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ROLL NO.: TCS2324045

SUBJECT: STQA JOURNAL

SIES College of Arts, Science & Commerce
RISE WITH EDUCATION
NAAC REACCREDITED - 'A' GRADE
ISO 9001 : 2008

S.I.E.S College of Arts, Science and Commerce,
Sion(W), Mumbai – 400 022.

CERTIFICATE

This is to certify that Mr. **NADAR KIBSON SAMUEL P JOSEPH** Roll No **TCS2324045** has successfully completed the necessary course of experiments in the subject of **SOFTWARE TESTING & QUALITY ASSURANCE** during the academic year **2023 – 2024** complying with the requirements of **University of Mumbai**, for the course of **T.Y.BSc. Computer Science [Semester-V]**

Head of the Department
Dr. Manoj Singh

Prof. In-Charge(Computer Science)
Dr. Manoj Singh

Date:

College Seal

INDEX

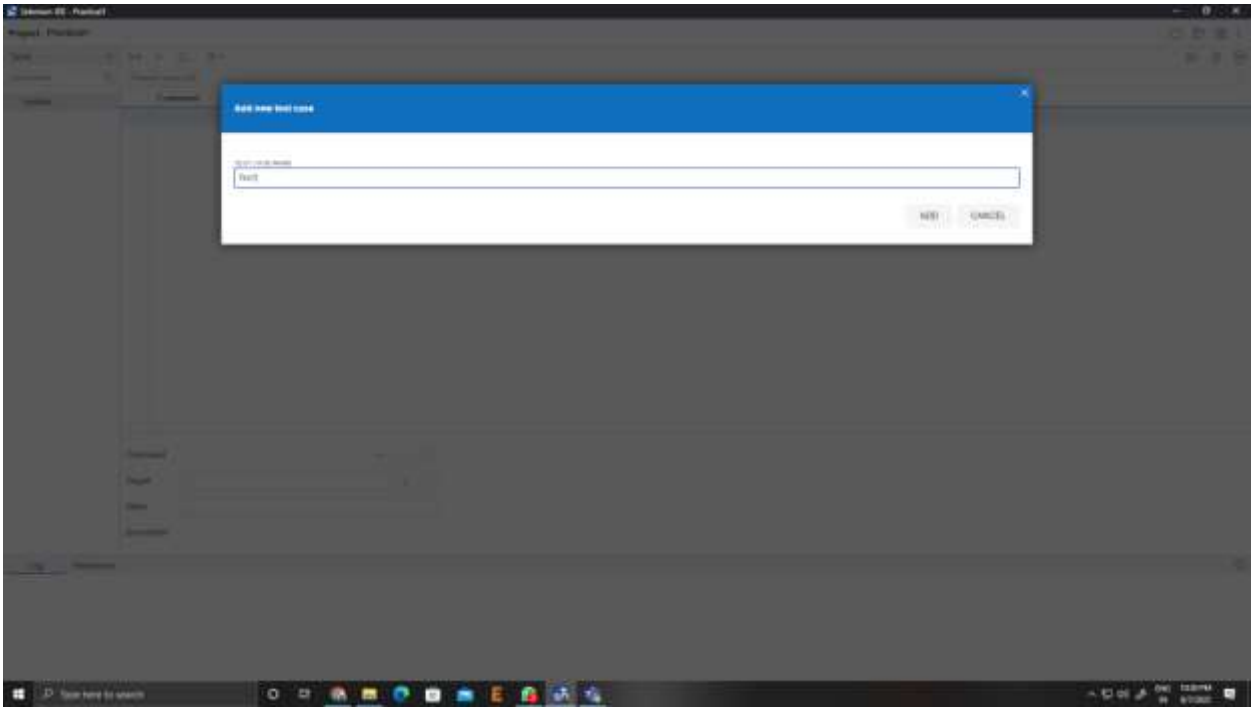
Practical No.	Topics	Page No.	Date	Signature
1	Install Selenium IDE; Write a test suite containing minimum 4 test cases for different formats.	4	26/07/23	
2	Install Selenium IDE; Conduct a test suite for any two web sites.	5	26/07/23	
3	Install Selenium Client & WebDriver and demonstrate it using a script in Java.	6	02/08/23	
4	Write and test a program to login a specific web page.	8	09/08/23	
5	Write and test a program to update 10 student records into table into Excel file.	10	16/08/23	
6	Write and test a program to select the number of students who have scored more than 60 in any one subject.	12	23/08/23	
7	Write and test a program to provide total number of objects present / available on the page.	13	23/08/23	
8	Write and test a program to get the number of items in a list / combo box.	14	30/08/23	
9	Write and test a program to count the number of check boxes on the page checked and unchecked count.	16	30/08/23	

Practical 1

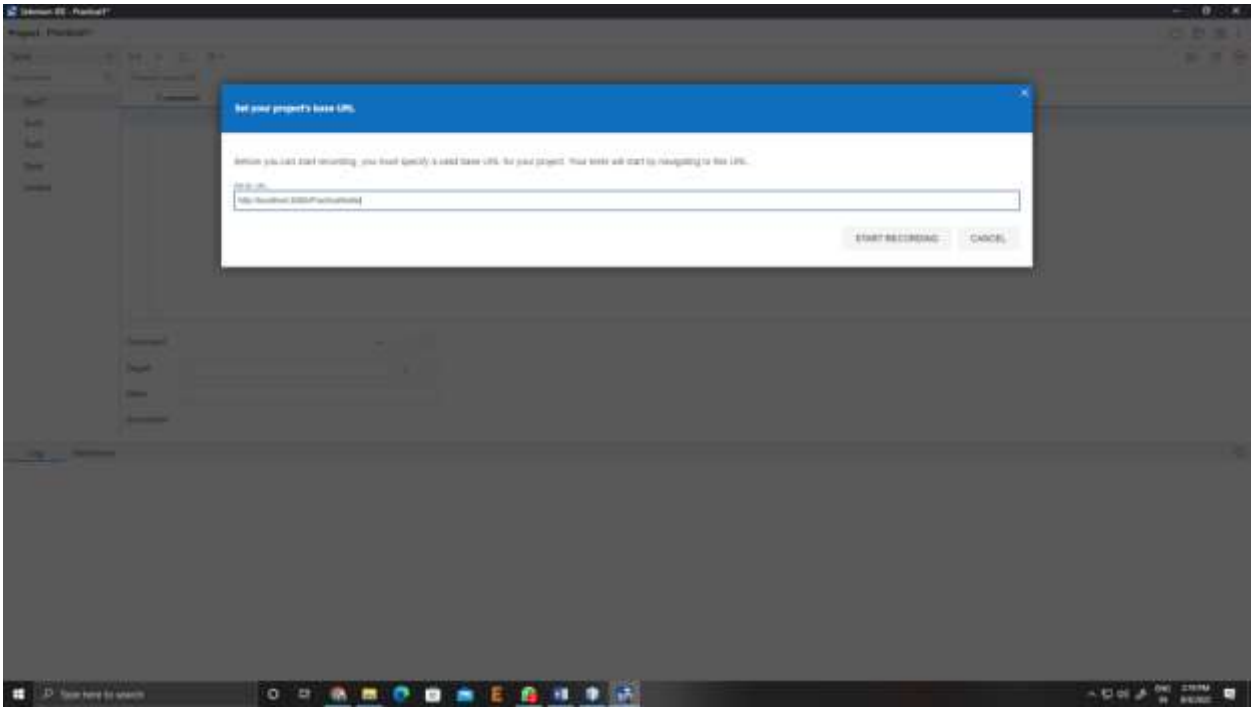
Aim:

