

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>
</suite>

```

```
    </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
    http://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>
```