SOFTWARE TESTING

LAB MANUAL

Subject Code:17CS601

VI SEMESTER

(2019-2020)

Submitted By:

Mr. Krishnaraj

Assistant Professor Gd. I

Department of Computer Science and Engineering
NMAMIT, Nitte

List Of Experiments

Part A:

1. Open https://www.google.co.in, automate the following using the specified locators in the Selenium IDE:
   - Verify Google sign-in using *id*.
   - Verify the working of Google Search button for the specified search using *name*.
   - Verify the link to Gmail homepage in Google homepage using *linktext*.
   - Verify the link to Google images homepage in Google homepage using *xpath*.

2. Open www.facebook.com application and record login and logout using Selenium IDE. Write test cases by locating the web elements using the CSS Selectors as mentioned below.
   - Locate the email input box using *tag and class*.
   - Locate the password input box using *tag and id*.
   - Locate the login button using *tag and attribute*.
   - Locate the 'Email or Phone' and 'Password' input boxes using *tag, class and attribute*.

3. Automate the following using Selenium WebDriver:
   - Launch the browser and open https://www.facebook.com.
   - Create new account.
   - Check whether Male/Female Radio button is displayed on the same Webpage and print the status and display the validation result.
   - Login using the Credentials.
   - In the News Feed Section, click on the status text box.
   - Write the Status and Post-it.
   - Logout and Close the driver.

4. Automate the following using Selenium WebDriver.
   - Use http://demo.guru99.com/test/upload/ to upload the file.
   - Display the message for successful upload.
   - Download the file.
   - Close the driver.

Part B:

1. Open http://www.newtours.demoaut.com, automate the following using annotations in TestNG framework with Selenium WebDriver:

- Verify the title of the homepage.
- Click on REGISTER and verify the title of its target page.
- Go back to the homepage and verify if it still has the correct title.
- Click on SUPPORT and verify the title of its target page.
- Go back to the homepage and verify if it still has the correct title.
- Click on CONTACT and verify the title of its target page.
- Click on BACK TO HOME and verify if it still has the correct title.

2. Perform the parallel automation of the following using TestNG framework with Selenium WebDriver:

- Open https://www.redbus.in, verify the presence of buses between two places on specific dates.
- Open https://www.amazon.in, verify the login using valid username and password, and logout.
- Google search for NMAMIT Nitte, verify that the college website homepage is opened by clicking on the link to college website.

3. Write multiple test suites using TestNG framework with Selenium WebDriver to automate the following:

- Open https://www.flipkart.com and https://www.snapdeal.com.
- Login to the application.
- Search for product and select the first item in the search results and then BuyAndRemove items From the Cart.
- Logout and close the driver.

PART A

EXPERIMENT-1

Open https://www.google.co.in, automate the following using the specified locators in the Selenium IDE:

i. **Verify Google sign-in using *id*.**
ii. **Verify the working of Google Search button for the specified search using *name*.**
iii. **Verify the link to Gmail homepage in Google homepage using *linktext*.**
iv. **Verify the link to Google images homepage in Google homepage using *xpath*.**

i. Verify Google sign-in using *id*.

	Command	Target	Value
1	*open*	/	
2	*set window size*	957x713	
3	*click*	id=gb_70	
4	*verify title*	Sign in - Google Accounts	
5	*close*		

Expected output:

- Google sign-in should verified using *id*.

Actual Output:

- Google sign-in is verified using *id*.

Log:

Running '1. Verify Google sign-in using id'	10:29:12
1. open on / OK	10:29:12
2. setWindowSize on 957x713 OK	10:29:12
3. click on id=gb_70 OK	10:29:12
4. verifyTitle on Sign in - Google Accounts OK	10:29:14
5. close OK	10:29:18
'1. Verify Google sign-in using id' completed successfully	10:29:18

ii. Verify the working of Google Search button for the specified search using *name*.

	Command	Target	Value
1	*open*	/	
2	*set window size*	957x713	
3	*click*	name=q	
4	*type*	name=q	india
5	*send keys*	name=q	${KEY_ENTER}
6	*verify title*	india - Google Search	
7	*close*		

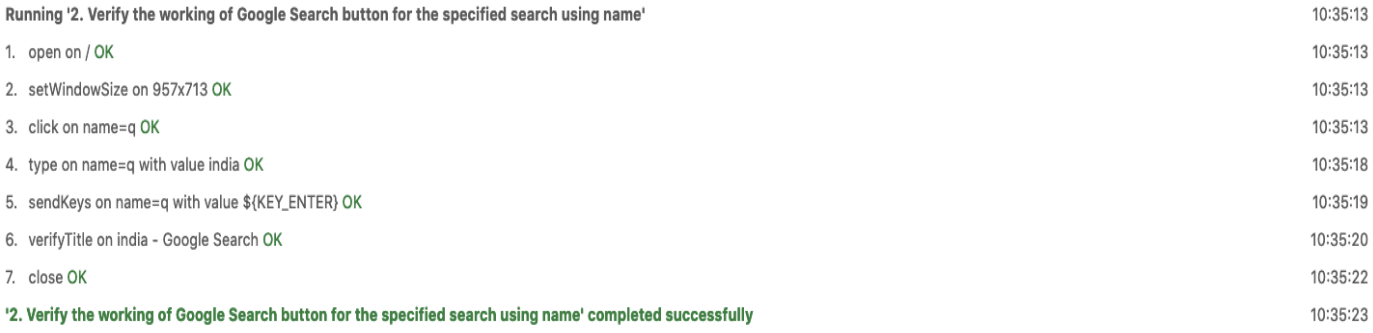
Expected output:

- Google search button should be verified for the specific search using *name*.