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

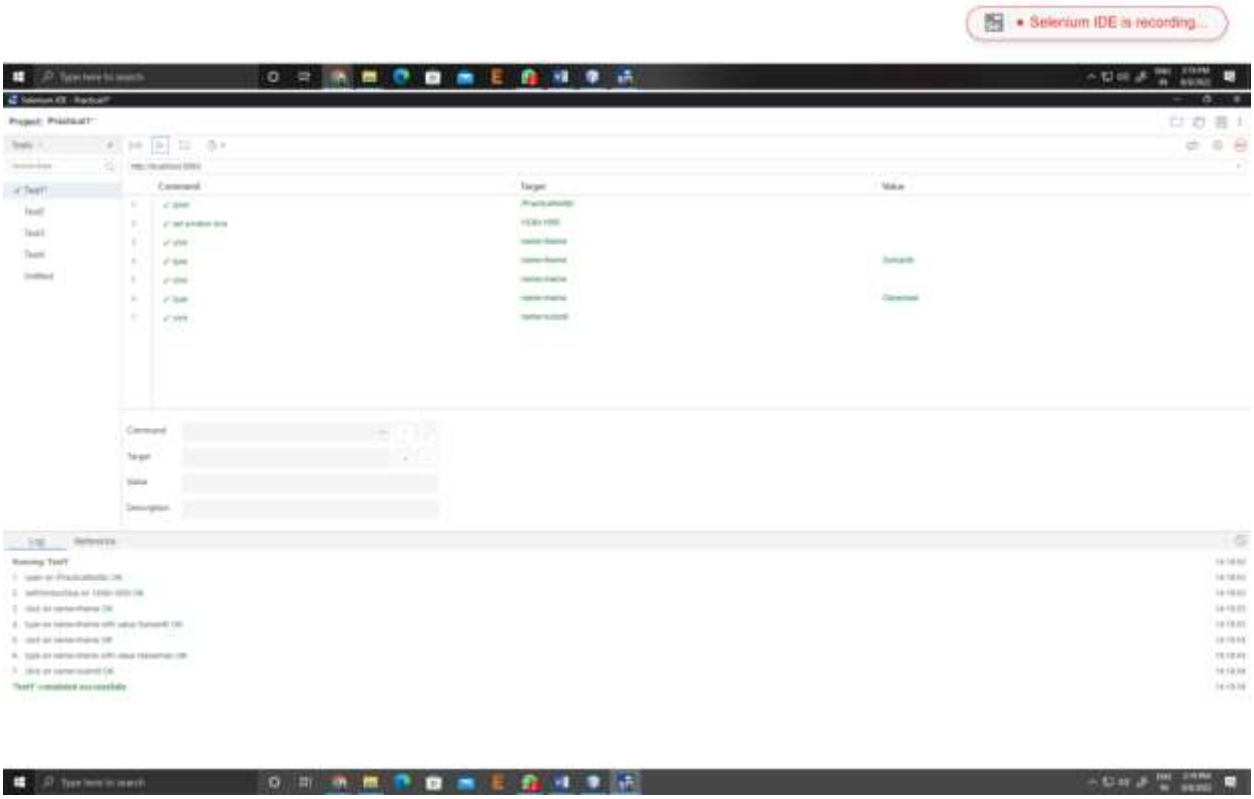
Test 1



url:

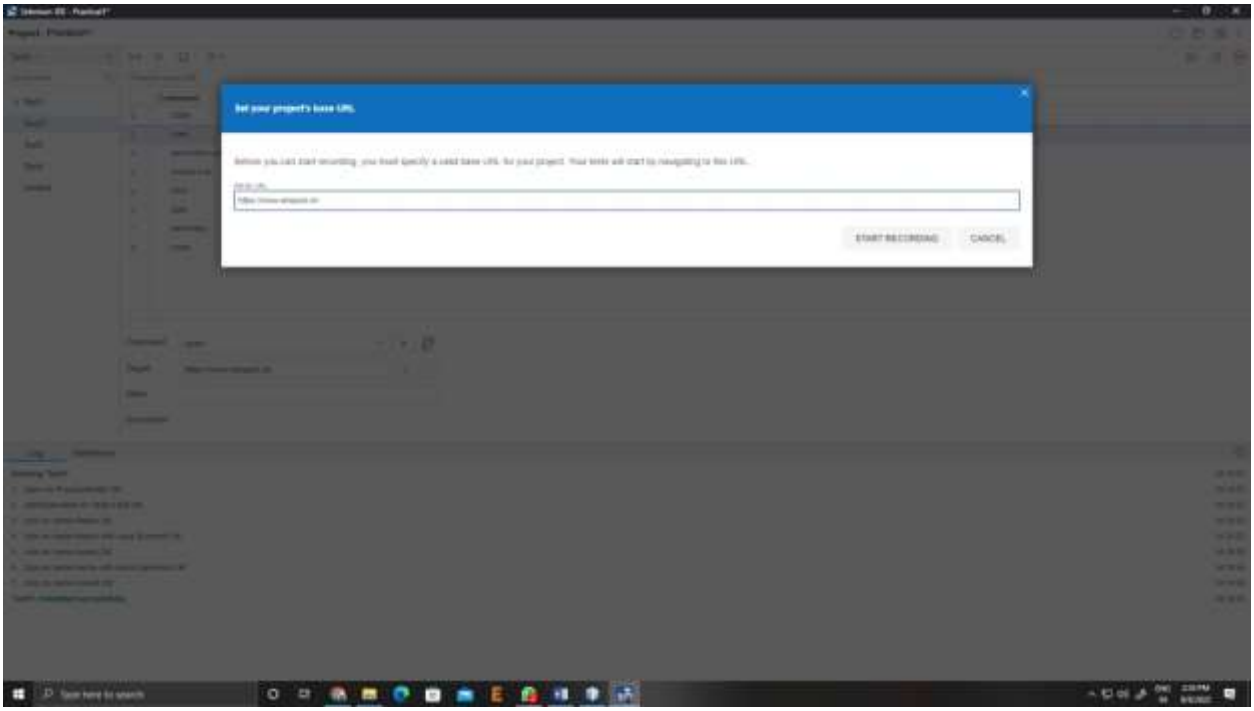


Output:

