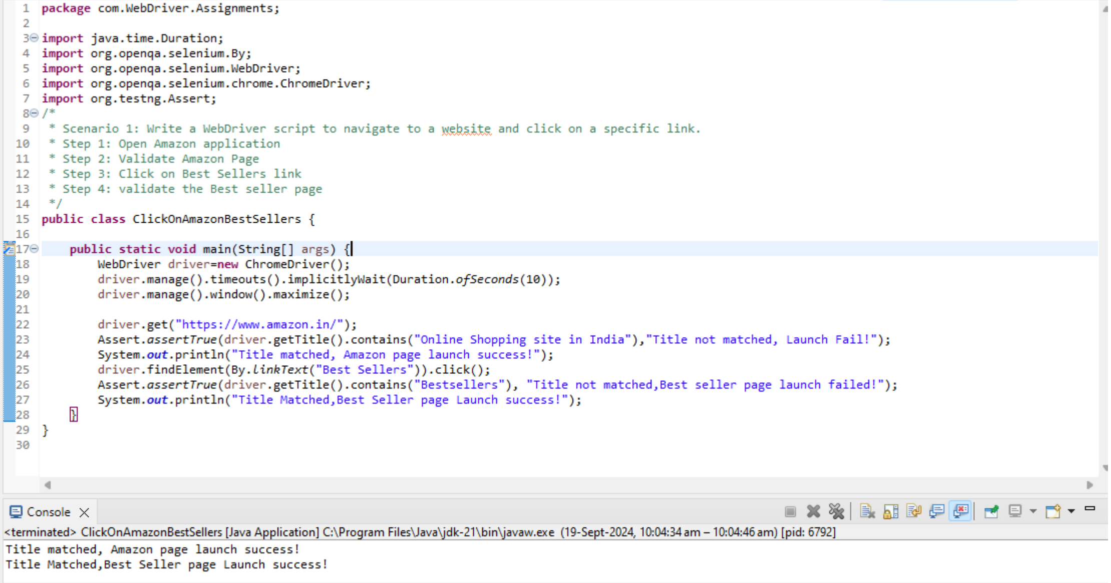
Web Driver Assignment

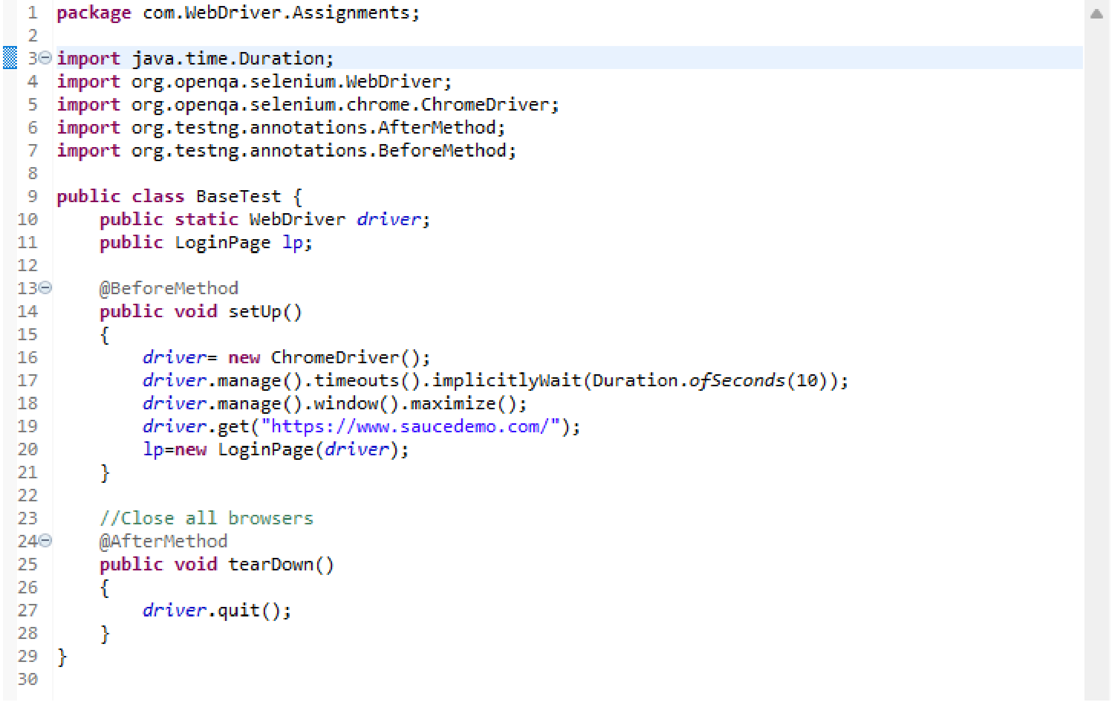
1. Write a Web Driver script to navigate to a website and click on a specific link.



