

Source Code Automate an E-Commerce Web Application:

//App.java

```
package com.demo;

/**
 * Hello world!
 *
 */
public class App
{
    public static void main( String[] args )
    {
        System.out.println( "Hello World!" );
    }
}
```

//AppTest.java

```
package com.demo;

import org.testng.annotations.Test;
import org.testng.AssertJUnit;
import org.testng.annotations.Test;
import org.testng.AssertJUnit;
import org.testng.annotations.Test;
import org.testng.AssertJUnit;

/**
 * Unit test for simple App.
```

```

*/
public class AppTest
{
    /**
     * Create the test case
     *
     * @param testName name of the test case
     */
    public AppTest( String testName )
    {
    }

    /**
     * Rigourous Test :-)
     */
    @Test
    public void testApp()
    {
        AssertJUnit.assertTrue( true );
    }
}

```

//FlipkartTestChrome.java

```

package com.demo;

import org.testng.annotations.AfterClass;

```

```
import org.testng.annotations.Test;
import org.testng.annotations.BeforeClass;
import org.testng.annotations.AfterClass;
import org.testng.annotations.Test;
import org.testng.annotations.BeforeClass;
import org.testng.annotations.AfterClass;
import org.testng.annotations.Test;
import org.testng.annotations.BeforeClass;
import org.testng.annotations.Test;
import java.io.File;
import java.io.IOException;
import java.util.concurrent.TimeUnit;
import java.util.function.Function;

import org.apache.commons.io.FileUtils;
import org.openqa.selenium.By;
import org.openqa.selenium.Dimension;
import org.openqa.selenium.JavascriptExecutor;
import org.openqa.selenium.NoSuchElementException;
import org.openqa.selenium.OutputType;
import org.openqa.selenium.TakesScreenshot;
import org.openqa.selenium.WebDriver;
import org.openqa.selenium.WebElement;
import org.openqa.selenium.chrome.ChromeDriver;
```

```
import org.openqa.selenium.support.ui.FluentWait;
import org.openqa.selenium.support.ui.Wait;
import org.testng.annotations.AfterClass;
import org.testng.annotations.BeforeClass;
import org.openqa.selenium.TakesScreenshot;
public class FlipkartTestChrome {
    WebDriver driver;

    @BeforeClass
    public void beforeClass() {
        System.setProperty("webdriver.chrome.driver",

            "C:\\\\Users\\\\lavan\\\\Downloads\\\\chromedriver_win32\\\\chrome
            driver.exe");

        driver = new ChromeDriver();
        driver.get("https://www.flipkart.com/");
        driver.manage().window().maximize();
    }

    @AfterClass
    public void afterClass() {
        driver = null;
    }

    @Test(priority = 1)
```

```

        public void closeLogin() throws InterruptedException {
            try {

                System.out.println("\nChrome Browser Result:\n");

                System.out.println(driver.getTitle());

                driver.findElement(By.cssSelector("body > div._2Sn47c > div > div >
                button")).click();

                Thread.sleep(1000);

            } catch (NoSuchElementException e) {

                e.printStackTrace();

            }

            screenshot(driver,"closelogin");

        }

```

```

        @Test(priority = 2)

        public void scroll() throws InterruptedException {

            Thread.sleep(2000);

            JavascriptExecutor js = (JavascriptExecutor) driver;

            js.executeScript("window.scrollTo(0,document.body.scrollHeight)");

            System.out.println("\nNavigated to bottom of the page");

            Thread.sleep(2000);

            js.executeScript("window.scrollTo(0,-document.body.scrollHeight)",
            "");

            System.out.println("\nScroll Feature available");

            Thread.sleep(2000);