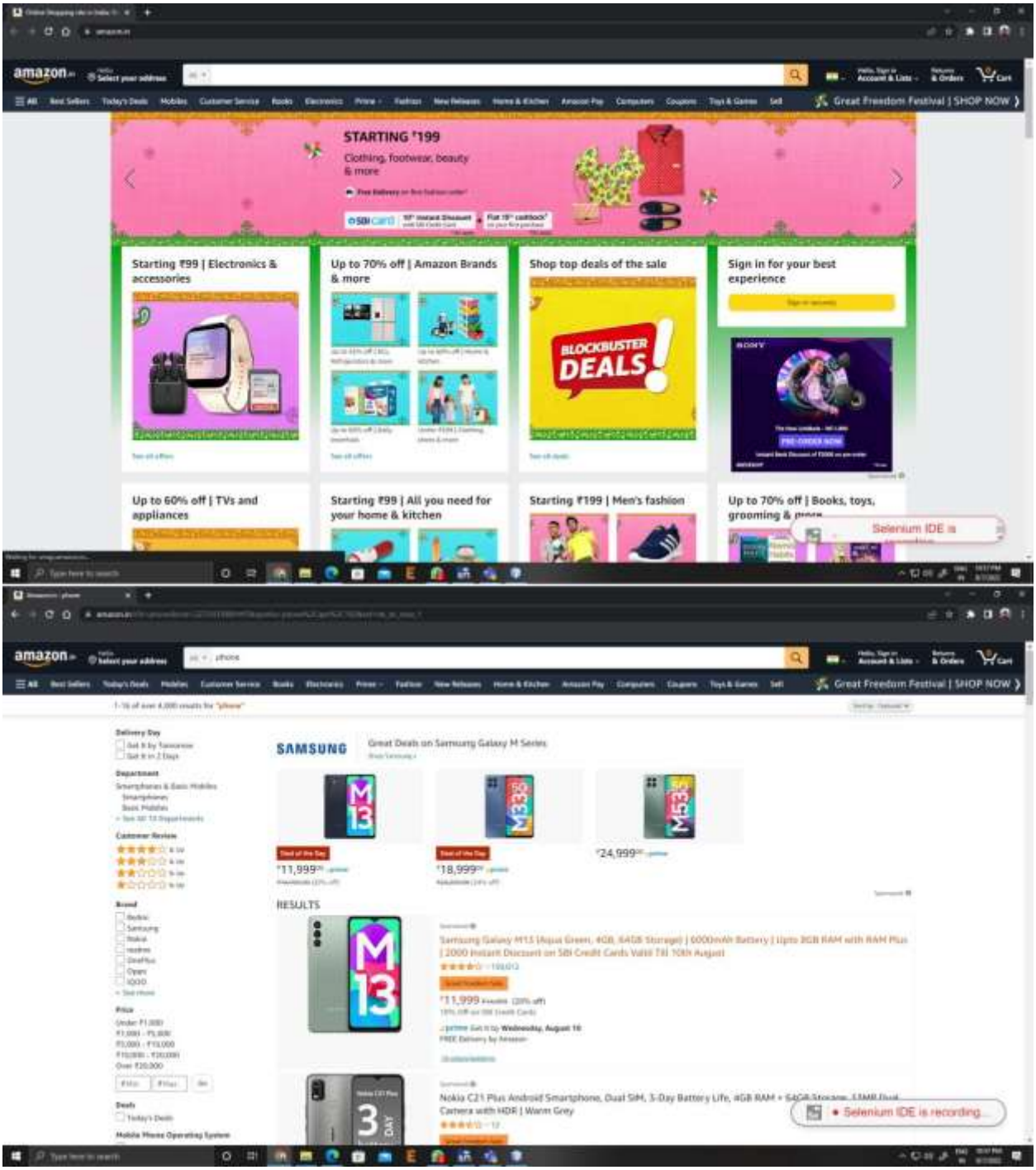


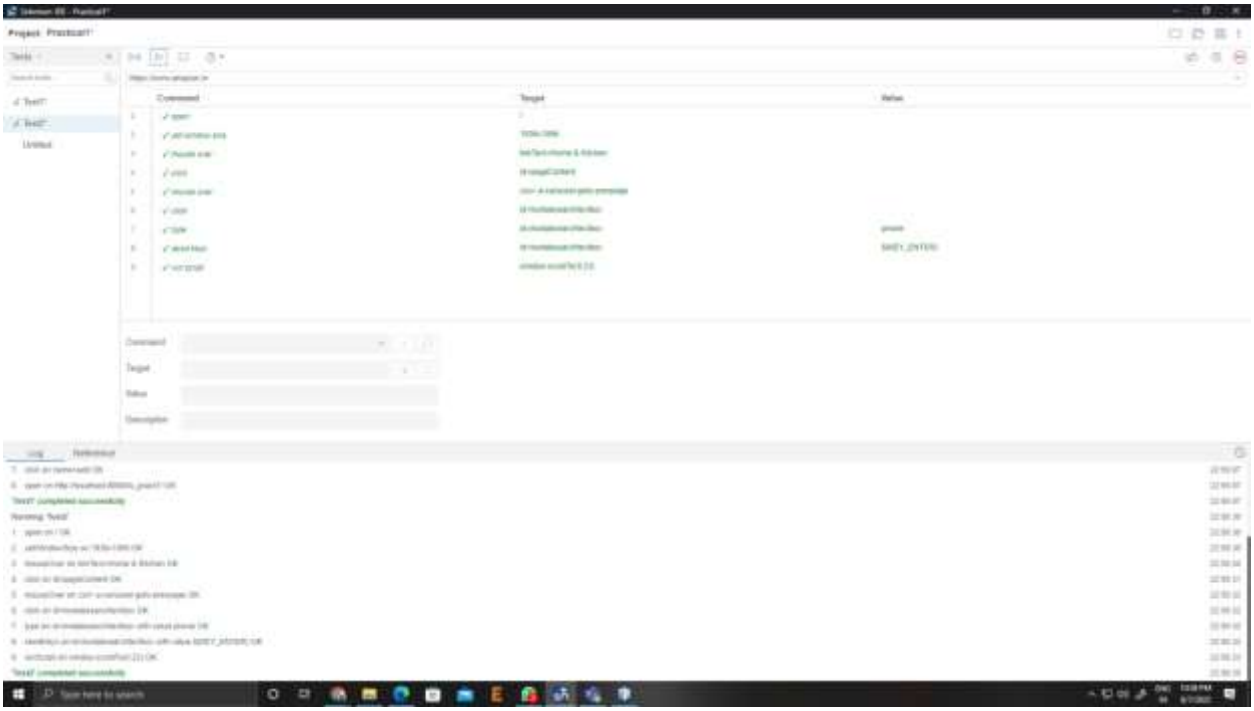
Test 2

url:



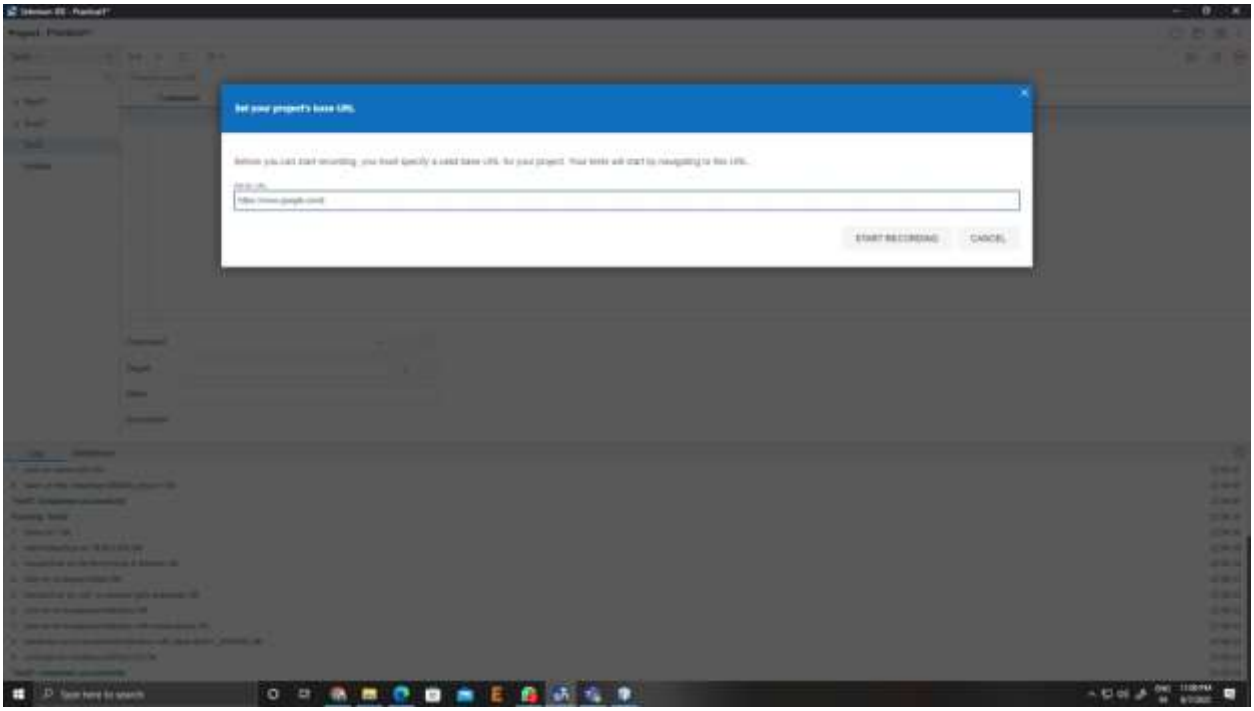
Output:


amazon
Great Freedom Festival | SHOP NOW
STARTING ₹199
Clothing, footwear, beauty & more
Starting ₹99 | Electronics & accessories
Up to 70% off | Amazon Brands & more
Shop top deals of the sale
BLOCKBUSTER DEALS
Sign in for your best experience
Up to 60% off | TVs and appliances
Starting ₹99 | All you need for your home & kitchen
Starting ₹199 | Men's fashion
Up to 70% off | Books, toys, grooming & more
Selenium IDE is recording...
phone
SAMSUNG
Great Deals on Samsung Galaxy M Series
RESULTS
Samsung Galaxy M13 (Aqua Green, 4GB, 64GB Storage) | 6000mAh Battery | Upto 8GB RAM with RAM Plus | 2000 Instant Discount on SBI Credit Cards Valid Till 10th August
₹11,999
Nokia C21 Plus Android Smartphone, Dual SIM, 3-Day Battery Life, 4GB RAM + 64GB Storage, 13MP Dual Camera with HDR | Warm Grey
Selenium IDE is recording...