Actual Output:

- Google search button is verified for the specific search using *name*.

Log:



iii. Verify the link to Gmail homepage in Google homepage using *linktext*.

	Command	Target	Value
1	*open*	/	
2	*set window size*	957x713	
3	*click*	linkText=Gmail	
4	*verify title*	Gmail - Email from Google	
5	*close*		

Expected output:

- Link to Gmail homepage in Google homepage should be verified using *linktext*.

Actual Output:

- Link to Gmail homepage in Google homepage is verified using *linktext*.

Log:

Running '3. Verify the link to Gmail homepage in Google homepage using linktext'	10:37:57
1. open on / OK	10:37:59
2. setWindowSize on 957x713 OK	10:38:00
3. click on linkText=Gmail OK	10:38:01
4. verifyTitle on Gmail - Email from Google OK	10:38:03
5. close OK	10:38:06
'3. Verify the link to Gmail homepage in Google homepage using linktext' completed successfully	10:38:06

iv. Verify the link to Google images homepage in Google homepage using *xpath*.

	Command	Target	Value
1	*open*	/	
2	*set window size*	957x713	
3	*click*	xpath=//a[contains(text(),'Images')]	
4	*verify title*	Google Images	
5	*close*		

Expected output:

- Link to Google images homepage in Google Homepage should be verified using *xpath*.

Actual Output:

- Link to Google images homepage in Google homepage is verified using *xpath*.

Log:

EXPERIMENT-2

Open www.facebook.com application and record login and logout using Selenium IDE. Write test cases by locating the web elements using the CSS Selectors as mentioned below.

i. **Locate the email input box using *tag and class*.**
ii. **Locate the password input box using *tag and id*.**
iii. **Locate the login button using *tag and attribute*.**
iv. **Locate the 'Email or Phone' and 'Password' input boxes using *tag, class and attribute*.**

i. Locate the email input box using *tag and class*.

	Command	Target	Value
1	*open*	/	
2	*set window size*	1533x845	
3	*click*	css=input.inputtext.login_form_input_box	
4	*type*	css=input.inputtext.login_form_input_box	lacktrust10@gmail.com
5	*click*	id=pass	
6	*type*	id=pass	stlab1234
7	*click*	id=loginbutton	
8	*pause*	5000	
9	*click*	linkText=Log Out	
10	*close*		

Expected output:

- The email input box should be located using tag and class.

Actual output:

- The email input box is located using tag and class.

Log:

Running '1. Locate the email input box using tag and class'

1. open on / OK
2. setWindowSize on 1533x845 OK
3. click on css=input.inputtext.login_form_input_box OK
4. type on css=input.inputtext.login_form_input_box with value lacktrust10@gmail.com OK
5. click on id=pass OK
6. type on id=pass with value stlab1234 OK
7. click on id=loginbutton OK
8. pause on 5000 OK
9. click on linkText=Log Out OK
10. close OK

'1. Locate the email input box using tag and class' completed successfully

ii. Locate the password input box using *tag and id*.

	Command	Target	Value
1	*open*	/	
2	*set window size*	1533x845	
3	*click*	id=email	
4	*type*	id=email	lacktrust10@gmail.com
5	*click*	css=input#pass	
6	*type*	css=input#pass	stlab1234
7	*click*	id=loginbutton	
8	*pause*	5000	
9	*click*	linkText=Log Out	
10	*close*		

Expected output:

- The password input box should be located using tag and id.

Actual output:

- The password input box is located using tag and id.

Log:

Running '2. Locate the password input box using tag and id'

1. open on / OK
2. setWindowSize on 1533x845 OK
3. click on id=email OK
4. type on id=email with value lacktrust10@gmail.com OK
5. click on css=input#pass OK
6. type on css=input#pass with value stlab1234 OK
7. click on id=loginbutton OK
8. pause on 5000 OK
9. click on linkText=Log Out OK
10. close OK

'2. Locate the password input box using tag and id' completed successfully

iii. Locate the login button using *tag and attribute*.

	Command	Target	Value
1	*open*	/	
2	*set window size*	1533x845	
3	*click*	id=email	
4	*type*	id=email	lacktrust10@gmail.com
5	*click*	id=pass	
6	*type*	id=pass	stlab1234
7	*click*	css=input[value="Log In"]	
8	*pause*	5000	
9	*click*	linkText=Log Out	
10	*close*		

Expected output:

- The login button should be located using tag and attribute.

Actual output:

- The login button is located using tag and attribute.