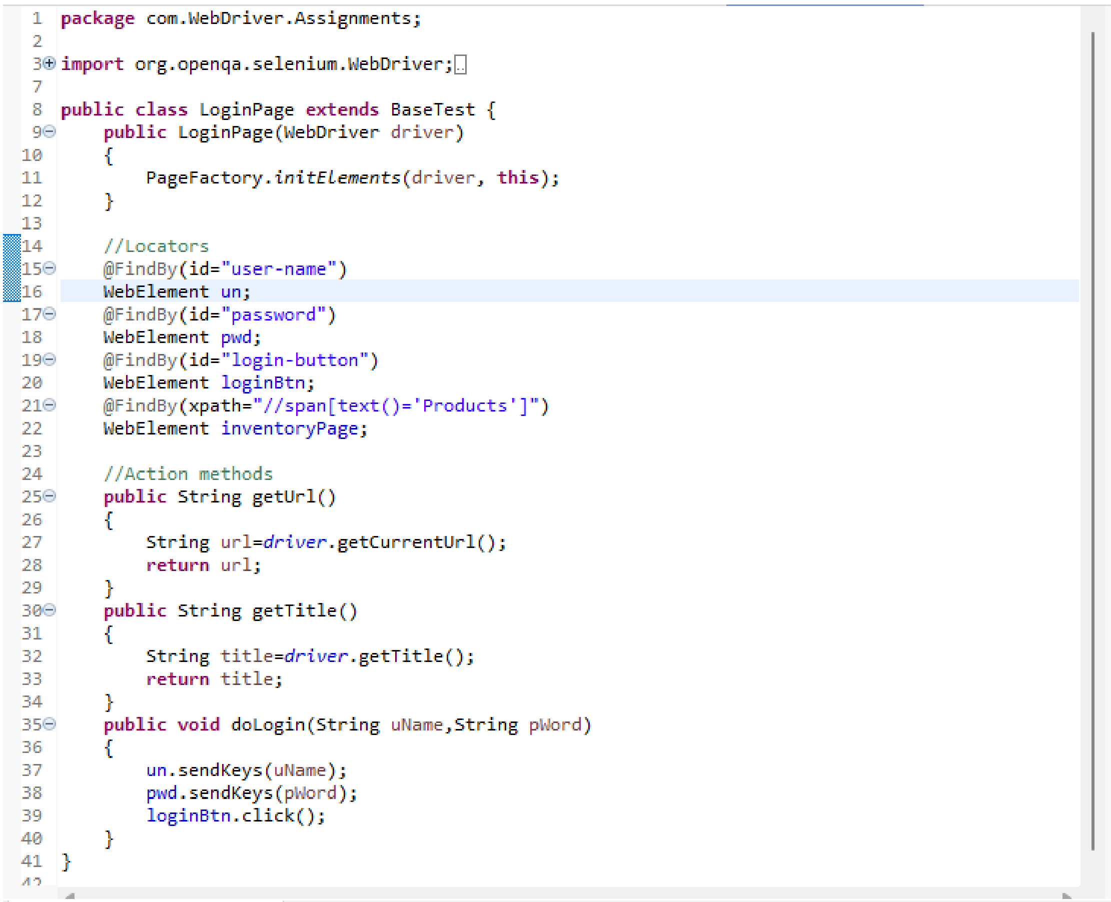
```
package com.WebDriver.Assignments;

import java.time.Duration;
import org.openqa.selenium.By;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.Assert;
/*
 * Scenario 1: Write a WebDriver script to navigate to a website and click on a specific link.
 * Step 1: Open Amazon application
 * Step 2: Validate Amazon Page
 * Step 3: Click on Best Sellers link
 * Step 4: validate the Best seller page
 */
public class ClickOnAmazonBestSellers {

    public static void main(String[] args) {
        WebDriver driver=new ChromeDriver();
        driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));
        driver.manage().window().maximize();

        driver.get("https://www.amazon.in/");
        Assert.assertTrue(driver.getTitle().contains("Online Shopping site in India"),"Title not matched, Launch Fail!");
        System.out.println("Title matched, Amazon page launch success!");
        driver.findElement(By.linkText("Best Sellers")).click();
        Assert.assertTrue(driver.getTitle().contains("Bestsellers"), "Title not matched,Best seller page launch failed!");
        System.out.println("Title Matched,Best Seller page Launch success!");
    }
}
```

```
<terminated> ClickOnAmazonBestSellers [Java Application] C:\Program Files\Java\jdk-21\bin\javaw.exe  (19-Sept-2024, 10:04:34 am – 10:04:46 am) [pid: 6792]
Title matched, Amazon page launch success!
Title Matched,Best Seller page Launch success!
```

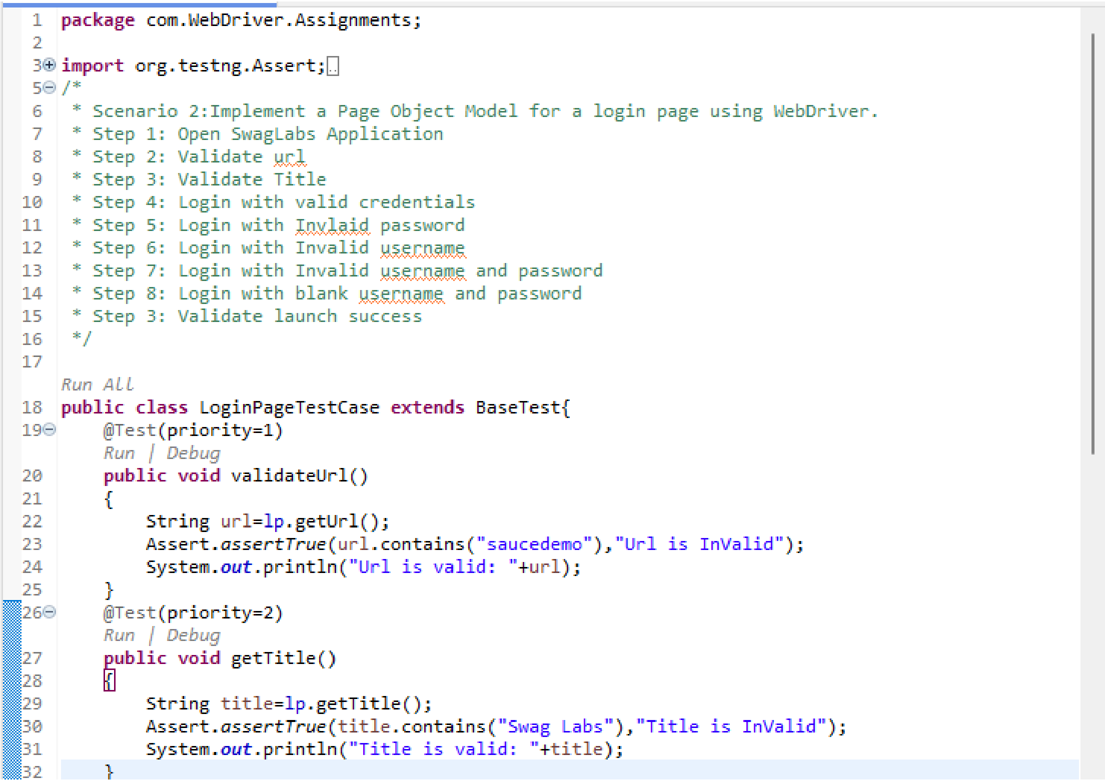
2. Implement a Page Object Model for a login page using Web Driver.



