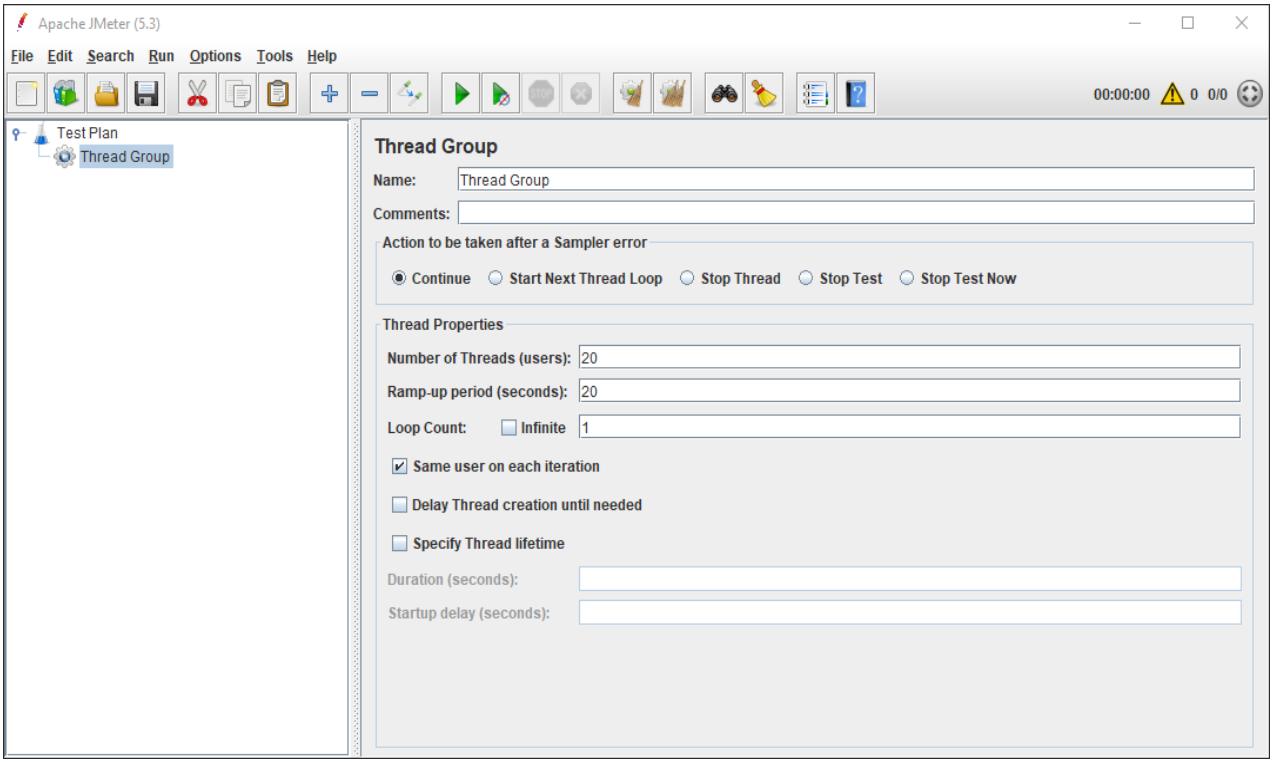
https://jmeter.apache.org/download_jmeter.cgi

Step-2 :- Navigate to bin folder and run the ”ApacheJMeter.jar” or ”jmeter.bat” file and it will launch a window. In case of error/failure refer the Pre-Installation Requirements.