Log:

Running '3. Locate the login button using tag and attribute'

1. open on / OK
2. setWindowSize on 1533x845 OK
3. click on id=email OK
4. type on id=email with value lacktrust10@gmail.com OK
5. click on id=pass OK
6. type on id=pass with value stlab1234 OK
7. click on css=input[value="Log In"] OK
8. pause on 5000 OK
9. click on linkText=Log Out OK
10. close OK

'3. Locate the login button using tag and attribute' completed successfully

iv. Locate the 'Email or Phone' and 'Password' input boxes using *tag, class and attribute.*

	Command	Target	Value
1	*open*	/	
2	*set window size*	1533x845	
3	*click*	css=input.inputtext.login_form_input_box[id=email]	
4	*type*	css=input.inputtext.login_form_input_box[id=email]	lacktrust10@gmail.com
5	*click*	css=input.inputtext.login_form_input_box[id=pass]	
6	*type*	css=input.inputtext.login_form_input_box[id=pass]	stlab1234
7	*click*	id=loginbutton	
8	*pause*	5000	
9	*click*	linkText=Log Out	
10	*close*		

Expected output:

- The ‘Email or Phone’ and ‘Password’ input box should be located using tag, class and attribute.

Actual output:

- The ‘Email or Phone’ and ‘Password’ input box is located using tag, class and attribute.

Log:

Running '4. Locate the 'Email or Phone' and 'Password' input boxes using tag, class and attribute'

1. open on / OK
2. setWindowSize on 1533x845 OK
3. click on css=input.inputtext.login_form_input_box[id=email] OK
4. type on css=input.inputtext.login_form_input_box[id=email] with value lacktrust10@gmail.com OK
5. click on css=input.inputtext.login_form_input_box[id=pass] OK
6. type on css=input.inputtext.login_form_input_box[id=pass] with value stlab1234 OK
7. click on id=loginbutton OK
8. pause on 5000 OK
9. click on linkText=Log Out OK
10. close OK

'4. Locate the 'Email or Phone' and 'Password' input boxes using tag, class and attribute' completed successfully

EXPERIMENT-3

Automate the following using Selenium WebDriver:

- **Launch the browser and open https://www.facebook.com.**
- **Create new account.**
- **Check whether Male/Female Radio button is displayed on the same Webpage and print the status and display the validation result.**
- **Login using the Credentials.**
- **In the News Feed Section, click on the status text box.**
- **Write the Status and Post-it.**
- **Logout and Close the driver.**

PROGRAM:

```
package fbb;

import java.util.List;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.firefox.FirefoxDriver;
```

```
public class FBBB
{
	public static void main(String[] args)
	{
		System.setProperty("webdriver.gecko.driver","/home/student/geckodriver");
		WebDriver driver = new FirefoxDriver();

		String baseUrl = "https://www.facebook.com/";

		// maximize window
	driver.manage().window().maximize();

	// launch Fire fox and direct it to the Base URL
	driver.get(baseUrl);

	//Check for the presence of male and female buttons
	List<WebElement> radio = driver.findElements(By.cssSelector("input._8esa"));
	WebElement femaleradio = radio.get(0);
	Boolean femalepresent = femaleradio.isDisplayed();
	if (true == femalepresent)
	    System.out.println("Female radio button is present");
	else
	    System.out.println("Female radio button is absent");

	WebElement maleradio = radio.get(1);
	Boolean malepresent = maleradio.isDisplayed();
	if (true == malepresent)
	    System.out.println("Male radio button is present");
	else
	    System.out.println("Male radio button is absent");

	//Login using credentials
	WebElement email = driver.findElement(By.id("email"));
	WebElement password = driver.findElement(By.id("pass"));

	email.clear();
	email.sendKeys("username");

	password.clear();
	password.sendKeys("password");

	WebElement login = driver.findElement(By.id("loginbutton"));
	login.click();

	System.out.println("Log in successful");

	//Pause for some time
```

```
        try {Thread.sleep(5000);} catch (Exception e) {}

        //Click on News Feed link
        List<WebElement> News = driver.findElements(By.cssSelector("a._5afe"));
        WebElement NewsFeed = News.get(1);//get(0) contains link to user's page (ex. Krishnaraj
Bhat)
        NewsFeed.click();

        //Pause for some time
        try {Thread.sleep(3000);} catch (Exception e) {}

        System.out.println("News Feed section opened");


        WebElement CreatePost = driver.findElement(By.cssSelector("span._5qtp"));
        CreatePost.click();

        System.out.println("Create Post clicked");
        //Pause for some time
        try {Thread.sleep(2000);} catch (Exception e) {}

        WebElement WritePost = driver.findElement(By.cssSelector("div.notranslate._5rpu"));
        WritePost.click();
        WritePost.sendKeys("Selenium Testing");

        //Pause for some time
        try {Thread.sleep(2000);} catch (Exception e) {}

        //Post status
        WebElement PostButton =
driver.findElement(By.cssSelector("button._1mf7._4r1q._4jy0._4jy3._4jy1._51sy.selected._42ft"));
        PostButton.click();

        System.out.println("Posted status");

        //Pause for some time
        try {Thread.sleep(3000);} catch (Exception e) {}

        //Click user navigation label for logging out
        WebElement navigation = driver.findElement(By.id("userNavigationLabel"));
        navigation.click();

        //Pause for some time
        try {Thread.sleep(3000);} catch (Exception e) {}

        //Click on Logout
        WebElement logout =
driver.findElement(By.cssSelector("li._54ni.navSubmenu._6398._64kz.__MenuItem"));
```

```
        logout.click();

        System.out.println("Log out successful");

        //close Fire fox
        driver.close();
              }
}
```

Expected Output:

- Female radio button should be present in the Facebook homepage.
- Male radio button should be present in the Facebook page.
- User should successfully log in using the credentials.
- User must post the status successfully and log out successfully.

