```
public class Brokenlink {

public static void main(String[] args) throws IOException {

System.setProperty("webdriver.chrome.driver",
                                "C:\\Users\\KESAVAN\\eclipse-workspace\\New
folder\\Selenium\\SeleniumDay12\\Driver\\chromedriver.exe");

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

List<WebElement>links= driver.findElements(By.tagName("a"));
int size = links.size();
int count=0;
for (int i = 0; i < links.size(); i++) {
WebElement element = links.get(i);
String attribute = element.getAttribute("href");

if (attribute !=null) {
URL url = new URL(attribute);
URLConnection openConnection = url.openConnection();
        HttpURLConnectionhttp=(HttpURLConnection)openConnection;
int responseCode = http.getResponseCode();
if (responseCode!=200) {
count++;

System.out.println(attribute);}}
}
System.out.println(count);


public class BrokenImage {

public static void main(String[] args) throws IOException {

System.setProperty("webdriver.chrome.driver",
                                "C:\\Users\\KESAVAN\\eclipse-workspace\\New
folder\\Selenium\\SeleniumDay12\\Driver\\chromedriver.exe");

WebDriver driver = new ChromeDriver();
driver.get("https://www.facebook.com/");
driver.manage().window().maximize();
```

```
List<WebElement> imageList = driver.findElements(By.tagName("img"));
int size = imageList.size();
System.out.println(size);

int count=0;

for (int i = 0; i < imageList.size(); i++) {

WebElement element = imageList.get(i);

String attribute = element.getAttribute("src");

if (attribute !=null ) {

URL url = new URL(attribute);

URLConnectionurlConnection= url.openConnection();
HttpURLConnection http = (HttpURLConnection) urlConnection;
int responseCode = http.getResponseCode();

if (responseCode !=200) {
count++;
System.out.println(attribute);}  }
}
System.out.println(count);
driver.quit();
}
}

public class Windowhandles {

public static void main(String[] args) {

System.setProperty("webdriver.chrome.driver",
                              "C:\\Users\\KESAVAN\\eclipse-workspace\\New
folder\\Selenium\\SeleniumDay12\\Driver\\chromedriver.exe");

WebDriver driver = new ChromeDriver();

driver.get("https://www.amazon.in/");

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

```
WebElementsearchbox=driver.findElement(By.xpath("//input[@id='twotabsearchtextbox']"));

searchbox.sendKeys("iphone",Keys.ENTER);

WebElementselectiphone13=driver.findElement(By.xpath("//span[text()='OnePlus Nord 2T 5G (Gray Shadow, 8GB RAM, 128GB Storage)']"));

selectiphone13.click();

Set<String> allWindowId = driver.getWindowHandles();

List<String>l= new ArrayList<String>(allWindowId);

driver.switchTo().window(l.get(1));

WebElement addcart = driver.findElement(By.id("add-to-cart-button"));

addcart.click();

driver.switchTo().window(l.get(0));


public class WebTableModel {

public static void main(String[] args) throws IOException, AWTException
{

System.setProperty("webdriver.chrome.driver",
"C:\\Users\\KESAVAN\\eclipse-workspace\\New folder\\Selenium\\SeleniumDay9\\Driver\\chromedriver.exe");
WebDriver driver= new ChromeDriver();

driver.get("https://www.w3schools.com/html/html_tables.asp");

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

WebElement tableData=driver.findElement(By.id("customers"));

List<WebElement> list = tableData.findElements(By.tagName("tr"));

for (int i = 0; i < list.size(); i++) {
```

```
WebElement ele = list.get(i);

List<WebElement> list2 = ele.findElements(By.tagName("td"));

for (int j = 0; j < list2.size(); j++) {

WebElement element = list2.get(j);
String text = element.getText();
System.out.println(text);
}
String text = ele.getText();
System.out.println(text);
}
}
}

public class Iframe {

public static void main(String[] args) {

System.setProperty("webdriver.chrome.driver",
                        "C:\\Users\\KESAVAN\\eclipse-workspace\\New
folder\\Selenium\\SeleniumDay12\\Driver\\chromedriver.exe");

WebDriver driver = new ChromeDriver();

driver.get("https://demoqa.com/frames");

