**Phase-End Project 5**

**Automate an E-Commerce Web Application**

**Description:**

Flipkart is an e-commerce platform, and they have launched a new feature to search for a product in a particular category. Once the product is searched, Flipkart displays it as a list of product items. To enhance the performance of the application, Flipkart has implemented lazy loading. It displays only a few products that can come on the screen.

To display or load more products, the user must scroll down.

As a Test Engineer, you are expected to test this feature end-to-end.

**Code Snippets**

**WebApp.java**

package automate\_e\_com\_web\_app;

import org.openqa.selenium.By;

import org.openqa.selenium.JavascriptExecutor;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

import org.openqa.selenium.firefox.FirefoxDriver;

import org.testng.annotations.AfterTest;

import org.testng.annotations.BeforeMethod;

import org.testng.annotations.Test;

public class WebApp {

WebDriver driver;

*@BeforeMethod*

public void auto\_setUp() throws InterruptedException {

System.*setProperty*("webdriver.chrome.driver", "C:\\Users\\vmb44\\Desktop\\chromedriver.exe");

driver = new ChromeDriver();

Thread.*sleep*(2000);

System.***out***.println("The Operations are performed using the Chrome Driver");

}

*@Test*

public void boost\_loadTime() throws InterruptedException {

System.*setProperty*("webdriver.chrome.driver", "C:\\Users\\vmb44\\Desktop\\chromedriver.exe");

JavascriptExecutor js = (JavascriptExecutor)driver;

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

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

long start\_time = System.*currentTimeMillis*();

js.executeAsyncScript("window.setTimeout(arguments[arguments.length -1], 3000);");

System.***out***.println("Passed Time: " +(System.*currentTimeMillis*() - start\_time) + " milliSeconds");

Thread.*sleep*(2000);

//

driver.findElement(By.*xpath*("//input[@class='\_2IX\_2- VJZDxU']")).sendKeys("vmb4401@gmail.com");

Thread.*sleep*(2000);

driver.findElement(By.*xpath*("//input[@class='\_2IX\_2- \_3mctLh VJZDxU']")).sendKeys("Vishu@0000");

Thread.*sleep*(2000);

driver.findElement(By.*xpath*("//button[@class='\_2KpZ6l \_2HKlqd \_3AWRsL']")).click();

Thread.*sleep*(4000);

System.***out***.println("Login Successful");

driver.quit();

driver.quit();

}

*@Test*

public void choose\_scroll() throws InterruptedException {

// driver = new ChromeDriver();

driver.navigate().to("https://www.flipkart.com/");

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

Thread.*sleep*(2000);

driver.findElement(By.*xpath*("//button[@class='\_2KpZ6l \_2doB4z']")).click();

Thread.*sleep*(2000);

driver.findElement(By.*xpath*("//input[@class='\_3704LK']")).sendKeys("iphone 13");

Thread.*sleep*(2000);

driver.findElement(By.*xpath*("//button[@class='L0Z3Pu']")).click();

Thread.*sleep*(4000);

System.***out***.println("Displaying iPhone 13 under mobile category");

Thread.*sleep*(2000);

JavascriptExecutor js = (JavascriptExecutor)driver;

js.executeScript("scrollBy(0, 2000)");

Thread.*sleep*(1500);

js.executeScript("scrollBy(0, 2000)");

Thread.*sleep*(2000);

js.executeScript("scrollBy(0, 2000)");

Thread.*sleep*(3000);

js.executeScript("scrollBy(0, 2000)");

Thread.*sleep*(3000);

System.***out***.println("Reached to the Maximum value of the screen height");

js.executeScript("scrollBy(0, -2000)");

Thread.*sleep*(2000);

js.executeScript("scrollBy(0, -2000)");

Thread.*sleep*(2000);

js.executeScript("scrollBy(0, -2000)");

Thread.*sleep*(2000);

System.***out***.println("The page is scrolled to top of the page");

Thread.*sleep*(2000);

driver.navigate().refresh();

System.***out***.println("Refreshed the page successfully");

System.***out***.println("Executed Successfully");

driver.quit();

driver.quit();

}

*@Test*

public void firefox\_setUp() throws InterruptedException {

System.*setProperty*("webdriver.gecko.driver", "C:\\Users\\vmb44\\Desktop\\geckodriver.exe");

driver = new FirefoxDriver();

// Thread.sleep(2000);

System.***out***.println("Firefox driver started");

driver.navigate().to("https://www.flipkart.com/");

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

Thread.*sleep*(2000);

driver.findElement(By.*xpath*("//button[@class='\_2KpZ6l \_2doB4z']")).click();

Thread.*sleep*(2000);

driver.findElement(By.*xpath*("//input[@class='\_3704LK']")).sendKeys("iphone 13");

Thread.*sleep*(2000);

driver.findElement(By.*xpath*("//button[@class='L0Z3Pu']")).click();

Thread.*sleep*(4000);

System.***out***.println("Displaying iPhone 13 under mobile category");

Thread.*sleep*(2000);

JavascriptExecutor js = (JavascriptExecutor)driver;

js.executeScript("scrollBy(0, 2000)");

Thread.*sleep*(1500);

js.executeScript("scrollBy(0, 2000)");

Thread.*sleep*(2000);

js.executeScript("scrollBy(0, 2000)");

Thread.*sleep*(3000);

js.executeScript("scrollBy(0, 2000)");

Thread.*sleep*(3000);

System.***out***.println("Reached to the Maximum value of the screen height");

js.executeScript("scrollBy(0, -2000)");

Thread.*sleep*(2000);

js.executeScript("scrollBy(0, -2000)");

Thread.*sleep*(2000);

js.executeScript("scrollBy(0, -2000)");

Thread.*sleep*(2000);

System.***out***.println("The page is scrolled to top of the page");

Thread.*sleep*(2000);

driver.navigate().refresh();

System.***out***.println("Refreshed the page successfully");

System.***out***.println("Executed Successfully");

driver.quit();

}

}

**testng.xml**

<?**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=*"automate\_e\_com\_web\_app.WebApp"*/>

</**classes**>

</**test**> <!-- Test -->

</**suite**> <!-- Suite -->

**pom.xml**

<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 https://maven.apache.org/xsd/maven-4.0.0.xsd">

<modelVersion>4.0.0</modelVersion>

<groupId>automate\_e\_com\_web\_app</groupId>

<artifactId>automate\_e\_com\_web\_app</artifactId>

<version>0.0.1-SNAPSHOT</version>

<dependencies>

<!-- https://mvnrepository.com/artifact/org.seleniumhq.selenium/selenium-java -->

<dependency>

<groupId>org.seleniumhq.selenium</groupId>

<artifactId>selenium-java</artifactId>

<version>4.5.0</version>

</dependency>

</dependencies>

<build>

<sourceDirectory>src</sourceDirectory>

<plugins>

<plugin>

<artifactId>maven-compiler-plugin</artifactId>

<version>3.8.1</version>

<configuration>

<source>1.8</source>

<target>1.8</target>

</configuration>

</plugin>

</plugins>

</build>

</project>