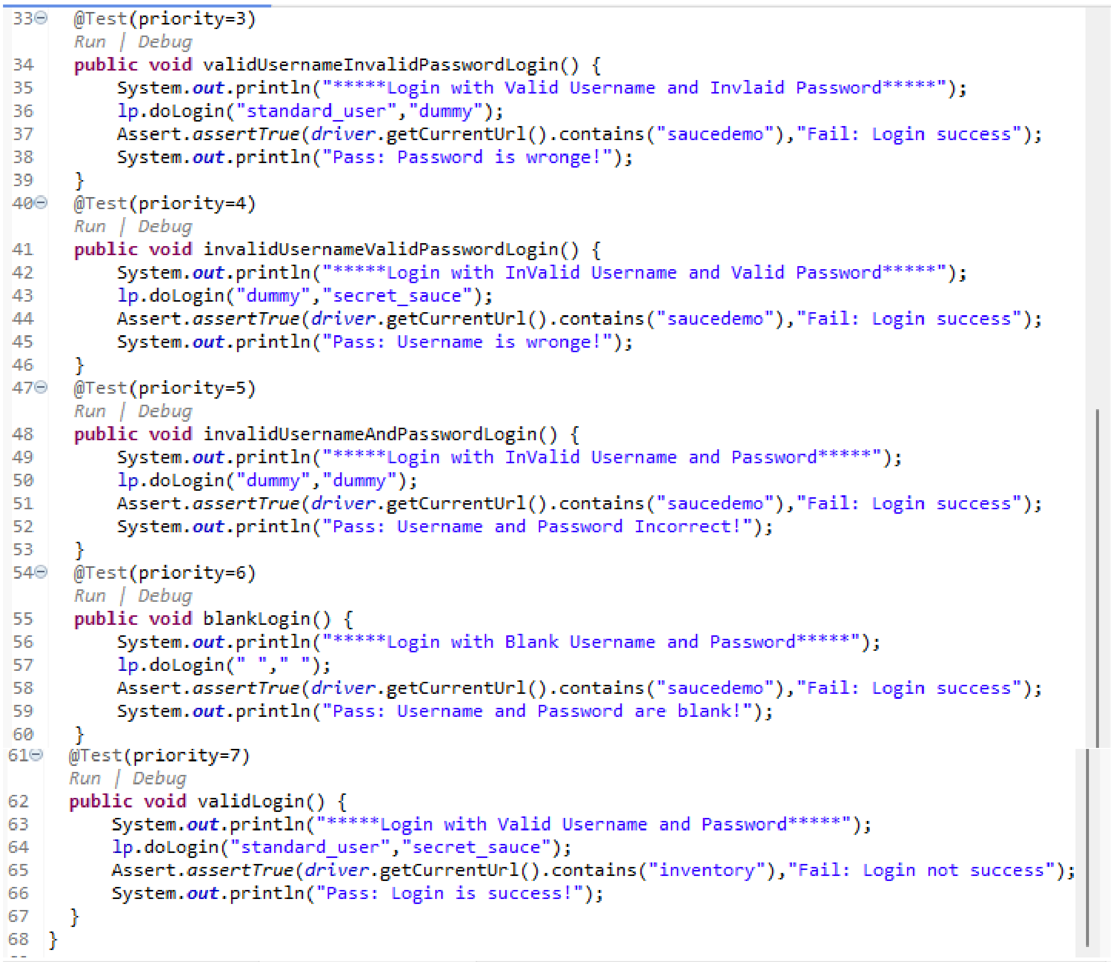
```
package com.WebDriver.Assignments;

import java.time.Duration;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.chrome.ChromeDriver;
import org.testng.annotations.AfterMethod;
import org.testng.annotations.BeforeMethod;

public class BaseTest {
    public static WebDriver driver;
    public LoginPage lp;

    @BeforeMethod
    public void setUp()
    {
        driver= new ChromeDriver();
        driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));
        driver.manage().window().maximize();
        driver.get("https://www.saucedemo.com/");
        lp=new LoginPage(driver);
    }

    //Close all browsers
    @AfterMethod
    public void tearDown()
    {
        driver.quit();
    }
}
```