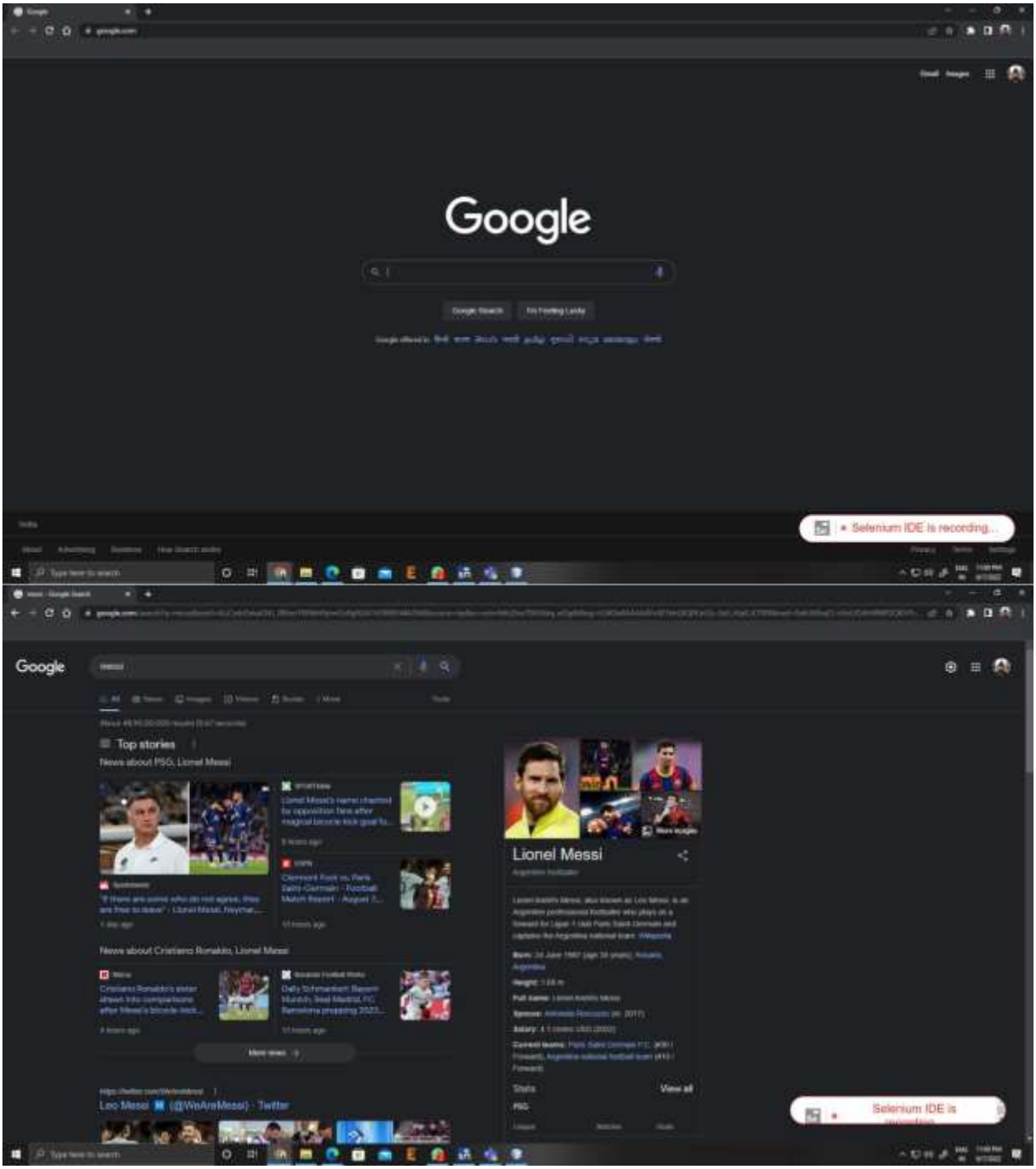


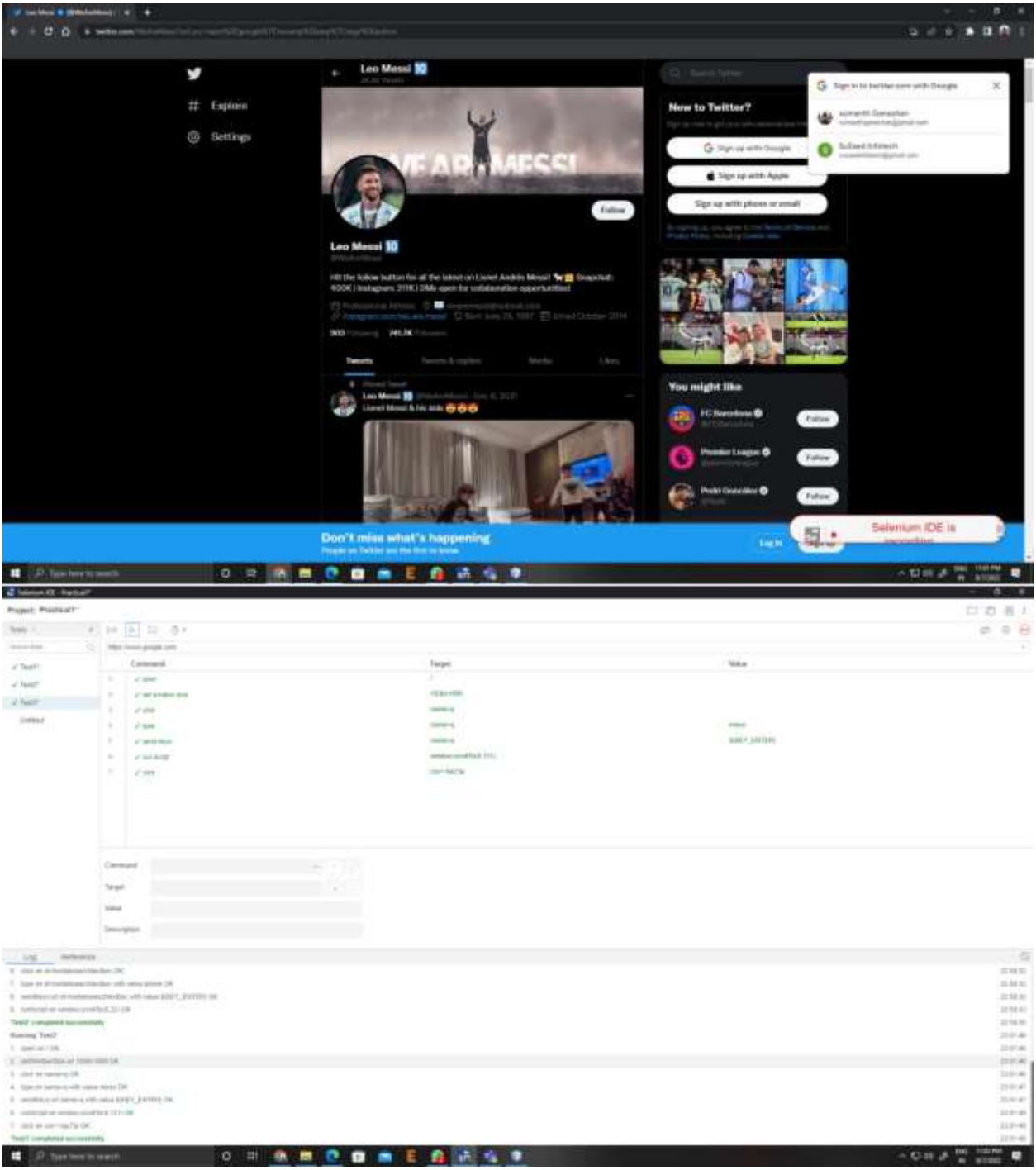
Test 3

url:



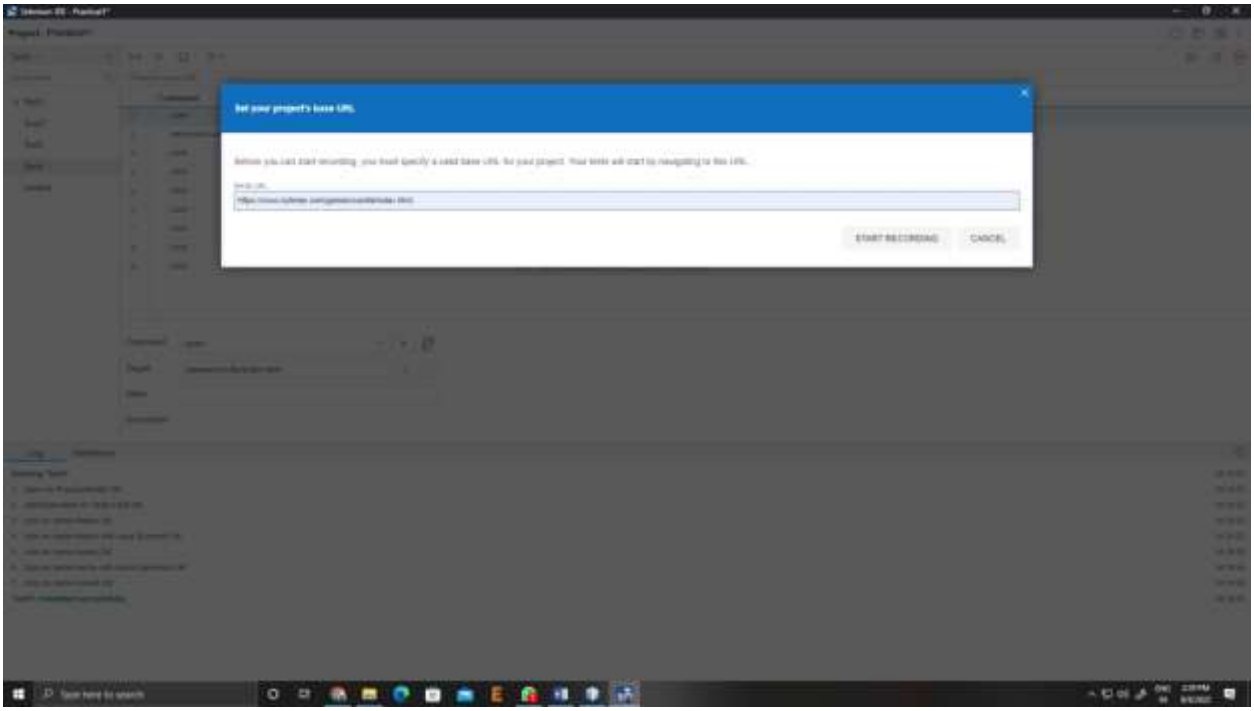
Output:


Google
Selenium IDE is recording...
Google
Top stories
News about PSG, Lionel Messi
News about Cristiano Ronaldo, Lionel Messi
Lionel Messi
Selenium IDE is