Actual Output:

- Female radio button is present in the Facebook homepage.
- Male radio button is present in the Facebook page.
- User is able to successfully login using the credentials.
- User can post the status successfully and logout successfully.

Log:

Female radio button is present

Male radio button is present

Login successful

News Feed section opened

Create Post checked

Posted Status

EXPERIMENT-4

Automate the following using Selenium WebDriver:

- **Use http://demo.guru99.com/test/upload/ to upload the file.**
- **Display the message for successful upload.**
- **Download the file.**
- **Close the driver.**

PROGRAM:

```
import java.io.IOException;

import org.openqa.selenium.*;
import org.openqa.selenium.firefox.FirefoxDriver;
public class UD {
   public static void main(String[] args) {
      System.setProperty("webdriver.gecko.driver","/home/student/geckodriver");
      String baseUrl = "http://demo.guru99.com/test/upload/";
      WebDriver driver = new FirefoxDriver();

      //maximize the window
      driver.manage().window().maximize();

      //Perform file upload
      System.out.println("Perform upload");
      driver.get(baseUrl);
      WebElement uploadElement = driver.findElement(By.id("uploadfile_0"));

      // enter the file path onto the file-selection input field
      uploadElement.sendKeys("/home/student/parta4.txt");
      System.out.println("File path entered");

      // check the "I accept the terms of service" check box
      driver.findElement(By.id("terms")).click();
      System.out.println("Checked the \"I accept the terms of service\" check box");

      // click the "Submit File" button
      driver.findElement(By.name("send")).click();
      System.out.println("Clicked the \"Submit File\" button");

      //Perform file download
      System.out.println("Perform download");
      baseUrl = "http://demo.guru99.com/test/yahoo.html";
      driver.get(baseUrl);

      WebElement downloadButton = driver.findElement(By.id("messenger-download"));
      String sourceLocation = downloadButton.getAttribute("href");
      System.out.println("Download location is "+ sourceLocation);
      String wget_command = "wget " + sourceLocation;


try
      {
          Process exec = Runtime.getRuntime().exec(wget_command);
         int exitVal = exec.waitFor();
         System.out.println("Exit value: " + exitVal);
         if (0 == exitVal)
            System.out.println("File downloaded successfully from location "+ sourceLocation);
```

```
        }
        catch (InterruptedException | IOException ex)
        {
              System.out.println(ex.toString());
        }
        driver.close();
        }
}
```

Expected Output:

- User should upload any file to guru99 site successfully.
- Message for successful upload should be printed.
- User should download the file successfully.
- User should close the driver successfully.

Actual Output:

- User is able to upload any file successfully.
- Message for successful upload is printed.
- User is able to download the file successfully.
- User is able to close the driver successfully.

Log:

Perform upload

File path entered

Checked the \"I accept the terms of service\" check box

Clicked the \"Submit File\" button

Perform download

Download location is http://demo.guru99.com/test/msgrllus.exe

Exit value: 0

File downloaded successfully from location http://demo.guru99.com/test/msgrllus.exe

PART B

EXPERIMENT-1

Open http://www.newtours.demoaut.com, automate the following using annotations in TestNG framework with Selenium WebDriver:

- **Verify the title of the homepage.**
- **Click on REGISTER and verify the title of its target page.**
- **Go back to the homepage and verify if it still has the correct title.**
- **Click on SUPPORT and verify the title of its target page.**
- **Go back to the homepage and verify if it still has the correct title.**
- **Click on CONTACT and verify the title of its target page.**
- **Click on BACK TO HOME and verify if it still has the correct title.**