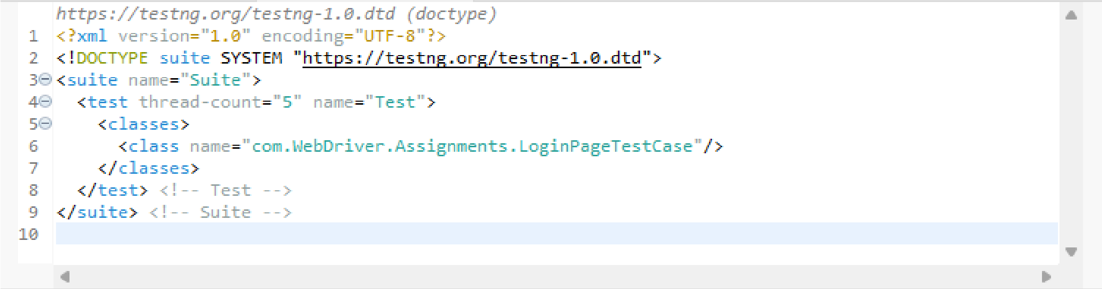
```java
package com.WebDriver.Assignments;

import org.openqa.selenium.WebDriver;

public class LoginPage extends BaseTest {
    public LoginPage(WebDriver driver)
    {
        PageFactory.initElements(driver, this);
    }

    //Locators
    @FindBy(id="user-name")
    WebElement un;
    @FindBy(id="password")
    WebElement pwd;
    @FindBy(id="login-button")
    WebElement loginBtn;
    @FindBy(xpath="//span[text()='Products']")
    WebElement inventoryPage;

    //Action methods
    public String getUrl()
    {
        String url=driver.getCurrentUrl();
        return url;
    }
    public String getTitle()
    {
        String title=driver.getTitle();
        return title;
    }
    public void doLogin(String uName,String pWord)
    {
        un.sendKeys(uName);
        pwd.sendKeys(pWord);
        loginBtn.click();
    }
}
```



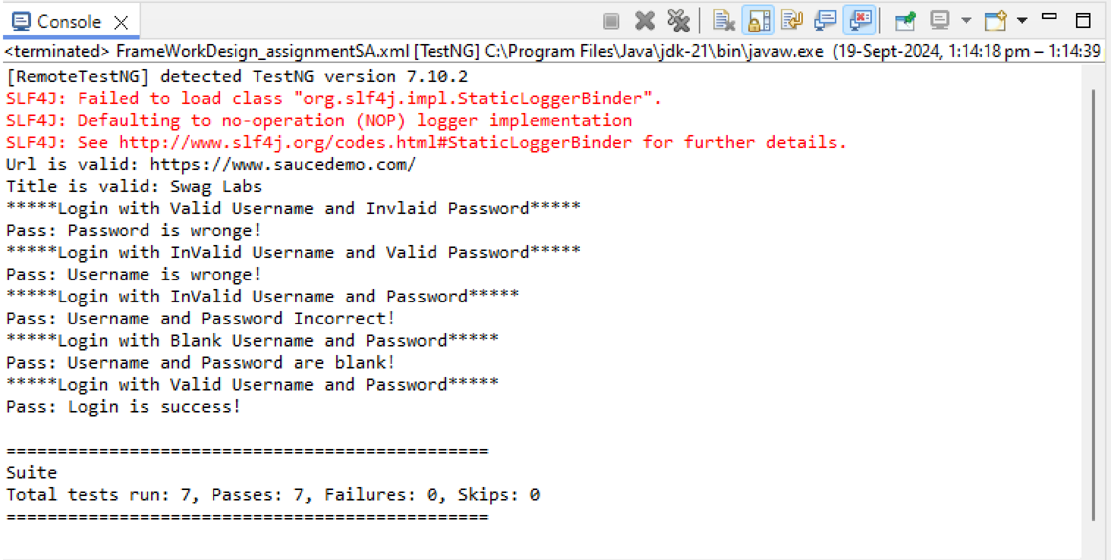
```java
package com.WebDriver.Assignments;

import org.testng.Assert;
/*
 * Scenario 2:Implement a Page Object Model for a login page using WebDriver.
 * Step 1: Open SwagLabs Application
 * Step 2: Validate url
 * Step 3: Validate Title
 * Step 4: Login with valid credentials
 * Step 5: Login with Invlaid password
 * Step 6: Login with Invalid username
 * Step 7: Login with Invalid username and password
 * Step 8: Login with blank username and password
 * Step 3: Validate launch success
 */

Run All
public class LoginPageTestCase extends BaseTest{
    @Test(priority=1)
    Run | Debug
    public void validateUrl()
    {
        String url=lp.getUrl();
        Assert.assertTrue(url.contains("saucedemo"),"Url is InValid");
        System.out.println("Url is valid: "+url);
    }
    @Test(priority=2)
    Run | Debug
    public void getTitle()
    {
        String title=lp.getTitle();
        Assert.assertTrue(title.contains("Swag Labs"),"Title is InValid");
        System.out.println("Title is valid: "+title);
    }
```



```java
	@Test(priority=3)
	Run | Debug
	public void validUsernameInvalidPasswordLogin() {
		System.out.println("*****Login with Valid Username and Invlaid Password*****");
		lp.doLogin("standard_user","dummy");
		Assert.assertTrue(driver.getCurrentUrl().contains("saucedemo"),"Fail: Login success");
		System.out.println("Pass: Password is wronge!");
	}
	@Test(priority=4)
	Run | Debug
	public void invalidUsernameValidPasswordLogin() {
		System.out.println("*****Login with InValid Username and Valid Password*****");
		lp.doLogin("dummy","secret_sauce");
		Assert.assertTrue(driver.getCurrentUrl().contains("saucedemo"),"Fail: Login success");
		System.out.println("Pass: Username is wronge!");
	}
	@Test(priority=5)
	Run | Debug
	public void invalidUsernameAndPasswordLogin() {
		System.out.println("*****Login with InValid Username and Password*****");
		lp.doLogin("dummy","dummy");
		Assert.assertTrue(driver.getCurrentUrl().contains("saucedemo"),"Fail: Login success");
		System.out.println("Pass: Username and Password Incorrect!");
	}
	@Test(priority=6)
	Run | Debug
	public void blankLogin() {
		System.out.println("*****Login with Blank Username and Password*****");
		lp.doLogin(" "," ");
		Assert.assertTrue(driver.getCurrentUrl().contains("saucedemo"),"Fail: Login success");
		System.out.println("Pass: Username and Password are blank!");
	}
	@Test(priority=7)
	Run | Debug
	public void validLogin() {
		System.out.println("*****Login with Valid Username and Password*****");
		lp.doLogin("standard_user","secret_sauce");
		Assert.assertTrue(driver.getCurrentUrl().contains("inventory"),"Fail: Login not success");
		System.out.println("Pass: Login is success!");
	}
}
```