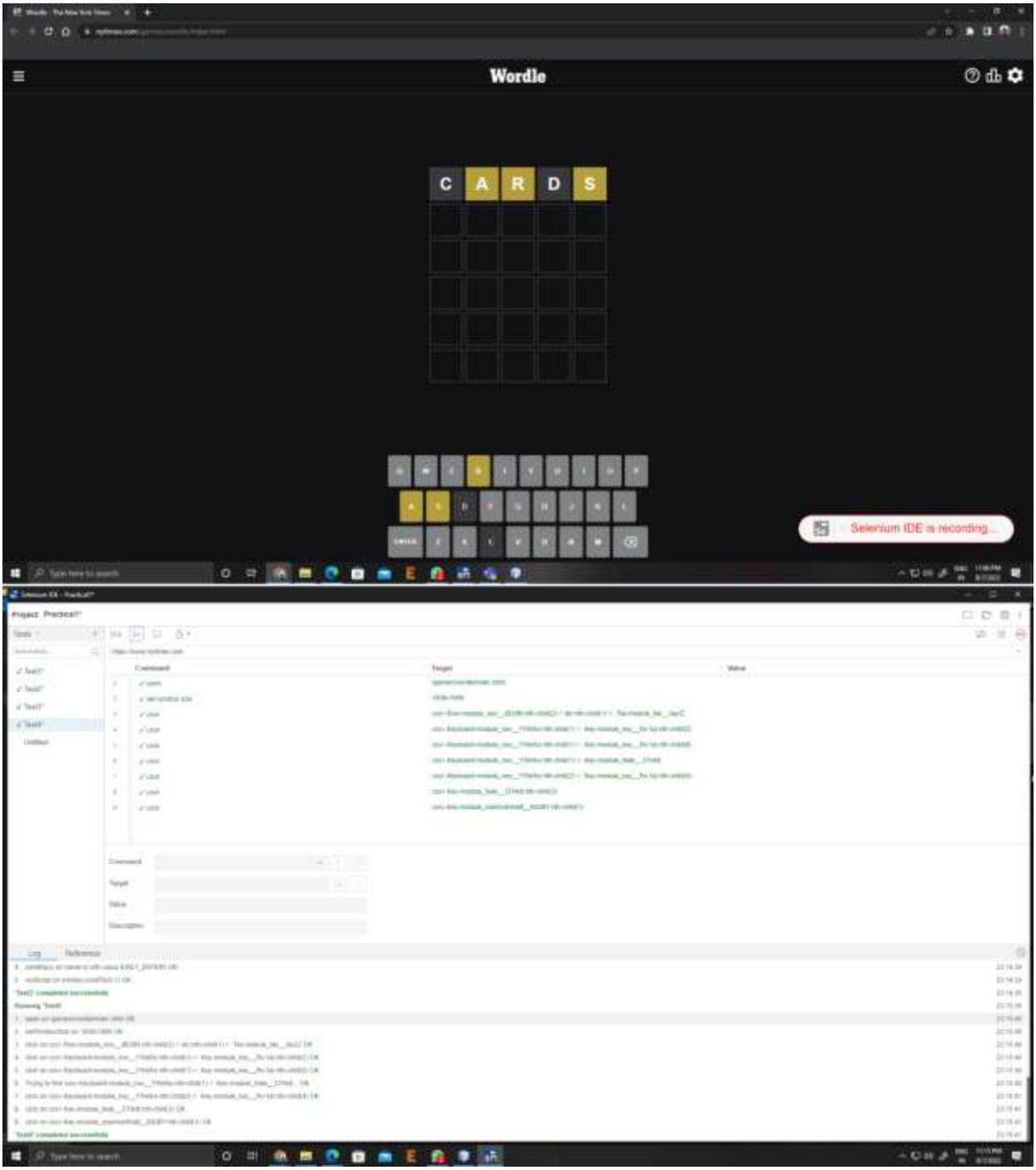

Leo Messi
Explore
Settings
Follow
Leo Messi
New to Twitter?
Sign up with Google
Sign up with Apple
Sign up with phone or email
You might like
FC Barcelona
Premier League
Follow
Don't miss what's happening
Log in
Selenium IDE is
Command
Target
Value

Test 4

url:



Output:


Wordle
C A R D S
Selenium IDE is recording...

Practical 2

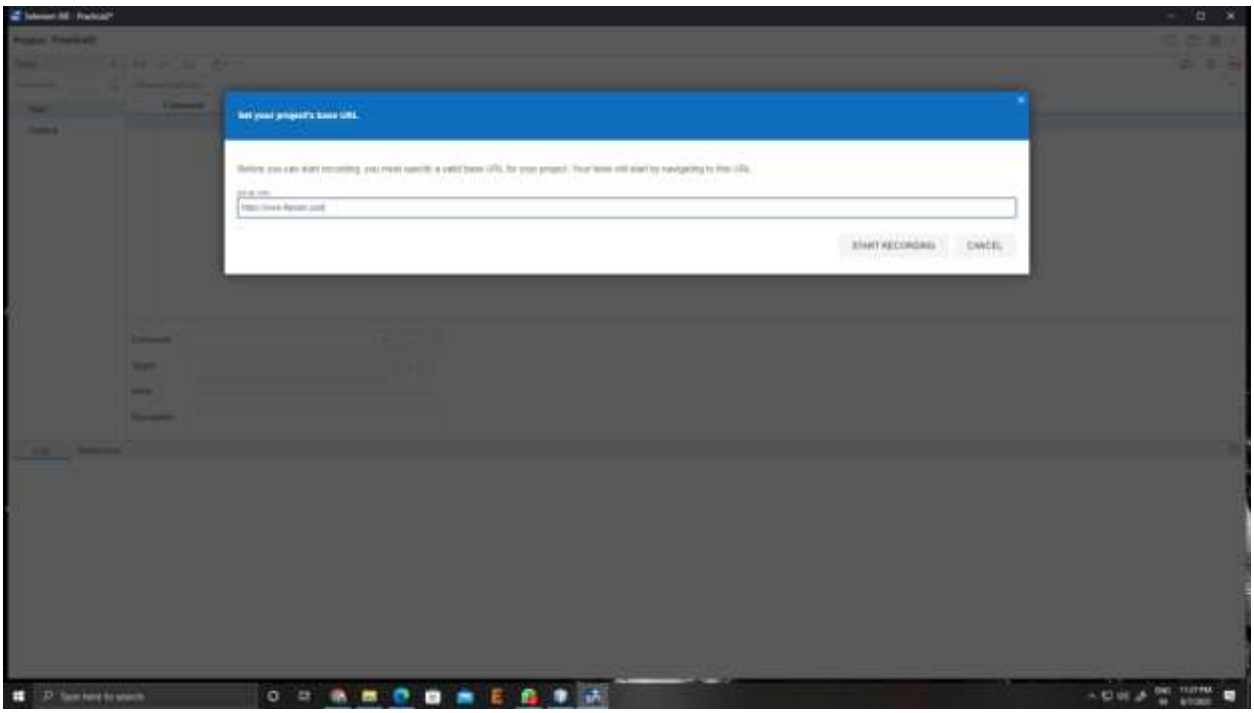
Aim:

Conduct a test suite for any 2 web sites.