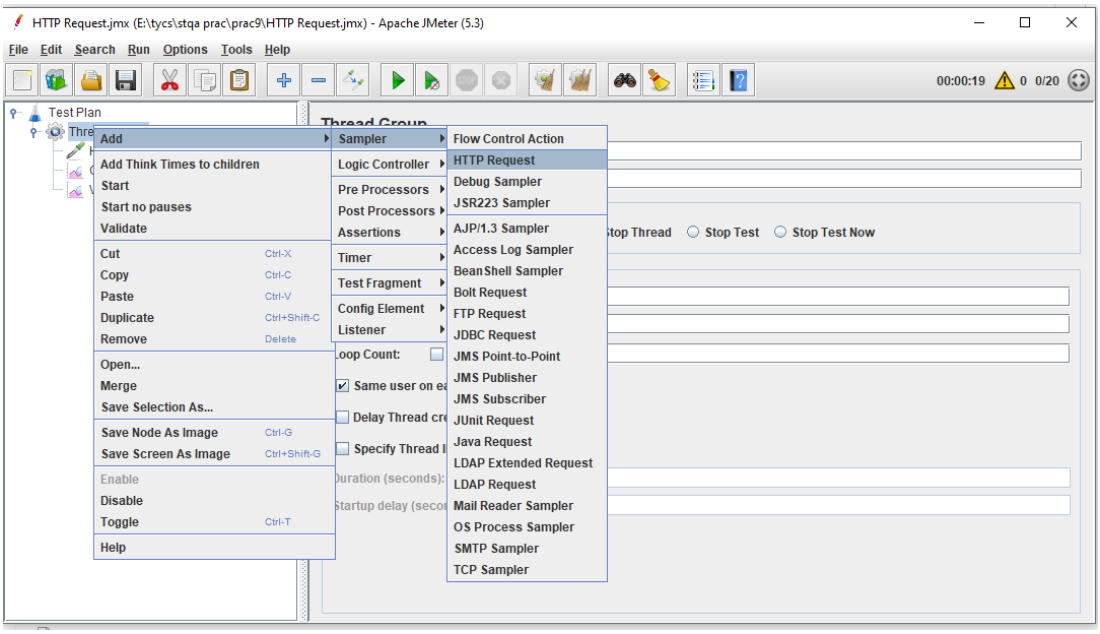
Step-3 :- Now First step is to add an Thread Group, RightclickonT estPlan → Add → T hreads(Users) → T hreadGroup



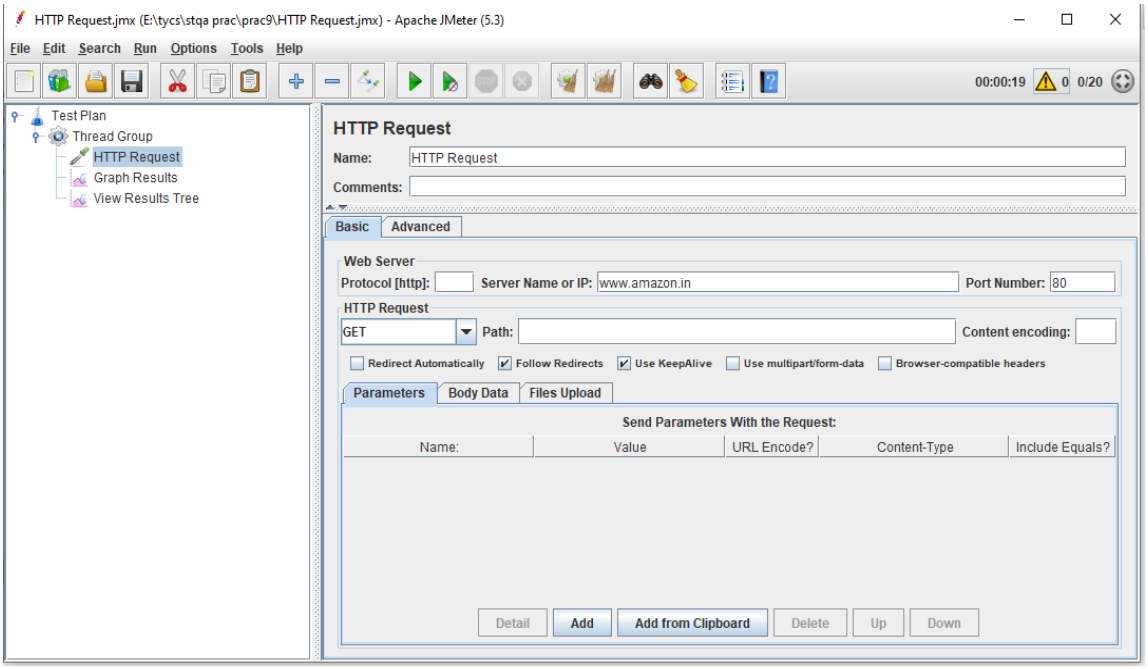
Step-4 :- Next rename the Thread Group and set ”Number of Threads (Users):” as 20 and ”Ramp-up period(seconds):” as 20. Keep rest options as default.