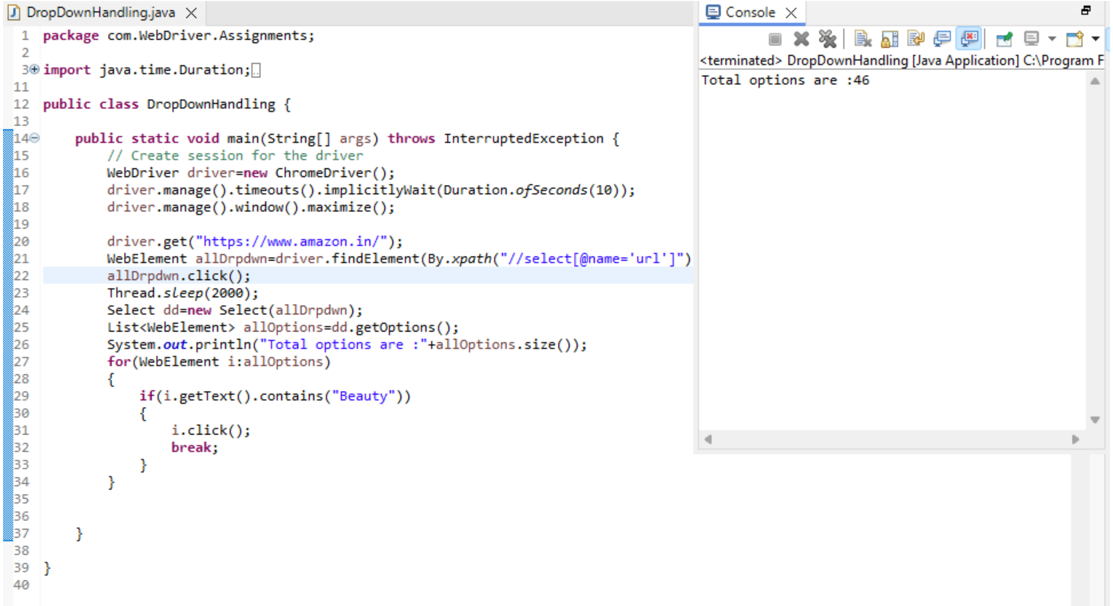


```xml
https://testng.org/testng-1.0.dtd (doctype)
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE suite SYSTEM "https://testng.org/testng-1.0.dtd">
<suite name="Suite">
  <test thread-count="5" name="Test">
    <classes>
      <class name="com.WebDriver.Assignments.LoginPageTestCase"/>
    </classes>
  </test> <!-- Test -->
</suite> <!-- Suite -->
```



```
<terminated> FrameWorkDesign_assignmentSA.xml [TestNG] C:\Program Files\Java\jdk-21\bin\javaw.exe (19-Sept-2024, 1:14:18 pm – 1:14:39
[RemoteTestNG] detected TestNG version 7.10.2
SLF4J: Failed to load class "org.slf4j.impl.StaticLoggerBinder".
SLF4J: Defaulting to no-operation (NOP) logger implementation
SLF4J: See http://www.slf4j.org/codes.html#StaticLoggerBinder for further details.
Url is valid: https://www.saucedemo.com/
Title is valid: Swag Labs
*****Login with Valid Username and Invlaid Password*****
Pass: Password is wronge!
*****Login with InValid Username and Valid Password*****
Pass: Username is wronge!
*****Login with InValid Username and Password*****
Pass: Username and Password Incorrect!
*****Login with Blank Username and Password*****
Pass: Username and Password are blank!
*****Login with Valid Username and Password*****
Pass: Login is success!

===============================================
Suite
Total tests run: 7, Passes: 7, Failures: 0, Skips: 0
===============================================
```