```

```
        screenshot(driver,"scroll");
    }
```

```
@Test(priority = 3)
```

```
public void searchProduct() throws InterruptedException {
    Thread.sleep(1000);
    driver.findElement(By.name("q")).sendKeys("iPhone 13");
    Thread.sleep(1000);
```

```
By search = By.cssSelector("#container > div > div._1kfTjk >
div._1rH5Jn > div._2Xfa2_ > div._1cmsER > form > div > button >
svg");
```

```
driver.findElement(search).click();
```

```
Thread.sleep(3000);
```

```
By load = By.cssSelector("#container > div >
div._36fx1h._6t1WkM._3HqJxg > div._1YokD2._2GoDe3 > div:nth-
child(2) > div:nth-child(9) > div > div");
```

```
    long start = System.currentTimeMillis();
```

```
    driver.findElement(load).click();
```

```
    long finish = System.currentTimeMillis();
```

```
    long totalTime = finish - start;
```

```
System.out.println("\nTime to load page in millisecs - " + totalTime);
```

```
    screenshot(driver,"searchproduct");
```

```
}
```

```
@Test(priority = 4)
```

```

        public void loadImage() throws InterruptedException {
String url = "https://www.flipkart.com/apple-iphone-13-blue-256-
gb/p/itmd68a015aa1e39?pid=MOBG6VF566ZTUVFR&lid=LSTMORG6
VF566ZTUVFR2RQLVU&marketplace=FLIPKART&q=iPhone+13&store
=tyy%2F4io&srno=s_1_8&otracker=search&otracker1=search&fm=or
ganic&iid=1c0c7402-fe4f-4f45-9aa8-
cc59dffe8503.MOBG6VF566ZTUVFR.SEARCH&ppt=hp&ppn=homepa
ge&ssid=i4t60bsv4g0000001665375424769&qH=c3d519be0191fbf8"
;

        driver.get(url);

        Thread.sleep(3000);

        //driver.navigate().refresh();

Wait<WebDriver>wait=newFluentWait<WebDriver>(driver).withTime
out(10, TimeUnit.SECONDS).pollingEvery(2,
TimeUnit.SECONDS).ignoring(NoSuchElementException.class);

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

@Test

public WebElement apply(WebDriver driver) {

WebElement img = driver.findElement(By.xpath(

        "//*[@id=\"container\"]/div/div[3]/div[1]/div[2]/div[9]/div[4]/d
iv[3]/div/div/div/div[1]/img"));

        if (img.isDisplayed()) {

            System.out.println("\nImage Loaded");

            return img;

                }else {

                    System.out.println("\nFluent Wait Fail!, Element Not Loaded Yet");

```

```

        return null;
    }
}

});
screenshot(driver,"pageLoad");
}

```

```

@Test(priority = 5)
public void scrollFrequency() throws InterruptedException {
    Thread.sleep(2000);
    long start = System.currentTimeMillis();

    WebElement element=driver.findElement(By.cssSelector("#container > div > div._2c7YLP.UtUXW0._6t1WkM._3HqJxg > div._1YokD2._2GoDe3 > div._1YokD2._3Mn1Gg.col-8-12 > div._1YokD2._3Mn1Gg > div:nth-child(7) > div > div:nth-child(3) > div > div > div:nth-child(1)"));

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

    long stop = System.currentTimeMillis();
    long totalTime = stop - start;
    System.out.println("\nScroll Frequency in millisecs - " + totalTime);
    screenshot(driver,"scrollfrequency");

}

```



```

@Test(priority = 6)

public void downloadImages() throws InterruptedException {

WebElementimg=driver.findElement(By.xpath("//*[@id=\"container\"]/div/div[3]/div[1]/div[2]/div[9]/div[4]/div[3]/div/div/div/div[1]/img"));

Booleanp=(Boolean)((JavascriptExecutor)driver).executeScript("return arguments[0].complete "+ "&& typeof arguments[0].naturalWidth != \"undefined\" " + "&& arguments[0].naturalWidth > 0", img);

if (p) {

        System.out.println("\nImage present");

    } else {

        System.out.println("\nImage not present");

    }

    screenshot(driver,"downloadImages");

}

```

```

@Test(priority = 7)

public void screenResolution() throws InterruptedException {

    Thread.sleep(1000);

    Dimension dimension = new Dimension(720, 1080);

    driver.manage().window().setSize(dimension);

    Thread.sleep(3000);

    Dimension dimension1 = new Dimension(1280, 800);

```

```
driver.manage().window().setSize(dimension1);  
Thread.sleep(3000);
```

```
Dimension dimension2 = new Dimension(2256, 1504);  
driver.manage().window().setSize(dimension2);
```

```
JavascriptExecutor js = (JavascriptExecutor) driver;  
int contentHeight = ((Number) js.executeScript("return  
window.innerHeight")).intValue();  
int contentWidth = ((Number) js.executeScript("return  
window.innerWidth")).intValue();  
System.out.println("\nHeight: " + contentHeight + " Width: " +  
contentWidth + "\n");  
screenshot(driver,"screenshotResolution");  
  
}
```

```
public static void screenshot(WebDriver driver,String  
screenshotName){  
    TakesScreenshot ts = (TakesScreenshot)driver;  
    File scr = ts.getScreenshotAs(OutputType.FILE);  
    try {  
FileUtils.copyFile(scr, new File(screenshotName+".png"));  
System.out.println("Screenshot taken");  
    } catch (IOException e) {  
        e.printStackTrace();  
    }  
}
```

```
    }  
}  
}
```