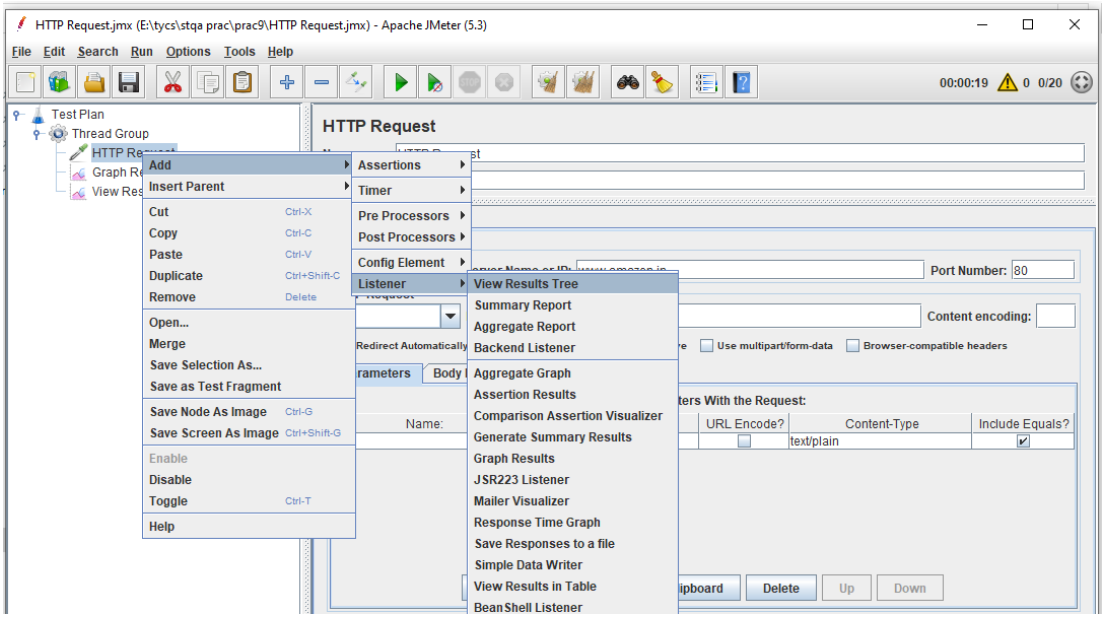
Step-5 :- We add a HTTP Request Sampler to the Thread Group Rightclick T hreadGroup → Add → Sampler → HT T P Request



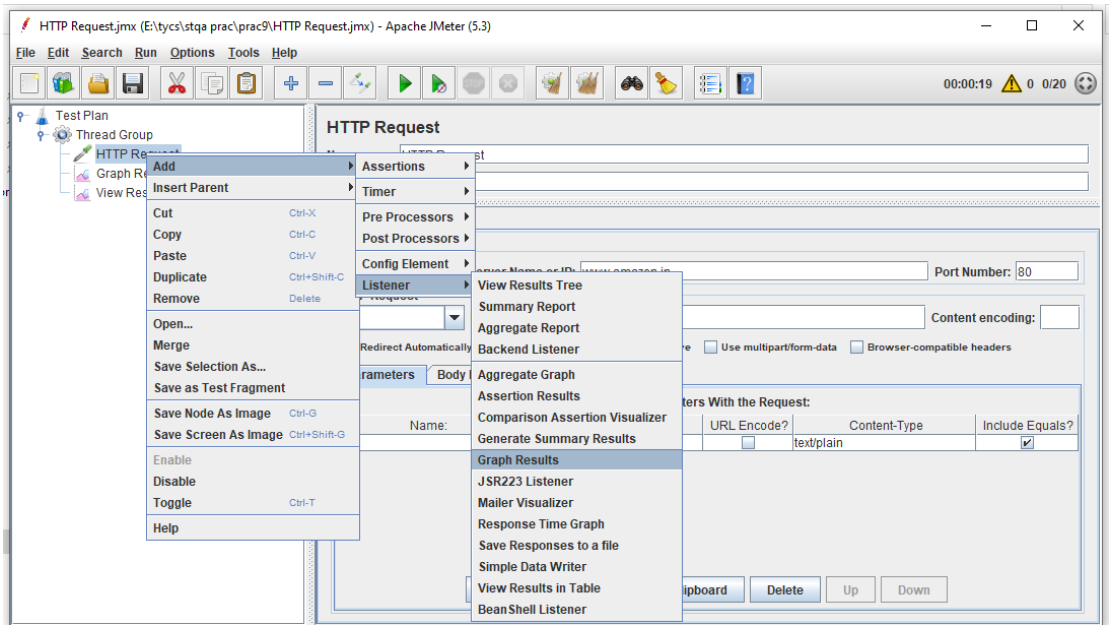
Step-6 :- Next, Edit the ”Server Name or IP:” to the specific website or Server IP address, optionally one configure port number and Request parameters and path as well.