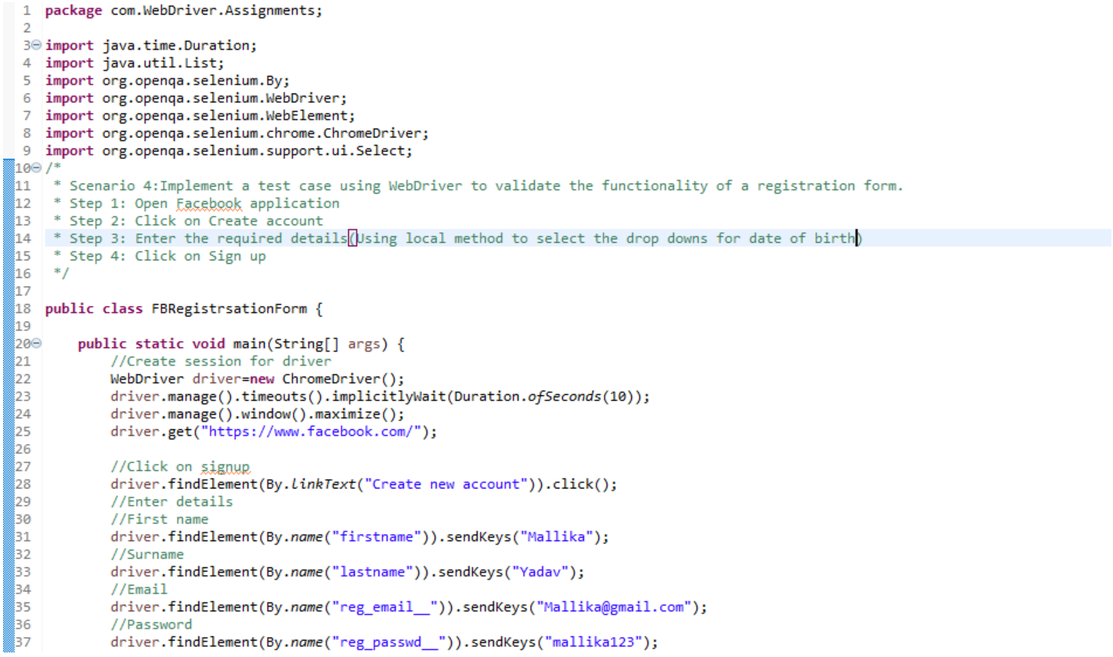
3. Write a WebDriver script to handle a dropdown and select an option based on specific criteria.



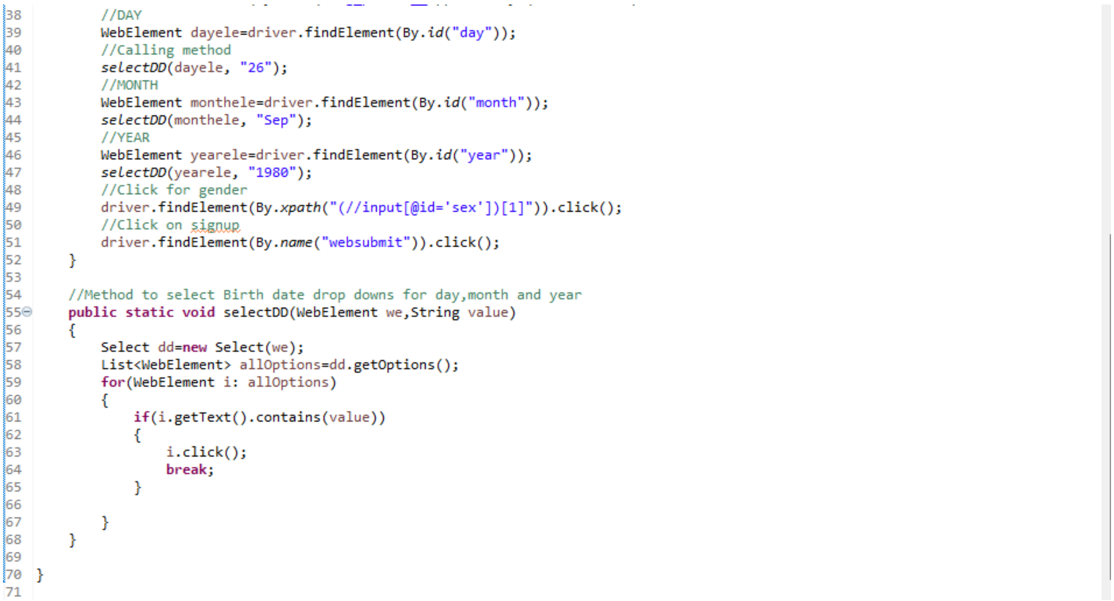
```java
package com.WebDriver.Assignments;

import java.time.Duration;

public class DropDownHandling {

    public static void main(String[] args) throws InterruptedException {
        // Create session for the driver
        WebDriver driver=new ChromeDriver();
        driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));
        driver.manage().window().maximize();

        driver.get("https://www.amazon.in/");
        WebElement allDrpdwn=driver.findElement(By.xpath("//select[@name='url']")
        allDrpdwn.click();
        Thread.sleep(2000);
        Select dd=new Select(allDrpdwn);
        List<WebElement> allOptions=dd.getOptions();
        System.out.println("Total options are :"+allOptions.size());
        for(WebElement i:allOptions)
        {
            if(i.getText().contains("Beauty"))
            {
                i.click();
                break;
            }
        }


    }

}

```

```
<terminated> DropDownHandling [Java Application] C:\Program F
Total options are :46
```