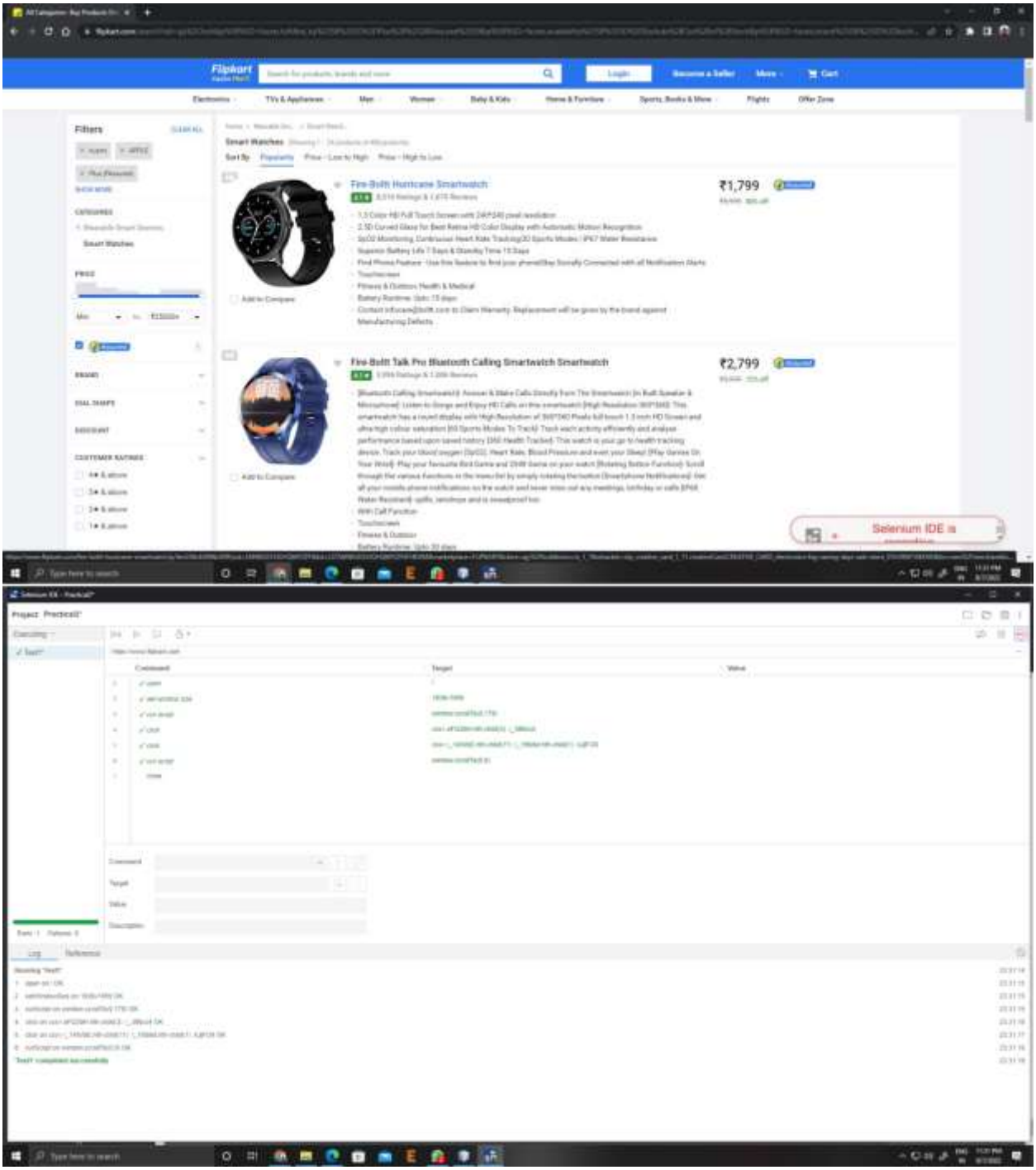
Website 1

Test

url:



Output:

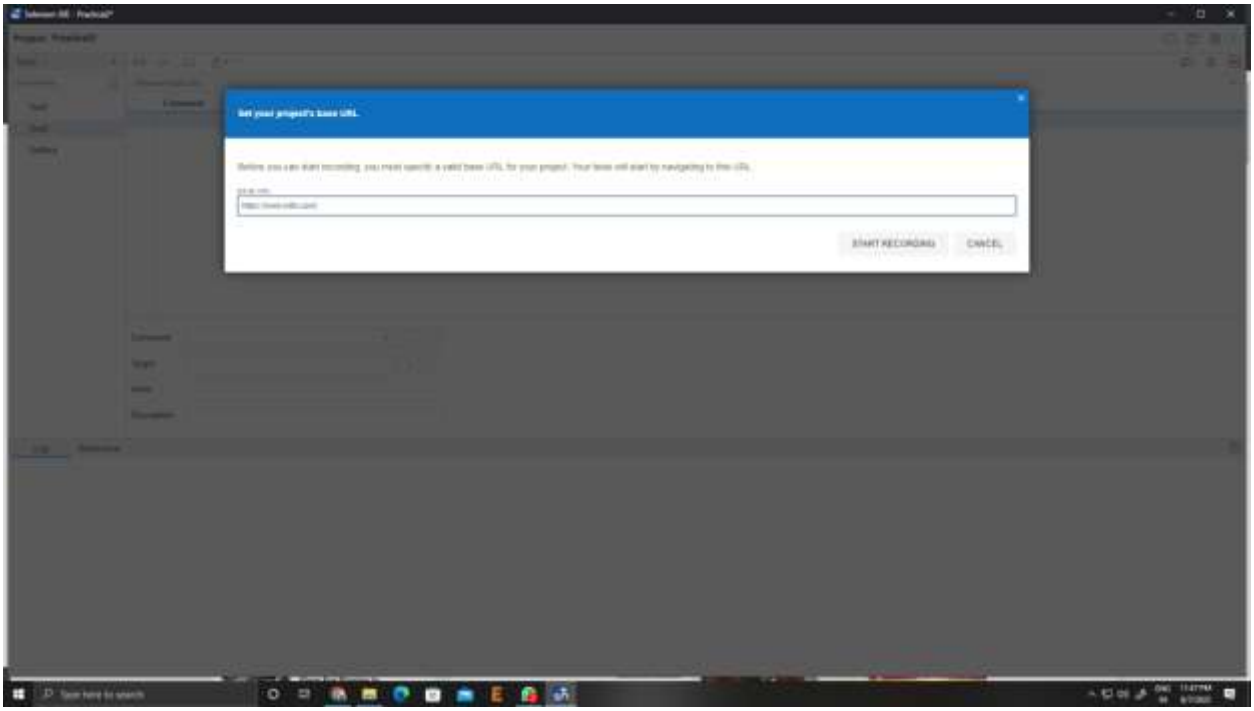

Flipkart
Filters
Fire-Boltt Hurricane Smartwatch
₹1,799
Fire-Boltt Talk Pro Bluetooth Calling Smartwatch Smartwatch
₹2,799
Selenium IDE is

Website 2

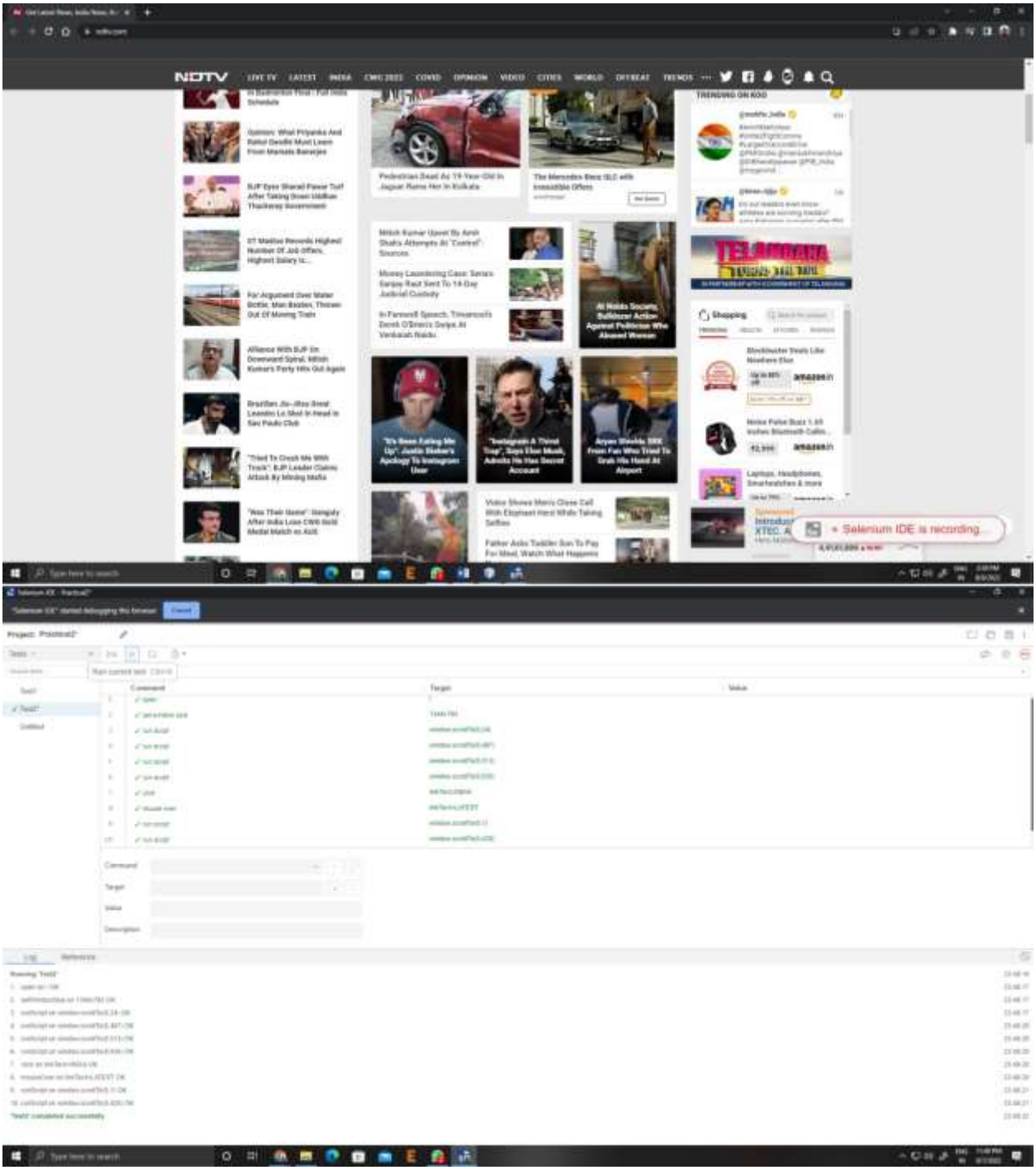
Test 2

Test

url:



Output:


NDTV
Selenium IDE is recording...