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

List<WebElement> list = driver.findElements(By.tagName("iframe"));

int size = list.size();
System.out.println(size);

driver.switchTo().frame(0);

driver.switchTo().defaultContent();
}}


public class TakesScreenshoot {

public static void main(String[] args) throws IOException {
```

```
System.setProperty("webdriver.chrome.driver",
"C:\\Users\\KESAVAN\\eclipse-workspace\\New
folder\\Selenium\\SeleniumDay8\\Driver\\chromedriver.exe");
WebDriver driver=new ChromeDriver();

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

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

TakesScreenshot ts=(TakesScreenshot)driver;
File source = ts.getScreenshotAs(OutputType.FILE);

File destination = new File("D:\\test\\demo.png");

FileUtils.copyFile(source, destination);
}

}
```

```
public class HighlightWebElement {

public static void main(String[] args) {

WebDriverManager.chromedriver().setup();

WebDriver driver = new ChromeDriver();

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

WebElement element = driver.findElement(By.id("SIvCob"));

JavascriptExecutor js = (JavascriptExecutor) driver;

js.executeScript("arguments[0].setAttribute('style','background:red')"
,element);
driver.close(); }}
```

```
public class chatBoy {

public static void main(String[] args) {
```

WebDriverManager.*chromedriver*().setup();

WebDriver driver = **new** ChromeDriver();

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

driver.switchTo().frame("iframe");

Actions action=new Actions(driver);

action.moveToElement(driver.findElement(By.Xpath("//"))).build().perform()
.

Driver.findElement(By.xpath("//")).click();

```
public class AutoSuggestionCompletion {

public static void main(String[] args) throws IOException,
InterruptedException {
System.setProperty("webdriver.chrome.driver","C:\\Users\\KES
AVAN\\eclipseworkspace\\Newfolder\\Selenium\\Selenium12\\Dri
ver\\chromedriver.exe");
WebDriver driver = new ChromeDriver();
driver.get("https://www.google.com/");
driver.manage().window().maximize();

driver.findElement(By.name("q")).sendKeys("Selenium");
Thread.sleep(3000);

String xp="//span[contains(text(),'selenium')]";

List<WebElement> allsuggestions =
driver.findElements(By.xpath(xp));

int count = allsuggestions.size();
System.out.println(count);

for (WebElement webElement : allsuggestions) {
String text = webElement.getText();
```

```
System.out.println(text);

if (webElement.getText().equals("selenium tutorial")) {
     webElement.click();
     break;
               }
          }
Thread.sleep(5000);
driver.close();
}}

public class FileDownLoad {
public static void main(String[] args) {
System.setProperty("webdriver.chrome.driver",
                   "C:\\Users\\KESAVAN\\eclipse-
workspace\\Newfolder\\Selenium\\SeleniumDay10\\Driver\\chrom
edriver.exe");
WebDriver driver = new ChromeDriver();
driver.get("http://www.leafground.com/pages/download.html");
driver.manage().window().maximize();

File filelocation= new File("D:\\Interview Preparation
Note\\Selenium");

File[] allfiles = filelocation.listFiles();
for (File eachfiles : allfiles) {

if (eachfiles.getName().equals("Selenium interview Q & A"))
{
System.out.println("file is available");
break;
}    }
```

```
public class UploadExamples {You can achieve this by using sendkeys() or Robot class method. Locate the text box and set the file path using sendkeys() and click on submit button
public static void main(String[] args) throws AWTException, InterruptedException {
System.setProperty("webdriver.chrome.driver", "C:\\Users\\KESAVAN\\eclipse-workspace\\New folder\\Selenium\\SeleniumDay10\\Driver\\chromedriver.exe");
WebDriver driver = new ChromeDriver();
driver.get("http://www.leafground.com/pages/upload.html");
driver.manage().window().maximize();

WebElement element = driver.findElement(By.name("filename"));

Actions actions = new Actions(driver);
actions.click(element).perform();

String file = "D:\\Anand Material\\JavaInterviewBasicQuestions----2 copy.docx";

StringSelection selections = new StringSelection(file);

Toolkit.getDefaultToolkit().getSystemClipboard().setContents (selections, null);
Robot robot = new Robot();
Thread.sleep(4000);
robot.keyPress(KeyEvent.VK_CONTROL);
robot.keyPress(KeyEvent.VK_V);
robot.keyRelease(KeyEvent.VK_V);
robot.keyRelease(KeyEvent.VK_CONTROL);
Thread.sleep(4000);
robot.keyPress(KeyEvent.VK_ENTER);
robot.keyRelease(KeyEvent.VK_ENTER);}}


public class ToolTips {
static WebDriver driver;
public static void main(String[] args) {
```