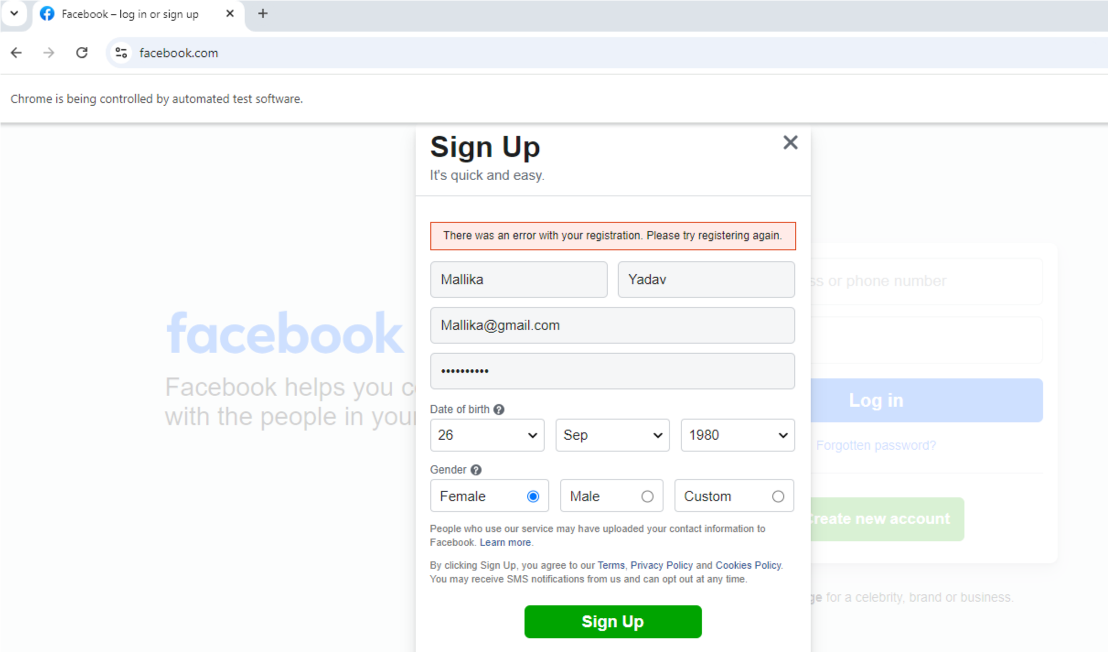
4. Implement a test case using Web Driver to validate the functionality of a registration form.



```java
package com.WebDriver.Assignments;

import java.time.Duration;
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;
import org.openqa.selenium.support.ui.Select;
/*
 * Scenario 4:Implement a test case using WebDriver to validate the functionality of a registration form.
 * Step 1: Open Facebook application
 * Step 2: Click on Create account
 * Step 3: Enter the required details(Using local method to select the drop downs for date of birth)
 * Step 4: Click on Sign up
 */

public class FBRegistrsationForm {

    public static void main(String[] args) {
        //Create session for driver
        WebDriver driver=new ChromeDriver();
        driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));
        driver.manage().window().maximize();
        driver.get("https://www.facebook.com/");

        //Click on signup
        driver.findElement(By.linkText("Create new account")).click();
        //Enter details
        //First name
        driver.findElement(By.name("firstname")).sendKeys("Mallika");
        //Surname
        driver.findElement(By.name("lastname")).sendKeys("Yadav");
        //Email
        driver.findElement(By.name("reg_email__")).sendKeys("Mallika@gmail.com");
        //Password
        driver.findElement(By.name("reg_passwd__")).sendKeys("mallika123");
```



```
        //DAY
        WebElement dayele=driver.findElement(By.id("day"));
        //Calling method
        selectDD(dayele, "26");
        //MONTH
        WebElement monthele=driver.findElement(By.id("month"));
        selectDD(monthele, "Sep");
        //YEAR
        WebElement yearele=driver.findElement(By.id("year"));
        selectDD(yearele, "1980");
        //Click for gender
        driver.findElement(By.xpath("(//input[@id='sex'])[1]")).click();
        //Click on signup
        driver.findElement(By.name("websubmit")).click();
    }

    //Method to select Birth date drop downs for day,month and year
    public static void selectDD(WebElement we,String value)
    {
        Select dd=new Select(we);
        List<WebElement> allOptions=dd.getOptions();
        for(WebElement i: allOptions)
        {
            if(i.getText().contains(value))
            {
                i.click();
                break;
            }

        }
    }

}
```



Chrome is being controlled by automated test software.

Sign Up

It's quick and easy.

There was an error with your registration. Please try registering again.