//FlipkartTestEdge.java

```
package com.demo;  
  
import org.testng.annotations.AfterClass;  
import org.testng.annotations.Test;  
import org.testng.annotations.BeforeClass;  
import org.testng.annotations.AfterClass;  
import org.testng.annotations.Test;  
import org.testng.annotations.BeforeClass;  
import org.testng.annotations.AfterClass;  
import org.testng.annotations.Test;  
import org.testng.annotations.BeforeClass;  
import java.io.File;  
import java.io.IOException;  
import java.util.concurrent.TimeUnit;  
import java.util.function.Function;  
import org.apache.commons.io.FileUtils;  
import org.openqa.selenium.By;  
import org.openqa.selenium.Dimension;  
import org.openqa.selenium.JavascriptExecutor;  
import org.openqa.selenium.NoSuchElementException;  
import org.openqa.selenium.OutputType;
```

```
import org.openqa.selenium.TakesScreenshot;
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.support.ui.FluentWait;
import org.openqa.selenium.support.ui.Wait;
import org.testng.annotations.AfterClass;
import org.testng.annotations.BeforeClass;
import org.testng.annotations.Test;
public class FlipkartTestEdge {
    WebDriver driver;

    @BeforeClass
    public void beforeClass() {
        System.setProperty("webdriver.Chrome.driver", "C:\\\\Users\\\\lavan\\D
        ownloads\\chromedriver_win32\\chromedriver.exe");

        driver = new ChromeDriver();
        driver.get("https://www.flipkart.com/");
        driver.manage().window().maximize();
    }

    @AfterClass
    public void afterClass() {
        driver = null;
    }
}
```

```

@Test(priority = 1)
    public void closeLogin() throws InterruptedException {
try {
        System.out.println("\nChrome Browser Result:\n");
        System.out.println(driver.getTitle());
driver.findElement(By.cssSelector("body > div._2Sn47c > div > div >
button")).click();
        Thread.sleep(1000);
    } catch (NoSuchElementException e) {
        e.printStackTrace();
    }
    screenshot(driver,"closeloginedge");
}

```

```

@Test(priority = 2)
    public void scroll() throws InterruptedException {
        Thread.sleep(2000);
        JavascriptExecutor js = (JavascriptExecutor) driver;
js.executeScript("window.scrollTo(0,document.body.scrollHeight)");
        System.out.println("\nNavigated to bottom of the page");
        Thread.sleep(2000);
js.executeScript("window.scrollTo(0,-document.body.scrollHeight)",
        "");
        System.out.println("\nScroll Feature available");
        Thread.sleep(2000);
    }

```

```
        screenshot(driver,"scrollchrome");
    }
```

```
@Test(priority = 3)
```

```
public void searchProduct() throws InterruptedException {
    Thread.sleep(1000);
    driver.findElement(By.name("q")).sendKeys("iPhone 13");
    Thread.sleep(1000);
```

```
By search = By.cssSelector("#container > div > div._1kfTjk >
div._1rH5Jn > div._2Xfa2_ > div._1cmsER > form > div > button >
svg");
```

```
driver.findElement(search).click();
```

```
Thread.sleep(3000);
```

```
Byload=By.cssSelector("#container>div>div._36fx1h._6t1WkM._3HqJ
xg > div._1YokD2._2GoDe3 > div:nth-child(2) > div:nth-child(9) > div >
div");
```

```
        long start = System.currentTimeMillis();
```

```
        driver.findElement(load).click();
```

```
        long finish = System.currentTimeMillis();
```

```
        long totalTime = finish - start;
```

```
System.out.println("\nTime to load page in millisecs - " + totalTime);
```

```
        screenshot(driver,"searchProductchrome");
```

```
    }
```

```
@Test(priority = 4)
```

```

public void loadImage() throws InterruptedException {
String url = "https://www.flipkart.com/apple-iphone-13-blue-256-
gb/p/itmd68a015aa1e39?pid=MOBG6VF566ZTUVFR&lid=LSTMORG6
VF566ZTUVFR2RQLVU&marketplace=FLIPKART&q=iPhone+13&store
=tyy%2F4io&srno=s_1_8&otracker=search&otracker1=search&fm=or
ganic&iid=1c0c7402-fe4f-4f45-9aa8-
cc59dffe8503.MORG6VF566ZTUVFR.SEARCH&ppt=hp&ppn=homepa
ge&ssid=i4t60bsv4g0000001665375424769&qH=c3d519be0191fbf8"
;
driver.get(url);

        Thread.sleep(3000);

        //driver.navigate().refresh();

Wait<WebDriver>wait=newFluentWait<WebDriver>(driver).withTime
out(10, TimeUnit.SECONDS).pollingEvery(2,
TimeUnit.SECONDS).ignoring(NoSuchElementException.class);
wait.until(new Function<WebDriver, WebElement>() {
@Test
public WebElement apply(WebDriver driver) {
WebElementimg=driver.findElement(By.xpath("//*[@id=\"container\
\"]/div/div[3]/div[1]/div[2]/div[9]/div[4]/div[3]/div/div/div/div[1]/img
"));
if (img.isDisplayed()) {
        System.out.println("\nImage Loaded");
        return img;

        } else {

System.out.println("\nFluent Wait Fail!, Element Not Loaded Yet");

        return null;

