Exercise 1:

Write a script to open google.co.in using chrome browser (ChromeDriver)

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


public class SeleniumScript2
{
  public static void main(String[] args) throws InterruptedException
  {
    // Mention here location of downloaded chrome driver path

System.setProperty("webdriver.chrome.driver","D:/NGA/chromedriver.exe");
    ChromeDriver driver=new ChromeDriver();
    driver.get("https://www.google.co.in");
    driver.close();
  }
}
```

Exercise 2:

Scenario:

1. Open the Firefox browser.
2. Maximize the browser window.
3. Navigate to “https://testingbuddy.co.in/?p=169”.
4. Write a method to print PASS if the title of the page matches with “QA Automation Tools Trainings and Tutorials | QA Tech Hub” else FAIL. (If you are familiar with TestNG or JUnit use assert statement like assert.assertequals(actual, expected) to give a verdict of the pass or fail status.
5. Navigate to the Facebook page (https://www.facebook.com)
6. Navigate back to the QA Tech Hub website.
7. Print the URL of the current page.
8. Navigate forward.
9. Reload the page.

10. Close the Browser.

```
package com.test.traveltest;

import java.util.concurrent.TimeUnit;

 import org.openqa.selenium.firefox.FirefoxDriver;

import org.testng.Assert;

 import org.testng.annotations.AfterTest;

import org.testng.annotations.BeforeTest;

import org.testng.annotations.Test;

 public class Assignment1

 {

FirefoxDriver driver;

 String tbUrl = "https://testingbuddy.co.in/?p=169";

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


 @BeforeTest

 public void invokeBrowser()

{

System.setProperty("webdriver.gecko.driver", "D:\\Selenium\\geckodriver-v0.31.0-
win64\\geckodriver.exe");

 driver = new FirefoxDriver();

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

 driver.manage().timeouts().pageLoadTimeout(20, TimeUnit.SECONDS); driver.get(tbUrl);

 }

 @Test(priority=0)

public void Test1()

{

String titleOfThePage = driver.getTitle();

System.out.println(titleOfThePage);

Assert.assertEquals(titleOfThePage, "Difference between abstract class and interface -
Testingbuddy"); }

 @Test(priority= 1) public void Test2()

 { driver.navigate().to(facebookUrl);
```

```
String currentUrl = driver.getCurrentUrl();

System.out.println("Current URL :: " + currentUrl); driver.navigate().back();
driver.navigate().forward(); driver.navigate().refresh();

 }

@AfterTest public void testComplete()

{

 driver.quit();

 }

 }
```

Exercise 3:

Number of Links on a Page:

Scenario:

1. Open a Browser (write the generic code such that by changing the parameter browser can be changed.)
2. Navigate to https://flipkart.com website.
3. Write a method to find the count (number of) links on the homepage of Flipkart.
4. Write another method to print link text and URLs of all the links on the page of Flipkart.

```
package com.test.traveltest;


import java.util.List;

import java.util.concurrent.TimeUnit;


import org.openqa.selenium.By;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.firefox.FirefoxDriver;

import org.testng.annotations.AfterTest;

import org.testng.annotations.BeforeClass;
```

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

public class Assignment3 {
	WebDriver driver;
	String flipkartUrl = "https://www.flipkart.com";

	@BeforeClass
	public void invokeBrowser(){
		System.setProperty("webdriver.gecko.driver",
				"D:\\Selenium\\geckodriver-v0.31.0-win64\\geckodriver.exe");
		driver = new FirefoxDriver();

		driver.manage().window().maximize();
		driver.manage().deleteAllCookies();
		driver.manage().timeouts().pageLoadTimeout(90, TimeUnit.SECONDS);
		driver.manage().timeouts().implicitlyWait(6, TimeUnit.SECONDS);
		driver.get(flipkartUrl);
	}



	@Test
	public void getLinkCount(){
		List<WebElement> allLink = driver.findElements(By.tagName("a"));
		System.out.println("Number of links on a page :: "+allLink.size());
	}

	@Test
	public void getLinkUrl(){
		String url = driver.findElement(By.linkText("Amazon Pay")).getAttribute("href");
```

```
            System.out.println("Url :: "+ url);
        }
        @Test
        public void getAllLinkInfo(){
            List<WebElement> allLink = driver.findElements(By.tagName("a"));

            for(WebElement link:allLink){
                System.out.println("Link Text :: "+ link.getText());
                System.out.println("Link URL  :: "+ link.getAttribute("href"));

                System.out.println("----------------------------------------");
            }
        }
        @AfterTest
        public void testComplete() {
            driver.close();
        }
    }
```