PROGRAM:

```
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.firefox.FirefoxDriver;

import org.testng.annotations.Test;
import org.testng.annotations.BeforeMethod;
import org.testng.annotations.BeforeTest;
import org.testng.annotations.AfterTest;

import org.testng.Assert;

public class NewTest
{
                String baseURL = " http://www.newtours.demoaut.com ";
                WebDriver driver;
                String actualtitle, expectedtitle;
                WebElement home;

        @BeforeTest
          public void beforeTest()
          {
                        System.setProperty("webdriver.gecko.driver", "/home/student/
geckodriver");
                        driver = new FirefoxDriver();
                        driver.get(baseURL);
                        driver.manage().window().maximize();
          }

        @BeforeMethod
          public void beforeMethod()
          {
                        System.out.println ("Verifying \"Home\" link");
                        expectedtitle = "Welcome: Mercury Tours";
```

```
                        actualtitle = driver.getTitle();
                        Assert.assertEquals(actualtitle, expectedtitle);
        }

        @Test (priority = 1)
        public void verifyRegister()
        {
                        System.out.println ("Verifying \"Register\" link");
                        WebElement register =
driver.findElement(By.linkText("REGISTER"));
                        register.click();
                        try {Thread.sleep(2000);} catch (Exception e) {}
                        expectedtitle = "Register: Mercury Tours";
                        actualtitle = driver.getTitle();
                        Assert.assertEquals(actualtitle, expectedtitle);
                        home = driver.findElement(By.linkText("Home"));
                        home.click();
                        try {Thread.sleep(2000);} catch (Exception e) {}
        }

        @Test (priority = 2)
        public void verifySupport()
        {
                        System.out.println ("Verifying \"Support\" link");
                        WebElement support = driver.findElement(By.linkText("SUPPORT"));
                        support.click();
                        try {Thread.sleep(2000);} catch (Exception e) {}
                        expectedtitle = "Support: Mercury Tours";
                        actualtitle = driver.getTitle();
                        Assert.assertEquals(actualtitle, expectedtitle);
                        home = driver.findElement(By.linkText("Home"));
                        home.click();
                        try {Thread.sleep(2000);} catch (Exception e) {}
        }

        @Test (priority = 3)
        public void verifyContact()
        {
                        System.out.println ("Verifying \"Contact\" link");
                        WebElement contact = driver.findElement(By.linkText("CONTACT"));
                        contact.click();
                        try {Thread.sleep(2000);} catch (Exception e) {}
                        expectedtitle = "Contact: Mercury Tours";
                        actualtitle = driver.getTitle();
                        Assert.assertEquals(actualtitle, expectedtitle);
                        //Click on BACK TO HOME image
                        home = driver.findElement(By.xpath("//html/body/div[2]/table/tbody/
tr/td[2]/table/tbody/tr[4]/td/table/tbody/tr[1]/td[2]/table/tbody/tr[4]/td/a/img"));
```

```
                        home.click();
                        try {Thread.sleep(2000);} catch (Exception e) {}
                        beforeMethod();
        }

        @AfterTest
        public void afterTest()
        {
                        driver.close();
        }

}
```

Expected Result:

- User should be able to open the new tour page.
- User should be able to verify the title of the homepage
- User should be able to go to the register page and verify the title of the target page
- User should be able to go back to the home page and verify if it still has the correct title and do the same for Support and Contact

Actual Result:

- User is able to open the new tour page.
- User is able to verify the title of the homepage
- User is able to go to the register page and verify the title of the target page
- User is able to go back to the home page and verify if it still has the correct title and do the same for Support and Contact

Log:

Verifying “Home” link
Verifying “Register” link
Verifying “Home” link
Verifying “Support” link
Verifying “Contact” link
Verifying “Home” link

PASSED : Verify Register
PASSED: Verify Support
PASSED: Verify Contact

_ _

Default test
Test run: 3, Failures:0, Skips:0

_ _

EXPERIMENT-2

Perform the parallel automation of the following using TestNG framework with Selenium WebDriver:

- **Open https://www.redbus.in, verify the presence of buses between two places on specific dates.**
- **Open https://www.amazon.in, verify the login using valid username and password, and logout.**
- **Google search for NMAMIT Nitte, verify that the college website homepage is opened by clicking on the link to college website.**