```

```

        }
    }

});

screenshot(driver,"Loadimageedge");

}

@Test(priority = 5)

    public void scrollFrequency() throws InterruptedException {

        Thread.sleep(2000);

        long start = System.currentTimeMillis();

WebElement element = driver.findElement(By.cssSelector(
"#container > div > div._2c7YLP.UtUXW0._6t1WkM._3HqJxg >
div._1YokD2._2GoDe3 > div._1YokD2._3Mn1Gg.col-8-12 >
div._1YokD2._3Mn1Gg > div:nth-child(7) > div > div:nth-child(3) > div
> div > div:nth-child(1)"));

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

        long stop = System.currentTimeMillis();

        long totalTime = stop - start;

System.out.println("\nScroll Frequency in millisecs - " + totalTime);

        screenshot(driver,"scrollFrequencyedge");

    }

@Test(priority = 6)

    public void downloadImages() throws InterruptedException {

```



```
WebElementimg=driver.findElement(By.xpath("//*[@id=\"container\"]/div/div[3]/div[1]/div[2]/div[9]/div[4]/div[3]/div/div/div/div[1]/img"));
```

```
Booleanp=(Boolean)((JavascriptExecutor)driver).executeScript("return arguments[0].complete "+ "&& typeof arguments[0].naturalWidth != \"undefined\" "+ "&& arguments[0].naturalWidth > 0", img);
```

```
    if (p) {  
        System.out.println("\nImage present");  
    } else {  
        System.out.println("\nImage not present");  
    }  
    screenshot(driver,"downloadImagesedge");
```

```
}
```

```
@Test(priority = 7)
```

```
    public void screenResolution() throws InterruptedException {  
        Thread.sleep(1000);  
        Dimension dimension = new Dimension(720, 1080);  
        driver.manage().window().setSize(dimension);
```

```
Thread.sleep(3000);
```

```
Dimension dimension1 = new Dimension(1280, 800);
```

```
driver.manage().window().setSize(dimension1);
```

```
Thread.sleep(3000);
```

```
Dimension dimension2 = new Dimension(2256, 1504);
```

```
driver.manage().window().setSize(dimension2);
```

```

JavascriptExecutor js = (JavascriptExecutor) driver;

int contentHeight = ((Number) js.executeScript("return
window.innerHeight")).intValue();

int contentWidth = ((Number) js.executeScript("return
window.innerWidth")).intValue();

System.out.println("\nHeight: " + contentHeight + " Width: " +
contentWidth + "\n");

        screenshot(driver,"screenshotResolutionedge");

    }

public static void screenshot(WebDriver driver,String
screenshotName){

        TakesScreenshot ts = (TakesScreenshot)driver;

        File scr = ts.getScreenshotAs(OutputType.FILE);

        try {

FileUtils.copyFile(scr, new File(screenshotName+".png"));

                System.out.println("Screenshot taken");

        } catch (IOException e) {

                e.printStackTrace();

        }

    }

}

```

//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="com.demo.FlipkartTestChrome"/>
      <class name="com.demo.FlipkartTestEdge"/>
      <class name="com.demo.AppTest"/>
    </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
    http://maven.apache.org/xsd/maven-4.0.0.xsd">
  <modelVersion>4.0.0</modelVersion>
  <groupId>com.demo</groupId>
  <artifactId>AutomateEcommerce</artifactId>
  <version>0.0.1-SNAPSHOT</version>
  <packaging>jar</packaging>
  <name>AutomateEcommerce</name>
  <url>http://maven.apache.org</url>
  <properties>
    <project.build.sourceEncoding>UTF8</project.build.sourceEncoding>
```

</properties>

<dependencies>

<dependency>

<groupId>junit</groupId>

<artifactId>junit</artifactId>

<version>3.8.1</version>

<scope>test</scope>

</dependency>

<dependency>

<groupId>org.testng</groupId>

<artifactId>testng</artifactId>

<version>7.5</version>

<scope>test</scope>

</dependency>

<dependency>

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

<artifactId>selenium-java</artifactId>

<version>3.5.1</version>

</dependency>

</dependencies>

</project>