Exercise 4: Using Selenium Test Automation - Search for any specific Laptop in Flipkart website and add it to Bag

[In the solution ,it is using firefox but you have to do it by using google chrome]

Solution:

```
import java.util.Iterator;
import java.util.Set;
import java.util.concurrent.TimeUnit;

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

```
public class Demo {

 public static void main(String args[]) {

  WebDriver driver = new FirefoxDriver();

  driver.get("http://www.flipkart.com");

  driver.manage().timeouts().implicitlyWait(10,TimeUnit.SECONDS);

  try {


   if(driver.findElement(By.xpath("//input[@type='password']")).isDisplayed()) {

   driver.findElement(By.xpath("(//button)[2]")).click();

         }

  }catch(Throwable t) {

   System.out.println("Lightbox not displayed");

  }


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

  driver.findElement(By.name("q")).sendKeys("Acer Aspire 3 Pentium Quad Core");

  driver.findElement(By.xpath("//button[@type='submit']")).click();
```

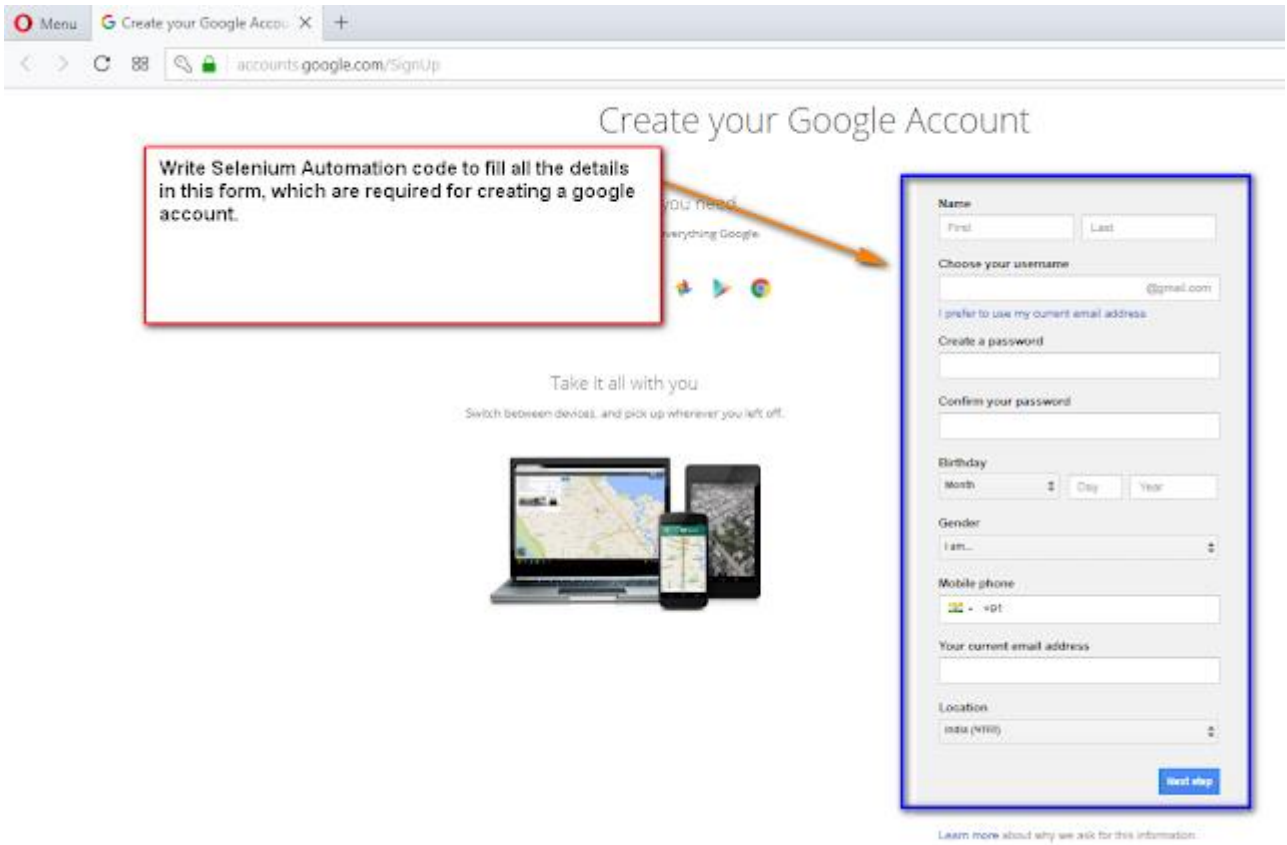
```
driver.findElement(By.xpath("(//div[contains(text(),'Laptop')])[1]")).click();