```
System.setProperty("webdriver.chrome.driver",
"C:\\\\Users\\\\KESAVAN\\\\eclipse-workspace\\\\New
folder\\\\Selenium\\\\Selenium12\\\\Driver\\\\chromedriver.e
xe");

WebDriver driver = new ChromeDriver();
driver.get("https://www.leafground.com/pages/tooltip.html");
driver.manage().window().maximize();

WebElement name = driver.findElement(By.id("age"));

String Tooltip = name.getAttribute("title");

System.out.println(Tooltip);
driver.close(); } }
```

Implicit wait

Implicit wait commands selenium to wait for a certain amount of time before throwing a "No such element" exception.

Driver.manage().timeouts().implicitlywait(TimeOut, TimeUnit.Seconds);

Explicit wait

Explicit wait is used to tell web Driver to wait for certain conditions before throwing an "ElementNotVisibleException" exception.

Webdriverwait wait = new WebDriverwait(WebDriver Reference, TimeOut);

Wait.until (Expected condition.visibilityOf (element));

1.alertIsPresent() 2.elementSelectionStateToBe()3.elementToBeclickable()

4. visibilityOfAllElements()5. visibilityOfAllElementsLocatedBy()

Fluent Wait

Fluent wait is used to tell the web driver to wait for a condition, as well as the frequency with which we want to check the condition before throwing an "ElementNotVisibleException".

Wait wait= new fluentwait(driver)

.withTimeout(20, TimeUnit.SECONDS)

.pollingEvery(5,TimeUnit.SECONDS)

.ignoring(Exception.class);

Actions:-c

For mouseOverAction we can use Actions class

Actions a = new Actions(WebDriver ref name);

Methods

a.moveToElement(WebElement)---Mouse over point

a.dragAndDrop(source,target)---drag and drop

a.sendKeys(source,sequence)---To pass and values in the textbox

a.doubleClick(WebElement)—perform double click

a.contextClick(WebElement)---To perform right click

build.perform---to mentioned Mandatory for all the above methods

Robot:-C

To perform keyboard action in java

Robot r = new Robot();

r.keyPress();

r.keyRelease();

Alert:-I

To handle alert in the web applications

Alert a = WebDriver.switchTo().alert();

Method

a.accept()----Accept the alert

a.dismiss()----Dismiss the alert

a.sendKeys()---To insert the value

a.getText()----To print text in the alert

1. Simple Alert

2. Confirm Alert

3. Prompt Alert

JavaScriptExecutor:-I

JavaScriptExecutor js=(JavaScriptExecutor)driver;

Method

js.executeScript("arguments[0].setAttribute('value','inputtxt')",webElement ref);

Objectobj=js.executeScript("return arguments[0].getAttribute('value')",webElement ref);

js.executeScript("arguments[0].click()",webElement ref);

js.executeScript("arguments[0].scrollIntoview(false)",webElement ref);----ScrollUp

js.executeScript("arguments[0].scrollIntoview(true)",webElementref);----ScrollDown

upload a file in Selenium WebDriver

You can achieve this by using sendkeys() or Robot class method. Locate the text box and set the file path using sendkeys() and click on submit button

Locate the browse button ->

WebElement browse =driver.findElement(By.id("uploadfile"));

Pass the path of the file to be uploaded using sendKeys method

```
browse.sendKeys("D:\\SeleniumInterview\\UploadFile.txt");
```

login to any site if it is showing an Authentication Pop-Up for Username and Password

To handle authentication pop-ups, verify its appearance and then handle them using an explicit wait command.

Use the explicit wait command

```
WebDriverWait wait = new WebDriverWait(driver, 10);
```

Alert class is used to verify the alert

```
Alert alert = wait.until(ExpectedConditions.alertIsPresent());
```

Once verified, provide the credentials

```
alert.authenticateUsing(new UserAndPassword(<username>, <password>));
```

TestNG

Test Next Generation

Adv

- It provides default **HTML reports**.
- We can change the **order of execution** of test cases using "**priority**".