Practical No.3:

Aim:

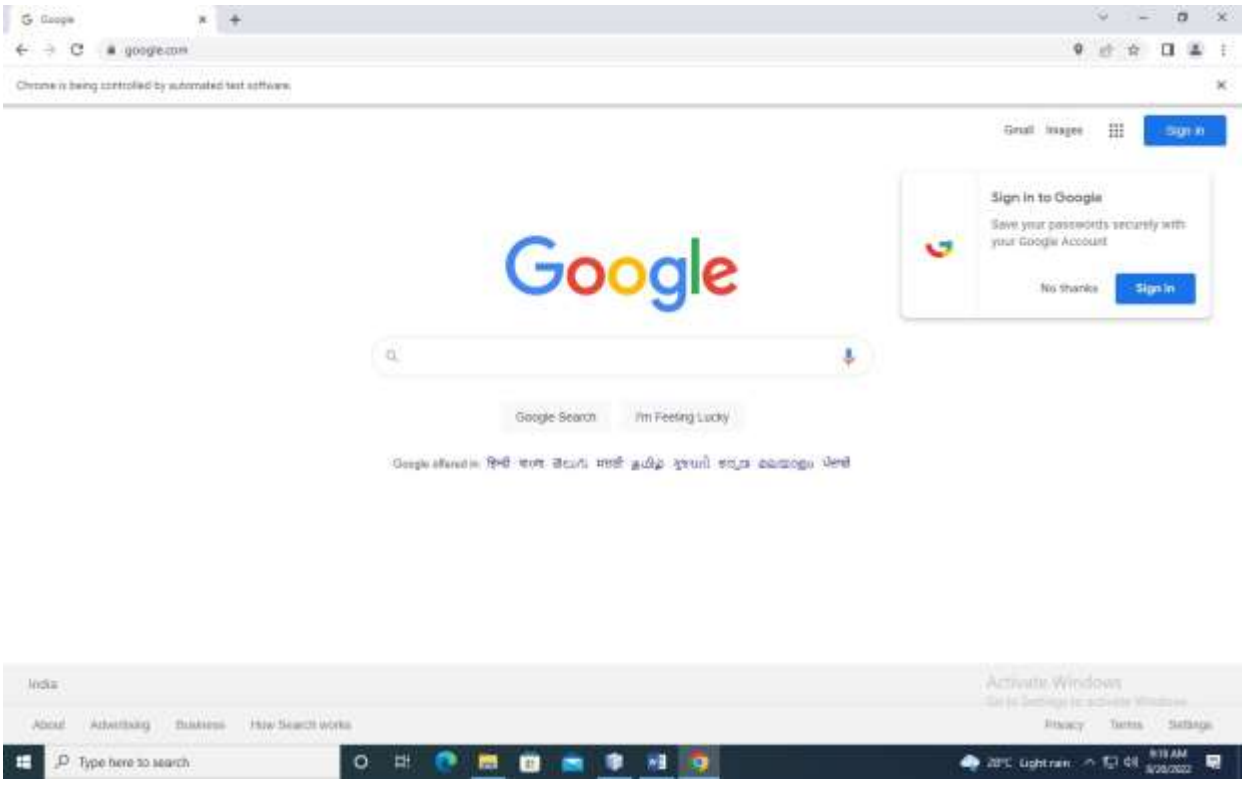
Install Selenium Client & WebDriver and demonstrate it using a script in Java.

Code:

```
package stqa3;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
/**
 *
 * @author sies
 */
public class STQA3
{

   public static void main(String[] args)
   {
      System.setProperty("webdriver.chrome.driver","C:/Users/sies/Desktop/New
folder/chromedriver_104.exe");
      WebDriver driver = new ChromeDriver();
      driver.get("https://www.google.com");
      driver.manage().window().maximize();
      //driver.close();
   }
}
```

Output:



Practical No.4:

Aim:

Write and test a program to login a specific webpage.

Code:

Index.php :

```
<!DOCTYPE html>
<!--
To change this license header, choose License Headers in Project Properties.
To change this template file, choose Tools | Templates
and open the template in the editor.
```

```
-->
<html>
  <head>
    <meta charset="UTF-8">
    <title></title>
  </head>
  <body>
    <form action="Welcome.html" method="post" name="signup-form">
      <div class="form-element">
        <label>Username</label>
        <input id= "username" type="text" name="username" pattern="[a-zA-Z0-9]+" required />
      </div>
      <div class="form-element">
        <label>Password</label>
        <input id="password" type="password" name="password" required />
      </div>
      <button id="submit" type="submit" name="submit" value="submit">Submit</button>
    </form>
  </body>
</html>
```

Welcome.html :

```
<!DOCTYPE html>
<!—
To change this license header, choose License Headers in Project Properties.
To change this template file, choose Tools | Templates

And open the template in the editor.
→
<html>
  <head>
    <title>Welcome</title>
    <meta charset=”UTF-8”>
    <meta name=”viewport” content=”width=device-width, initial-scale=1.0”>
  </head>
  <body>
    <div>Welcome </div>
  </body>
</html>
```

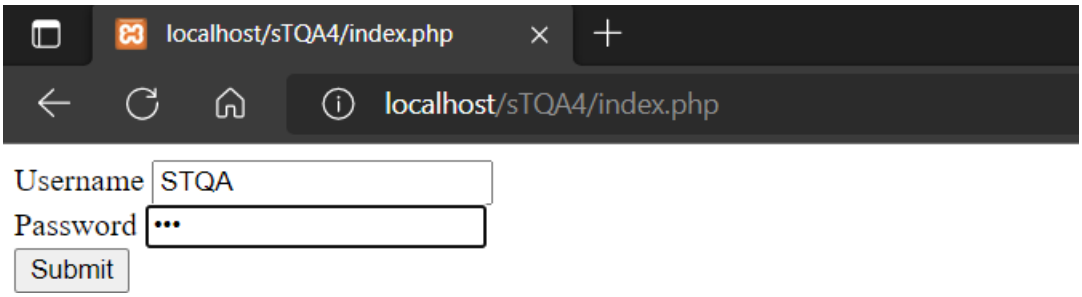
STQA4.java:

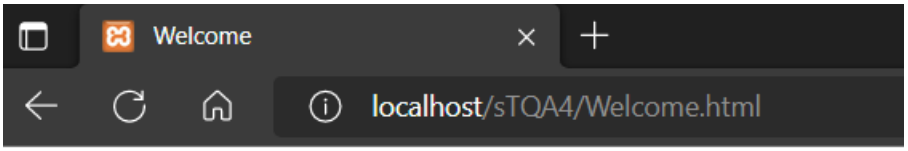
```
package stqa4;
```

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


public class STQA4
{
   public static void main(String[] args)
   {
      System.setProperty("webdriver.chrome.driver","D:/User/Desktop/New
Folder/chromedriver_104.exe");
      WebDriver driver = new ChromeDriver();
      driver.manage().window().maximize();
      driver.get("http://localhost:81/login.php");
      driver.findElement(By.id("username")).sendKeys("admin");
      driver.findElement(By.id("password")).sendKeys("123");
      driver.findElement(By.id("submit")).click();
      if(driver.getTitle().contains("Welcome"))
      {
         System.out.println("Logged in successfully");
      }
      else
      {
         System.out.println("Failed to login");
      }
      //driver.quit();
   }
}
```

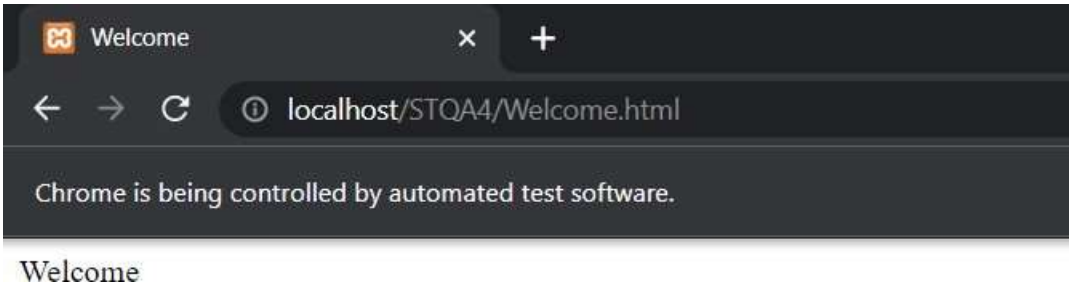
Output:





Welcome

Automation :



Practical No.5:

Aim:

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

Code:

STQA5.java:

```
package stqa5;
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 STQA5
{
```

```
   public static void main(String[] args)
   {
      System.setProperty("webdriver.chrome.driver","D:/User/Desktop/New
Folder/chromedriver_104.exe");
      WebDriver driver = new ChromeDriver();
      driver.manage().window().maximize();
      driver.get("https://www.google.com");
      List<WebElement> links = driver.findElements(By.tagName("a"));
      List<WebElement> buttons = driver.findElements(By.tagName("button"));
      List<WebElement> fields = driver.findElements(By.tagName("input"));
      System.out.println("Total no. of links: " + links.size());
      System.out.println("Total no. of buttons: " + buttons.size());
      System.out.println("Total no. of fields: " + fields.size());
      driver.quit();
   }
}
```

Output:

```
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
[1663261249.484][WARNING]: This version of ChromeDriver has not been tested with Chrome version 105.
Sep 15, 2022 10:30:49 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: W3C
Total no. of links: 25
Total no. of buttons: 1
Total no. of fields: 8
BUILD SUCCESSFUL (total time: 7 seconds)
```

Practical No.6:

Aim:

Write and test a program to update 10 student records into table into Excel file.

Code:

Book1.xls:

A	B	C	D	E	F	G
Roll_no	Name	Java	Python	Web_Programming	Total	
1	Alex	90	90	95	275	
2	Bob	30	35	20	85	
3	Chris	60	40	70	170	
4	Karl	40	30	20	90	
5	Mark	50	80	70	200	
6	Joel	70	84	65	219	
7	Tommy	60	70	65	195	
8	Ellie	80	60	55	195	
9	Abby	40	60	75	175	
10	Arthur	50	65	35	150	

```
package stqa6;

import java.io.FileInputStream;
import java.io.FileOutputStream;
import jxl.Sheet;
import jxl.Workbook;
import jxl.write.Label;
import jxl.write.WritableSheet;
import jxl.write.WritableWorkbook;

public class STQA6
{
   public static void main(String[] args) throws Exception
   {
      FileInputStream fi = new FileInputStream("C:\\Users\\sies\\Desktop\\Book1.xls");
      Workbook w = Workbook.getWorkbook(fi);
      Sheet s = w.getSheet(0);
      String a[][] = new String[s.getRows()][s.getColumns()];
      FileOutputStream fo = new FileOutputStream("C:\\Users\\sies\\Desktop\\Book2.xls");
      WritableWorkbook wwb = Workbook.createWorkbook(fo);
      WritableSheet ws = wwb.createSheet("result1", 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 l = new Label(j, i, a[i][j]);
            ws.addCell(l);
         }
      }
```

```
        Label l = new Label (6, 0, "Result");
        ws.addCell(l);

        for (int i = 1; i < s.getRows(); i++)
        {
           for (int j = 1; j < s.getColumns(); j++)
           {
              a[i][j] = s.getCell(j, i).getContents();
              int x = Integer.parseInt(a[i][j]);
              if (x/3 >=35)
              {
                 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:

Book2.xls:

	A	B	C	D	E	F	G	H
1	Roll_no	Name	Java	Python	Web_Programmii	Total	Result	
2	1	Alex	90	90	95	275	pass	
3	2	Bob	30	35	20	85	fail	
4	3	Chris	60	40	70	170	pass	
5	4	Karl	40	30	20	90	fail	
6	5	Mark	50	80	70	200	pass	
7	6	Joel	70	84	65	219	pass	
8	7	Tommy	60	70	65	195	pass	
9	8	Ellie	80	60	55	195	pass	
10	9	Abby	40	60	75	175	pass	
11	10	Arthur	50	65	35	150	pass	
12								
13								
14								
15								
16								
17								

Practical No.7:

Aim:

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

Code:

Book1.xls:

Roll_no	Name	Java	Python	Web_Programming	Total
1	Alex	90	90	95	275
2	Bob	30	35	20	85
3	Chris	60	40	70	170
4	Karl	40	30	20	90
5	Mark	50	80	70	200
6	Joel	70	84	65	219
7	Tommy	60	70	65	195
8	Ellie	80	60	55	195
9	Abby	40	60	75	175
10	Arthur	50	65	35	150

```
package stqa7;

import java.io.FileInputStream;
import java.io.FileOutputStream;
import jxl.Sheet;
import jxl.Workbook;
import jxl.write.Label;
import jxl.write.WritableSheet;
import jxl.write.WritableWorkbook;

public class STQA7
{
```

```
  public static void main(String[] args) throws Exception
  {
    FileInputStream fi = new FileInputStream("C:\\Users\\sies\\Desktop\\Book1.xls");
    Workbook w = Workbook.getWorkbook(fi);
    Sheet s = w.getSheet(0);
    String a[][] = new String[s.getRows()][s.getColumns()];
    FileOutputStream fo = new FileOutputStream("C:\\Users\\sies\\Desktop\\Book3.xls");
    WritableWorkbook wwb = Workbook.createWorkbook(fo);
    WritableSheet ws = wwb.createSheet("result1", 0);
    System.out.println();

    for (int i = 0; i < s.getRows(); i++)
    {
      String temp[] = new String[s.getColumns()];
      boolean flag = false;
      for (int j = 0; j < s.getColumns(); j++)
      {
        temp[j] = s.getCell(j, i).getContents();
        if(i>=1 && j>=2 && j<=4)
        {
          if(Integer.parseInt(temp[j]) >=60)
          {
            flag=true;
          }
        }
      }
      if(flag)
      {
        for(int k = 0; k <temp.length; k++)
        {
          Label l2 = new Label(k, i, temp[k]);
          ws.addCell(l2);
        }
      }
    }
    wwb.write();
    wwb.close();
  }
}
```

Output:

Book3.xls:

	A	B	C	D	E	F	G	H
1								
2	1	Alex	90	90	95	275		
3								
4	3	Chris	60	40	70	170		
5								
6	5	Mark	50	80	70	200		
7	6	Joel	70	84	65	219		
8	7	Tommy	60	70	65	195		
9	8	Ellie	80	60	55	195		
10	9	Abby	40	60	75	175		
11	10	Arthur	50	65	35	150		
12								
13								
14								

Practical No.8:

Aim:

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

Code:

STQA8.java:

```
package stqa8;
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 STQA8
{
   public static void main(String[] args)
   {
      System.setProperty("webdriver.chrome.driver","D:/User/Desktop/New
Folder/chromedriver_104.exe");
      WebDriver driver=new ChromeDriver();
      driver.manage().window().maximize();
      driver.get("http://localhost:81/list_combobox.html");
```

```
        List<WebElement> lists = driver.findElements(By.xpath("//ol/li"));
        System.out.println("Total no. of list: "+ lists.size());
        //driver.quit();
    }
}
```

List1.html:

```
<!DOCTYPE html>
<html>
<body>

<h2>List</h2>
<ol>
<li>Sumanth </li>
<li>Anantha </li>
<li>Afzal </li>
</ol>

</body>
</html>
```

Output:

```
Only local connections are allowed.
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
[1664183439.178][WARNING]: This version of ChromeDriver has not been tested with Chrome version 105.
Sep 26, 2022 2:40:39 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: W3C
Total no. of list: 3
BUILD SUCCESSFUL (total time: 3 seconds)
```

Practical No.9:

Aim:

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

Code:

```
package stqa9;
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 STQA9
{
   public static void main(String[] args)
   {
      System.setProperty("webdriver.chrome.driver","D:/User/Desktop/New
Folder/chromedriver_104.exe");
      WebDriver driver=new ChromeDriver();
      driver.manage().window().maximize();
      driver.get("http://localhost:81/list_combobox.html");
      List<WebElement> checkboxs = driver.findElements(By.cssSelector("input[type='checkbox']"));
      int checked = 0, unchecked=0;
        for (WebElement checkbox : checkboxs){
           if (checkbox.isSelected()){
              checked++;
           }else{
              unchecked++;
           }
        }
      System.out.println("Total no. of checkbox is checked: "+checked);
      System.out.println("Total no. of checkbox is not checked: "+unchecked);
      driver.quit();
   }
}
```

List_Combobox.html:

```
<!DOCTYPE html>
<html>
<body>

<h2>ComboBox</h2>

<label for="colors">Choose a color: </label>
<select name="colors" id="color">
   <option value="Black">Black</option>
```

```
   <option value="White">White</option>
   <option value="Red">Red</option>
   <option value="Yellow">Yellow</option>
</select>
</br></br>
<input type="checkbox" id="vehicle1" name="vehicle1" value="Bike">
<label for="vehicle3">Bike</label><br>

<input type="checkbox" id="vehicle2" name="vehicle2" value="Car">
<label for="vehicle3">Car</label><br>

<input type="checkbox" id="vehicle3" name="vehicle3" value="Boat">
<label for="vehicle3">Boat</label><br>

</body>
</html>
```

Output:

```
Please see https://chromedriver.chromium.org/security-considerations for suggestions on keeping ChromeDriver safe.
ChromeDriver was started successfully.
[1664183081.286][WARNING]: This version of ChromeDriver has not been tested with Chrome version 105.
Sep 26, 2022 2:34:41 PM org.openqa.selenium.remote.ProtocolHandshake createSession
INFO: Detected dialect: W3C
Total no. of checkbox is checked: 0
Total no. of checkbox is not checked: 3
BUILD SUCCESSFUL (total time: 4 seconds)
```