Set<String> windows = driver.getWindowHandles();

Iterator<String> itr = windows.iterator();

String mainWindow = itr.next();

String childWindow = itr.next();

driver.switchTo().window(childWindow);

try {


 if(driver.findElement(By.xpath("//input[@type='password']")).isDisplayed()) {

    driver.findElement(By.xpath("(//button)[2]")).click();

   }

}catch(Throwable t) {

 System.out.println("Lightbox not displayed");

}

if(driver.getTitle().contains("Acer Aspire")) {

 driver.findElement(By.xpath("(//button)[2]")).click();
```

```
 }

 System.out.println("Item added to bag sucessfully");

 }

}
```

Exercise 5: Using Selenium Test Automation - Create a google account by providing all the details

The below is the problem and solution code for creating a google account by providing all the details from Name to Locations fields.

Problem:



Solution:

```
public class Demo {

 public static void main(String[] args) {

      WebDriver driver = new FirefoxDriver();

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

      driver.get("https://accounts.google.com/SignUp");

      driver.findElement(By.id("FirstName")).sendKeys("Selenium");
      driver.findElement(By.id("LastName")).sendKeys("ByArun");
      driver.findElement(By.id("GmailAddress")).sendKeys("SeleniumByArunDemoThree");
      driver.findElement(By.id("Passwd")).sendKeys("DemoPassword");
      driver.findElement(By.id("PasswdAgain")).sendKeys("DemoPassword");
      driver.findElement(By.cssSelector("div[title='Birthday']")).sendKeys("March");
      driver.findElement(By.id("BirthDay")).sendKeys("12");
      driver.findElement(By.id("BirthYear")).sendKeys("1990");
      driver.findElement(By.cssSelector(" div[title='Gender']")).sendKeys("Male");
      driver.findElement(By.id("RecoveryPhoneNumber")).sendKeys("9123455432");

driver.findElement(By.id("RecoveryEmailAddress")).sendKeys("seleniumtraining11292017@gmail.co
m");
      driver.findElement(By.cssSelector("#CountryCode div[title='Location']")).sendKeys("India");

