Automate an E-Commerce Web Application-Source code:

Webapp.java:

package com.samples;

import java.time.Duration;

import java.util.concurrent.TimeUnit;

import org.openqa.selenium.By;

import org.openqa.selenium.JavascriptExecutor;

import org.openqa.selenium.Keys;

import org.openqa.selenium.NoSuchElementException;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.WebElement;

import org.openqa.selenium.chrome.ChromeDriver;

import org.openqa.selenium.edge.EdgeDriver;

import org.openqa.selenium.firefox.FirefoxDriver;

import org.openqa.selenium.support.ui.ExpectedConditions;

import org.openqa.selenium.support.ui.FluentWait;

import org.openqa.selenium.support.ui.Wait;

import org.openqa.selenium.support.ui.WebDriverWait;

import org.testng.annotations.AfterClass;

import org.testng.annotations.AfterMethod;

import org.testng.annotations.BeforeClass;

import org.testng.annotations.BeforeMethod;

import org.testng.annotations.Test;

import com.google.common.base.Function;

@Test

public class Webapp {

WebDriver wd;

@BeforeClass

public void startBrowser() throws InterruptedException{

System.setProperty("webdriver.chrome.driver","C:\\wastefolders\\chromedriver.exe")

;

wd = new ChromeDriver();

//System.setProperty("webdriver.edge.driver",

//"D:\\phase 5\\edgedriver\_win64/msedgedriver.exe");

//wd = new EdgeDriver();

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

wd.manage().window().maximize();

}

@AfterClass

public void closeBrowser() throws InterruptedException {

wd.close();

}

@Test(priority = 1)

public void loadtime() throws InterruptedException {

long s = System.currentTimeMillis();

WebDriverWait wait = new WebDriverWait(wd, 40);

wait.until(ExpectedConditions.elementToBeClickable(By.className("L0Z3Pu")));

long e = System.currentTimeMillis();

long r = e - s;

System.out.println("load time in milliseconds: " + r);

}

@Test(priority = 2)

public void search() throws InterruptedException {

// Search

wd.findElement(By.cssSelector(".\_2IX\_2-

.VJZDxU")).sendKeys(Keys.ESCAPE);

Thread.sleep(2000);

wd.findElement(By.className("\_3704LK")).sendKeys("iPhone 13");

Thread.sleep(2000);

wd.findElement(By.className("\_3704LK")).sendKeys(Keys.ENTER);

Thread.sleep(2000);

// Check if image loaded

try {

boolean image3 = wd.findElement(By.xpath("//img[contains(@src,

'https://rukminim1.flixcart.com/image/312/312/ktketu80/mobile/a/m/7/iphone-13-mlpj3hn-aapple-original-imag6vpyk3w4zarg.jpeg?q=70')]")).isDisplayed();

//WebElement image3 =

wd.findElement(By.xpath("/html/body/div[1]/div/div[3]/div[1]/div[2]/div[4]/div/div/div/a/di

v[1]/div[1]/div/div/img"));

System.out.println("Image 3 is loaded.");

} catch (org.openqa.selenium.NoSuchElementException e) {

System.out.println("Image 3 is not loaded.");

}

}

@Test(priority = 3)

public void scroll() throws InterruptedException {

String JS\_ELEMENT\_IS\_SCROLLABLE = "return

arguments[0].scrollHeight > arguments[0].offsetHeight;";

JavascriptExecutor jse = (JavascriptExecutor) wd;

WebElement container = wd.findElement(By.xpath("//div[@id='container']"));

Boolean isScrollable = (Boolean)

jse.executeScript(JS\_ELEMENT\_IS\_SCROLLABLE, container);

if (isScrollable == true) {

System.out.println("Scroll bar is present");

} else {

System.out.println("Scroll bar is absent.");

}

// Checking frequency of refresh

Wait<WebDriver> wait = new

FluentWait<WebDriver>(wd).withTimeout(Duration.ofSeconds(10))

.pollingEvery(Duration.ofMillis(500)).ignoring(NoSuchElementException.class);

WebElement foo = wait.until(new Function<WebDriver, WebElement>() {

public WebElement apply(WebDriver wd) {

return wd.findElement(By.cssSelector(".\_396cs4.\_3exPp9"));

}

});

System.out.println("Checking the frequency of refresh every 5s for 30s.");

// Verify image is downloaded just before scrolling

WebElement element = wd.findElement(By.xpath("//img[contains(@src,

'https://rukminim1.flixcart.com/image/312/312/ktketu80/mobile/a/m/7/iphone-13-mlpj3hn-aapple-original-imag6vpyk3w4zarg.jpeg?q=70')]"));

boolean dispBefore = element.isDisplayed();

if (dispBefore == true) {

System.out.println("Before Scrolling : Image downloaded.");

}

else {

System.out.println("Before Scrolling : Image not downloaded.");

}

jse.executeScript("arguments[0].scrollIntoView(true);",element);

boolean dispAfter = element.isDisplayed();

if (dispAfter == true) {

System.out.println("After Scrolling : Image downloaded.");

}

else {

System.out.println("After Scrolling : Image not downloaded.");

}

Thread.sleep(2000);

// scroll to the bottom

Thread.sleep(2000);

System.out.println("Scrolling to the end of the page.");

jse.executeScript("window.scrollBy(0,document.body.scrollHeight)");

Thread.sleep(2000);

}

}

2)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>com.org</groupId>

<artifactId>WebApp</artifactId>

<version>0.0.1-SNAPSHOT</version>

<build>

<sourceDirectory>src</sourceDirectory>

<plugins>

<plugin>

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

<version>3.8.1</version>

<configuration>

<release>18</release>

</configuration>

</plugin>

<plugin>

<groupId>org.apache.maven.plugins</groupId>

<artifactId>maven-surefire-plugin</artifactId>

<version>3.0.0-M5</version>

<configuration>

<suiteXmlFiles>

<suiteXmlFile>testng.xml</suiteXmlFile>

</suiteXmlFiles>

</configuration>

</plugin>

</plugins>

</build>

<dependencies>

<dependency>

<groupId>org.testng</groupId>

<artifactId>testng</artifactId>

<version>7.5</version>

</dependency>

<dependency>

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

<artifactId>selenium-java</artifactId>

<version>4.1.2</version>

</dependency>

</dependencies>

</project>

3)Testing.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="com.samples.Webapp"/>

</classes>

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

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