Mallika | Yadav

Mallika@gmail.com

••••••••••

Date of birth: 26 | Sep | 1980

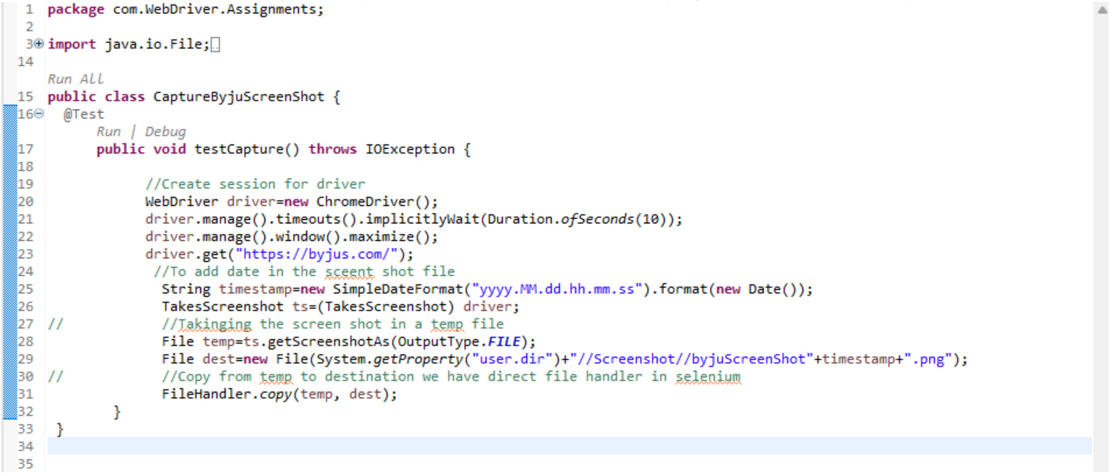
Gender: Female ● | Male ○ | Custom ○

People who use our service may have uploaded your contact information to Facebook. Learn more.

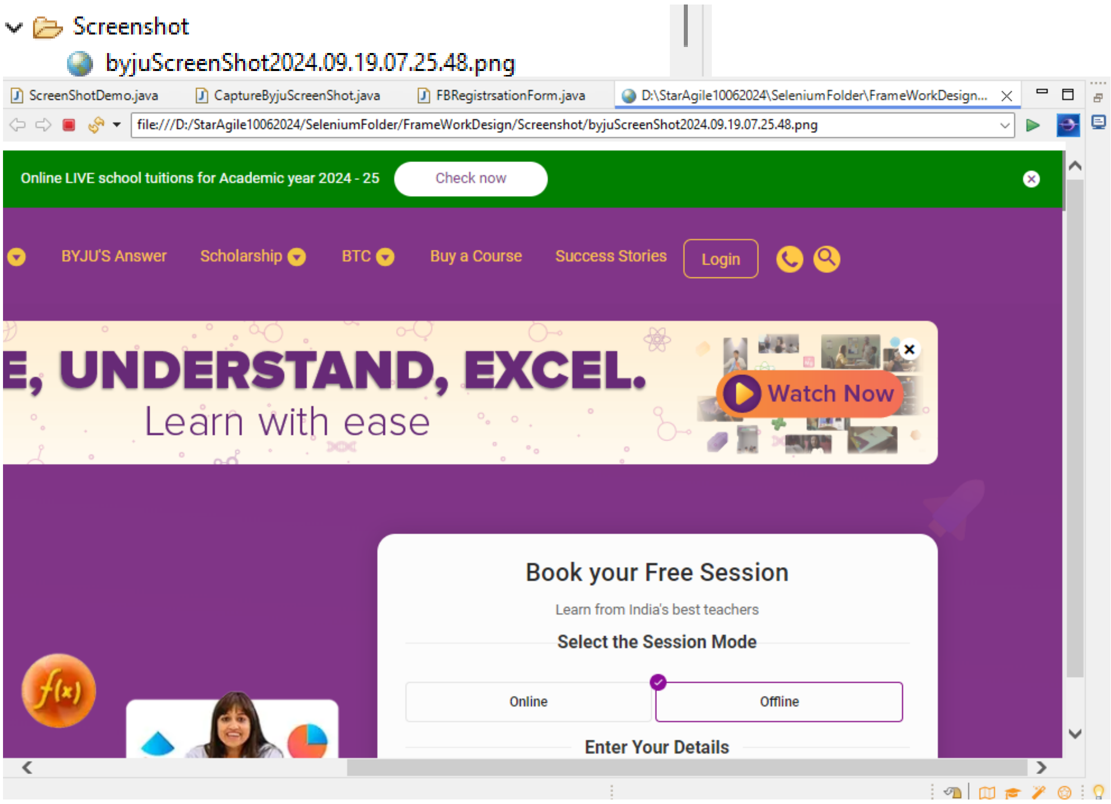
By clicking Sign Up, you agree to our Terms, Privacy Policy and Cookies Policy. You may receive SMS notifications from us and can opt out at any time.

Sign Up

5. Write a Web Driver script to capture a screenshot of a webpage and save it to a specific location



```
package com.WebDriver.Assignments;

import java.io.File;□

Run All
public class CaptureByjuScreenShot {
  @Test
      Run | Debug
      public void testCapture() throws IOException {

            //Create session for driver
            WebDriver driver=new ChromeDriver();
            driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));
            driver.manage().window().maximize();
            driver.get("https://byjus.com/");
             //To add date in the sceent shot file
              String timestamp=new SimpleDateFormat("yyyy.MM.dd.hh.mm.ss").format(new Date());
              TakesScreenshot ts=(TakesScreenshot) driver;
//            //Takinging the screen shot in a temp file
              File temp=ts.getScreenshotAs(OutputType.FILE);
              File dest=new File(System.getProperty("user.dir")+"//Screenshot//byjuScreenShot"+timestamp+".png");
//            //Copy from temp to destination we have direct file handler in selenium
              FileHandler.copy(temp, dest);
        }
 }
```



Screenshot

byjuScreenShot2024.09.19.07.25.48.png

ScreenShotDemo.java | CaptureByjuScreenShot.java | FBRegistrsationForm.java | D:\StarAgile10062024\SeleniumFolder\FrameWorkDesign...

file:///D:/StarAgile10062024/SeleniumFolder/FrameWorkDesign/Screenshot/byjuScreenShot2024.09.19.07.25.48.png

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