 }

}
```

Exercise 6: : Automate the 'User Registration and Login' of Amazon like an e-commerce website

This section is focused on covering all the scenarios for User Registration for an e-commerce website. In this assignment, you will learn the different Selenium commands which are used to handle the web form. A web form is generally a collection of web elements like text boxes, radio buttons, selection boxes, etc. And in web testing, we mostly face web forms and 90% of testing revolves around web forms. We are going to cover both positive and negative scenarios for User Registration.

Positive Scenario

1. Test Case - Automate the User Registration process of an e-commerce website.

Steps to Automate:

1. Open this URL http://automationpractice.com/index.php
2. Click on the sign-in link.
3. Enter your email address in the 'Create and Account' section.
4. Click on Create an Account button.
5. Enter your Personal Information, Address, and Contact info.
6. Click on the Register button.
7. Validate that the user is created.

Selenium code for User Registration:

```
import java.util.concurrent.TimeUnit;

import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
import org.openqa.selenium.support.ui.Select;
import io.github.bonigarcia.wdm.WebDriverManager;

public class EcomSignUp {

 public static void main(String[] args) {
```

```
WebDriverManager.chromedriver().setup();
WebDriver driver=new ChromeDriver();
String URL="http://automationpractice.com/index.php";

driver.get(URL);
driver.manage().timeouts().implicitlyWait(2000, TimeUnit.MILLISECONDS);
driver.manage().window().maximize();

//Click on Sign in
driver.findElement(By.linkText("Sign in")).click();

//Enter email address
driver.findElement(By.cssSelector("[name='email_create']")).sendKeys("test1249@test.com");

//Click on "Create an account"
driver.findElement(By.xpath("//button[@name=\"SubmitCreate\"]")).click();

//Select Title
driver.findElement(By.xpath("//input[@id=\"id_gender1\"]")).click();
driver.findElement(By.name("customer_firstname")).sendKeys("Test User");
driver.findElement(By.name("customer_lastname")).sendKeys("Vsoft");
driver.findElement(By.id("passwd")).sendKeys("PKR@PKR");

// Enter your address
driver.findElement(By.id("firstname")).sendKeys("Test User");
driver.findElement(By.id("lastname")).sendKeys("Vsoft");
driver.findElement(By.id("company")).sendKeys("Vsoft");
driver.findElement(By.id("address1")).sendKeys("Test 81/1,2nd cross");
driver.findElement(By.id("city")).sendKeys("XYZ");

// Select State
```

```
 WebElement statedropdown=driver.findElement(By.name("id_state"));
 Select oSelect=new Select(statedropdown);
 oSelect.selectByValue("4");

 driver.findElement(By.name("postcode")).sendKeys("51838");

 // Select Country
 WebElement countrydropDown=driver.findElement(By.name("id_country"));
 Select oSelectC=new Select(countrydropDown);
 oSelectC.selectByVisibleText("United States");

 //Enter Mobile Number
 driver.findElement(By.id("phone_mobile")).sendKeys("234567890");
 driver.findElement(By.xpath("//input[@name=\"alias\"]")).clear();
 driver.findElement(By.xpath("//input[@name=\"alias\"]")).sendKeys("Office");
 driver.findElement(By.name("submitAccount")).click();
 String
userText=driver.findElement(By.xpath("//*[@id=\"header\"]/div[2]/div/div/nav/div[1]/a")).getText();

 // Validate that user has created
 if(userText.contains("Vsoft")) {
  System.out.println("User Verified,Test case Passed");
 }
 else {
  System.out.println("User Verification Failed,Test case Failed");
 }
}
}
```

Exercise 7 : **<u>Negative Scenarios</u>**

Test Case - Verify invalid email address error.

Steps to Automate:

1. Open this URL http://automationpractice.com/index.php

2. Click on the sign-in link.
3. Enter an invalid email address in the email box and click enter.
4. Validate that an error message is displaying saying "Invalid email address."

Exercise 8: Test Case - Verify error messages for mandatory fields.

Steps to Automate:

1. Open this URL http://automationpractice.com/index.php

2. Click on the sign-in link.
3. Enter your email address and click the Register button.
4. Leave the mandatory fields (marked with *) blank and click the Register button.
5. Verify that an error has been displayed for the mandatory fields.