PROGRAM:

```
import org.testng.annotations.*;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.interactions.Actions;
import org.testng.Assert;
import org.openqa.selenium.*;

public class PT
{
	String driverPath = "/home/student/geckodriver";
	int bigsleep = 5000, smallsleep = 2000;

	@Test
	public void redbusSession()
	{
		System.setProperty("webdriver.gecko.driver", driverPath);
		WebDriver driver = new FirefoxDriver();
		driver.manage().window().maximize();
		driver.get("https://www.redbus.in");
		try {Thread.sleep(smallsleep);} catch (Exception e) {}
		System.out.println (driver.getTitle());

		//Fill source details
		WebElement src = driver.findElement(By.cssSelector("input#src.db"));
		src.click();
		src.clear();
		src.sendKeys("Udupi");
```

```
		try {Thread.sleep(smallsleep);} catch (Exception e) {}
		src.sendKeys(Keys.ENTER);

		try {Thread.sleep(bigsleep);} catch (Exception e) {}

		//Fill destination details
		WebElement dest = driver.findElement(By.cssSelector("input#dest.db"));
		dest.click();
		dest.clear();
		dest.sendKeys("Bangalore");
		try {Thread.sleep(smallsleep);} catch (Exception e) {}
		src.sendKeys(Keys.ENTER);

		try {Thread.sleep(bigsleep);} catch (Exception e) {}

		//Select a date
		WebElement date = driver.findElement(By.cssSelector("label.db.text-trans-uc"));
		date.click();
		try {Thread.sleep(smallsleep);} catch (Exception e) {}

		//Users of below code must change the xpath to that of date to be selected
		WebElement select = driver.findElement(By.xpath("//html/body/div[6]/table/tbody/
tr[7]/td[2]"));
		Actions actions = new Actions(driver);
		actions.moveToElement(select).build().perform();
		System.out.println ("Moved cursor over date");
		actions.click(select).build().perform();
		System.out.println ("Clicked over date");
		try {Thread.sleep(bigsleep);} catch (Exception e) {}

		//Click the search button
		driver.findElement(By.cssSelector("button#search_btn")).click();
		try {Thread.sleep(bigsleep);} catch (Exception e) {}

		//Make sure that search has happened
		String actualtitle = driver.getTitle();
		Assert.assertEquals(actualtitle, "Search Bus Tickets");

		driver.close();
	}

	@Test
	public void amazonSession()
	{
		System.setProperty("webdriver.gecko.driver", driverPath);
		WebDriver driver = new FirefoxDriver();
		driver.manage().window().maximize();
		driver.get("https://www.amazon.in");
```

```
        try {Thread.sleep(bigsleep);} catch (Exception e) {}
        System.out.println (driver.getTitle());

        //Click on sign in button
        WebElement signin = driver.findElement(By.id("nav-link-accountList"));
        signin.click();
        try {Thread.sleep(bigsleep);} catch (Exception e) {}


        //Enter email
        WebElement email = driver.findElement(By.id("ap_email"));
        email.clear();
        email.sendKeys("username");

        //Click continue button
        WebElement proceed = driver.findElement(By.id("continue"));
        proceed.click();
        try {Thread.sleep(bigsleep);} catch (Exception e) {}

        //Enter email
        WebElement password = driver.findElement(By.id("ap_password"));
        password.clear();
        password.sendKeys("password");

        //Click Login
        WebElement login = driver.findElement(By.id("signInSubmit"));
        login.click();
        try {Thread.sleep(bigsleep);} catch (Exception e) {}

        String expectedtitle = "Online Shopping site in India: Shop Online for Mobiles, Books, Watches, Shoes and More - Amazon.in";
        String actualtitle = driver.getTitle();
        Assert.assertEquals(actualtitle,expectedtitle);

        //Note: Below commented code for logout works sometimes and sometimes not
        /*//Move the mouse over Account & Lists
        WebElement signout = driver.findElement(By.id("nav-link-accountList"));
        Actions actions = new Actions(driver);
        actions.moveToElement(signout).build().perform();
        try {Thread.sleep(bigsleep);} catch (Exception e) {}

        //Perform sign out
        driver.findElement(By.id("nav-item-signout")).click();
        try {Thread.sleep(bigsleep);} catch (Exception e) {}*/
        driver.close();
    }

    @Test
```

```
	public void nmamitSession()
	{
		System.setProperty("webdriver.gecko.driver", driverPath);
		WebDriver driver = new FirefoxDriver();
		driver.manage().window().maximize();
		driver.get("https://www.google.com");

		WebElement search = driver.findElement(By.name("q"));
		search.clear();
		search.sendKeys("nmamit nitte");
		search.sendKeys(Keys.ENTER);

		try {Thread.sleep(bigsleep);} catch (Exception e) {}

		driver.findElement(By.partialLinkText("NMAMIT")).click();

		//As our college web site takes more time to load, increase the delay based on need
		try {Thread.sleep(bigsleep);} catch (Exception e) {}
		try {Thread.sleep(bigsleep);} catch (Exception e) {}
		String actualtitle = driver.getTitle();
		Assert.assertEquals(actualtitle, "Best Engineering College in Karnataka | NMAMIT");
		System.out.println (actualtitle);
		driver.close();
	} }
```

testng.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE suite SYSTEM "http://testng.org/testng-1.0.dtd">
<suite name="TestSuite" thread-count="3" parallel="methods" >
<test name="testmultisites">
<classes>
<class name="PT">
</class>
</classes>
</test>
</suite>
```

Expected result:

- User should be able to open https://www.redbus.in and verify the presence of buses between two places on specific dates.
- User should be able to open https://www.amazon.in and verify the login using valid username and password, and then logout.

- User should be able to Google search NMAMIT Nitte and verify that the college website homepage is opened by clicking on the link to college website.

Actual result:

- User is able to open https://www.redbus.in and verify the presence of buses between two places on specific dates.
- User is able to open https://www.amazon.in and verify the login using valid username and password, and then logout.
- User is able to Google search NMAMIT Nitte and verify that the college website homepage is opened by clicking on the link to college website.

Log:

Online Shopping site in India: Shop Online for Mobiles, Books, Watches, Shoes and More – Amazon.in

Best Engineering College in Karnataka | NMAMIT

Search Bus Tickets

Moved cursor over date

Clicked over date
PASSED : amazon Session
PASSED: nmamit Session
PASSED: redbus Session

Default test
Test run: 3, Failures:0, Skips:0

Default suite
Total tests run: 3, Passes:3, Failures:0, Skips:0

EXPERIMENT-3

Write multiple test suites using TestNG framework with Selenium WebDriver to automate the following:

- **Open https://www.flipkart.com and https://www.snapdeal.com.**
- **Login to the application.**
- **Search for product and select the first item in the search results and then BuyAndRemove items From the Cart.**
- **Logout and close the driver.**

PROGRAM:

Flipkart:

```
package com.suite1;

import org.testng.Assert;
```

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

import java.util.ArrayList;

import org.openqa.selenium.*;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.interactions.Actions;

public class Flipkart
{
	WebDriver driver;
	String baseURL = "https://www.flipkart.com";
	int smallsleep = 1500, bigsleep = 3000;
	String expectedtitle, actualtitle;

	@BeforeTest
	public void beforeTest()
	{
		System.setProperty("webdriver.gecko.driver", "/home/student/geckodriver");

		driver = new FirefoxDriver();
		driver.manage().window().maximize();
		driver.get(baseURL);

		try { Thread.sleep(bigsleep); } catch (Exception e) { System.out.println
(e.toString());}
	}

	@Test (priority = 1)
	public void login()
	{
		//Check whether we have entered flipkart site
		expectedtitle = "Online Shopping Site for Mobiles, Electronics, Furniture, Grocery,
Lifestyle, Books & More. Best Offers!";
		actualtitle = driver.getTitle();
		Assert.assertEquals(actualtitle, expectedtitle);

		//Provide username and and password and login
		WebElement username =
driver.findElement(By.cssSelector("input._2zrpKA._1dBPDZ"));
		username.sendKeys("username");

		WebElement password =
driver.findElement(By.cssSelector("input._2zrpKA._3v41xv._1dBPDZ"));
		password.sendKeys("password");

		WebElement loginbutton =
driver.findElement(By.cssSelector("button._2AkmmA._1LctnI._7UHT_c"));
```

```
                loginbutton.click();

                try { Thread.sleep(bigsleep); } catch (Exception e) { System.out.println
(e.toString()); }
        }

        @Test (priority = 2)
        public void serachForItem()
        {
                WebElement searchbox = driver.findElement(By.cssSelector("input.LM6RPg"));
                searchbox.sendKeys("Oppo A7 (Glaring Gold, 64GB)");

                WebElement searchbutton = driver.findElement(By.cssSelector("button.vh79eN"));
                searchbutton.click();

                try { Thread.sleep(bigsleep); } catch (Exception e) { System.out.println
(e.toString()); }
        }

        @Test (priority = 3)
        public void selectAndAddToCart()
        {
                expectedtitle = "Oppo A7 (Glaring Gold, 64GB) - Buy Products Online at Best Price
in India - All Categories | Flipkart.com";
                actualtitle = driver.getTitle();
                Assert.assertEquals(actualtitle, expectedtitle);

                //Select
                WebElement item = driver.findElement(By.cssSelector("div._3wU53n"));
                item.click();

                try { Thread.sleep(bigsleep); } catch (Exception e) { System.out.println
(e.toString()); }

                //Close the previous tab and switch driver to new opened tab
                ArrayList<String> tabs = new ArrayList<String> (driver.getWindowHandles());
                driver.close();
                driver.switchTo().window(tabs.get(1));

                expectedtitle = "OPPO A7 ( 64 GB Storage, 4 GB RAM ) Online at Best Price On
Flipkart.com";
                actualtitle = driver.getTitle();
                Assert.assertEquals(actualtitle, expectedtitle);

                //Add to cart
                WebElement addToCartButton =
driver.findElement(By.cssSelector("button._2AkmmA._2Npkh4._2MWPVK"));
                addToCartButton.click();
```

```
		try { Thread.sleep(bigsleep); } catch (Exception e) { System.out.println
(e.toString()); }
	}

	@Test (priority = 4)
	public void logout()
	{
		expectedtitle = "Shopping Cart | Flipkart.com";
		actualtitle = driver.getTitle();
		Assert.assertEquals(actualtitle, expectedtitle);

		WebElement myaccount = driver.findElement(By.cssSelector("div._2aUbKa"));
		Actions actions = new Actions(driver);
		actions.moveToElement(myaccount).build().perform();

		try { Thread.sleep(smallsleep); } catch (Exception e) { System.out.println
(e.toString()); }

		WebElement Logout = driver.findElement(By.cssSelector("a._2k68Dy"));
		Logout.click();

		try { Thread.sleep(bigsleep); } catch (Exception e) { System.out.println
(e.toString()); }
	}
	@AfterTest
	public void afterTest()
	{
		driver.close();
	}
}
```

Snapdeal:

```
package com.suite2;

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

```
import java.util.ArrayList;

import org.openqa.selenium.*;
import org.openqa.selenium.firefox.FirefoxDriver;
import org.openqa.selenium.interactions.Actions;

public class Snapdeal
{
	WebDriver driver;
	String baseURL = "https://www.snapdeal.com/";
	int smallsleep = 1500, bigsleep = 3000;
	String expectedtitle, actualtitle;

	@BeforeTest
	public void beforeTest()
	{
		System.setProperty("webdriver.gecko.driver", "/home/student/geckodriver");

		driver = new FirefoxDriver();
		driver.manage().window().maximize();
		driver.get(baseURL);

		try { Thread.sleep(bigsleep); } catch (Exception e) { System.out.println
(e.toString());}
	}