Step-7 :- To view the log data add a ”View Results Tree Listener” Rightclick T estPlan → Add → Listener → ViewResultsTree.



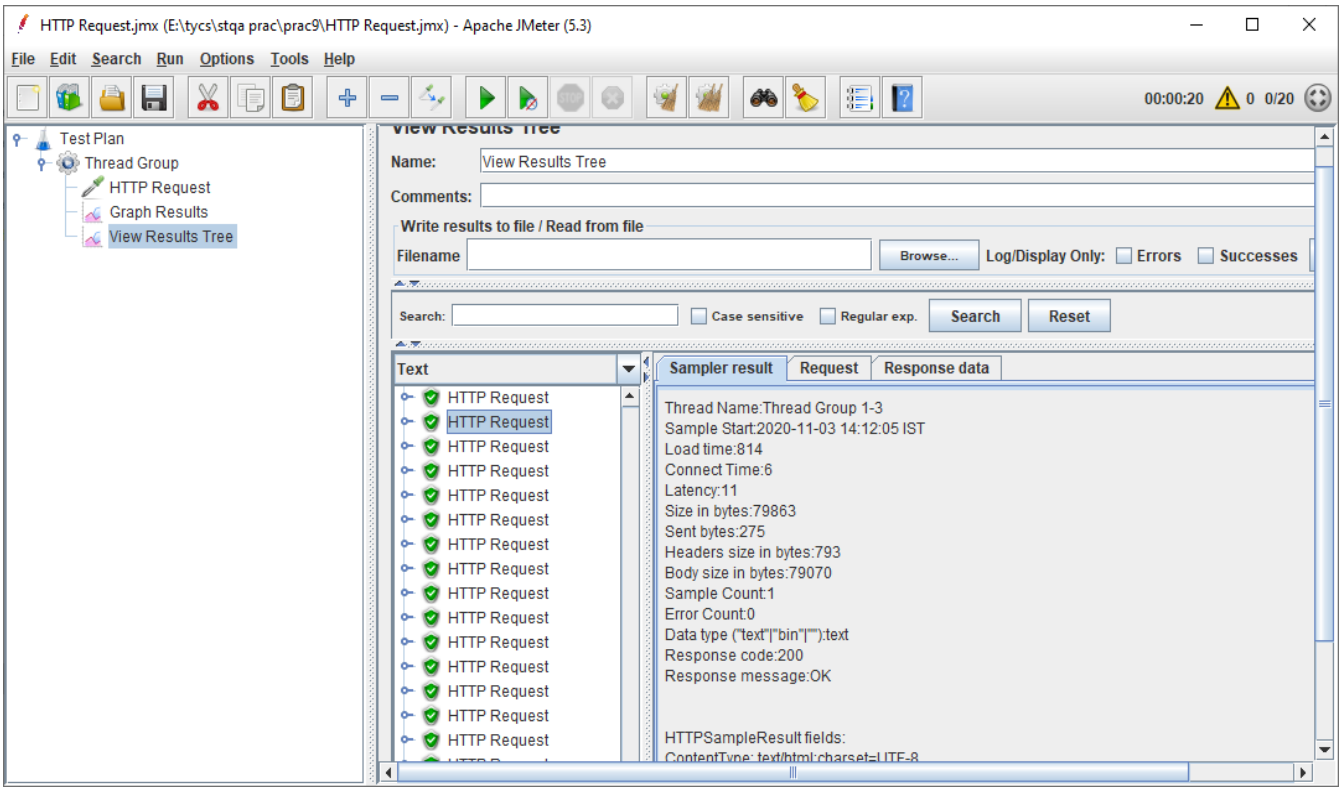
Step-8 :- To visualize the data we add a ”Graph Results Listener” Rightclick T estPlan → Add → Listener → GraphResults



Step-9 :- Next save the project as some filename into the hard drive by clicking Ctrl-S.

Step-10 :- Now Run the tests by clicking on the Green Play Button .

Step-11 :- After the test completes successfully you can view the logged results of the test in ”View Results Tree”



Step-12 :- One can also visualize the parameters by looking at the ”Graph Results”.