	@Test (priority = 1)
	public void login()
	{
		//Check whether we have entered flipkart site
		expectedtitle = "Online Shopping Site India - Shop Electronics, Mobiles, Men &
Women Clothing, Shoes - www. Snapdeal.com";
		actualtitle = driver.getTitle();
		Assert.assertEquals(actualtitle, expectedtitle);

		//Move the cursor onto "Sign in"
		WebElement signin = driver.findElement(By.cssSelector("div.accountInner"));
		Actions action = new Actions(driver);
		action.moveToElement(signin).build().perform();

		try { Thread.sleep(smallsleep); } catch (Exception e) { System.out.println
(e.toString());}

		//Click Login button
		WebElement login =
driver.findElement(By.cssSelector("span.accountBtn.btn.rippleWhite"));
		login.click();
```

```
		try { Thread.sleep(bigsleep); } catch (Exception e) { System.out.println
(e.toString());}

		//Switch to login frame
		driver.switchTo().frame("loginIframe");

		//Provide username
		WebElement username = driver.findElement(By.xpath("//*[@id=\"userName\"]"));
		username.sendKeys("username");

		//Click on continue button
		WebElement continuebutton = driver.findElement(By.id("checkUser"));
		continuebutton.click();

		try { Thread.sleep(bigsleep); } catch (Exception e) { System.out.println
(e.toString());}

		WebElement password = driver.findElement(By.id("j_password_login_uc"));
		password.sendKeys("password");

		WebElement loginbutton = driver.findElement(By.id("submitLoginUC"));
		loginbutton.click();

		//Come out of the frame
		driver.switchTo().defaultContent();

		try { Thread.sleep(bigsleep); } catch (Exception e) { System.out.println
(e.toString()); }
	}

	@Test (priority = 2)
	public void serachForItem()
	{
		WebElement searchbox = driver.findElement(By.id("inputValEnter"));
		searchbox.sendKeys("Oppo A5S CPH1909 ( 64GB , 4 GB ) Gold");

		WebElement searchbutton =
driver.findElement(By.cssSelector("button.searchformButton.col-xs-4.rippleGrey"));
		searchbutton.click();

		try { Thread.sleep(bigsleep); } catch (Exception e) { System.out.println
(e.toString()); }
	}

	@Test (priority = 3)
	public void selectAndAddToCart()
	{
```

```
	expectedtitle = "Snapdeal.com - Online shopping India- Discounts - shop Online Perfumes, Watches, sunglasses etc";
		actualtitle = driver.getTitle();
		Assert.assertEquals(actualtitle, expectedtitle);

		//Click on the selected item
		WebElement item = driver.findElement(By.cssSelector("img.product-image "));
		item.click();

		try { Thread.sleep(bigsleep); } catch (Exception e) { System.out.println (e.toString()); }

		//Close the previous tab and switch driver to new opened tab
		ArrayList<String> tabs = new ArrayList<String> (driver.getWindowHandles());
		driver.close();
		driver.switchTo().window(tabs.get(1));

		expectedtitle = "Oppo A5S CPH1909 ( 64GB , 4 GB ) Gold Mobile Phones Online at Low Prices | Snapdeal India";
		actualtitle = driver.getTitle();
		Assert.assertEquals(actualtitle, expectedtitle);

		//Add to cart
		WebElement addToCartButton = driver.findElement(By.id("add-cart-button-id"));
		addToCartButton.click();

		try { Thread.sleep(bigsleep); } catch (Exception e) { System.out.println (e.toString()); }
	}

	@Test (priority = 4)
	public void logout()
	{
		WebElement myaccount = driver.findElement(By.cssSelector("div.accountInner"));
		Actions actions = new Actions(driver);
		actions.moveToElement(myaccount).build().perform();

		try { Thread.sleep(smallsleep); } catch (Exception e) { System.out.println (e.toString()); }

		WebElement Logout = driver.findElement(By.cssSelector("a.accountBtn.rippleWhite.sign.logout-account"));
		Logout.click();

		try { Thread.sleep(bigsleep); } catch (Exception e) { System.out.println (e.toString()); }
	}
	@AfterTest
```

```java
    public void afterTest()
    {
        driver.close();
    }
```

testng.xml:

```xml
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE suite SYSTEM "http://testng.org/testng-1.0.dtd">
<suite thread-count="2" verbose="1" name="Multiple Test Suite" annotations="JDK"
parallel="tests">
<test name="flipkart">
<classes>
<class name="com.suite1.Flipkart"/>
</classes>
</test>
<test name="snapdeal">
<classes>
<class name="com.suite2.Snapdeal"/>
</classes>
</test>
</suite>
```

Expected result:

- User should login to flipkart and snapdeal successfully
- User should successfully search for an item and add the first item to the cart
- User should successfully logout from both flipkart and snapdeal successfully

Actual result:

- User is able to login to flipkart and snapdeal successfully
- User is able to successfully search for an item and add the first item to the cart
- User is able to successfully logout from both flipkart and snapdeal successfully

Log:

```
_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _  _ _ _ _ _ _ _ _ _ _ _ _ _ _

Multiple Test Suite
Total tests run: 8, Passes:8, Failures:0, Skips:0

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _  _ _ _ _ _ _ _ _ _ _ _ _ _ _
```