```
@Test(priority=10)
public void tc1() {
    System.out.println("testcase 1");
```

- We can ignore particular test case from execution using **(enabled=false);**

```
@Test(enabled=false)
public void tc3() {
    System.out.println("testcase 3");
}
```

- We can run a particular test case multiple times using **invocation count**

```
@Test(invocationCount=3)
public void tc3() {
    System.out.println("testcase 3");
}
```

- We can pass **data from testing.xml file** to test case using **parameters tag**

```
@Parameters({"email","pass"})
@Test
public void tc1(String email,String pass) {
  <parameter name="email" value="abc@gmail.com">
  </parameter>
  <parameter name="pass" value="123"></parameter>
```

- We can pass **bulk of data** to a test case using **Data Provider**

```java
@Test(dataProvider="sampleData")
public void tc2(String email,String pass) {
    driver.get("https://www.facebook.com/");
    WebElement txtEmail = driver.findElement(By.id("email"));
    txtEmail.sendKeys(email);
    WebElement txtPass = driver.findElement(By.id("pass"));
    txtPass.sendKeys(pass);
}

@DataProvider(name="sampleData")
public Object[][] data() {
    return new Object[][] {
        {"abc","abcdef"},
        {"ijk","ijklmn"},
        {"xyz","xyzabc"}
    };
```

- We can **rerun the failed test** cases both **manually and automatically**
- We can do **parallel execution** to save the time consumption

```xml
<suite name="Suite" parallel="classes">
  <test thread-count="10" name="Test">
    <classes>
      <class name="org.day4.Asser2"/>
      <class name="org.day4.Asser3"/>
      <class name="org.day4.Asser4"/>
    </classes>
```

- We can do the **cross browser testing** to check compatibility and stability of the application.

```
@Parameters({ "browser" })
@Test
public void tc1(String bwn) {

    if (bwn.equals("chrome")) {
        WebDriverManager.chromedriver().setup();
        driver = new ChromeDriver();
        driver.manage().window().maximize();
    } else if (bwn.equals("ie")) {
        WebDriverManager.iedriver().setup();
        driver = new InternetExplorerDriver();
        driver.manage().window().maximize();
    }

    driver.get("https://www.google.co.in/");
    driver.findElement(By.name("q")).sendKeys("Greens",Keys.ENTER);
```

```
<suite name="Suite" parallel="tests">
  <test name="chromeTest">
  <parameter name="browser" value="chrome"></parameter>
        <classes>
            <class name="org.day4.Asser" />
        </classes>
    </test> <!-- Test -->
      <test name="ieTest">
  <parameter name="browser" value="ie"></parameter>
        <classes>
            <class name="org.day4.Asser" />
        </classes>
```

- We can **group** the test cases

```
@Test(groups="reg")
public void tc1() {
      System.out.println("1");
}
@Test(groups="smoke")
public void tc3() {
      System.out.println("3");
```

```
<groups>
<run>
<include name="reg"></include>
</run>
```

- Both Hard Assert and Soft Assert are possible.

@optional

```
@Parameters({"mai","pass"})
@Test
public void tc1(@Optional("xyzyzv@hag.com")String email,String pass) {
```

Self Intro

Hi, This is Jeyakannan Ramaraj, currently working in HCL Technologies for past 4.6 years in both automation and Manual.

I have experienced in different domain such Banking and Travel. My current project is Banking which is based on Boston..North America

In that we follow agile methodology with 2 weeks of sprint.

We implemented BDD framework with cucumber tool integration of J-unit.

In this project we use Maven as Build Management Tool

We use design pattern such as Page Object model which is used to maintain the locator in page wise and improve code reusability.

And singleton design pattern model which used to avoid multiple object creation.

For maintain test data we use Data Driven framework with use of apache poi dependency.

We use Jira as Defect tracking tool, Git for Source code management tool, CI/CD we use Jenkins.

Apart from this I have experience on other framework such as TDD testing which we used to execute parallel and cross browser experience.

Roles and Responsibility

Once the requirement comes to me I will understand the requirements.

If I have any doubts in the requirements I will ask for the walk through session.

BA will give me the proper walk through session on the requirement that I hold and after the walk through session I will be very clear with what is the testing that I have to perform.

So I can easily scope what to test and what not to test

After that I will be asking for the application access.

In mean time my team lead will prepare a test strategy and test plan document and once the planning is done we will go the test case design.

Since I know the requirements, I will be writing the test cases.

For manual stories we will go for the manual test cases and for automated stories I need to create automated test cases.

After creating the test cases and for all the test cases we need of test data and after creating test data I will go for the review of my test cases.

There are three level of reviews one is peer review, next is lead review and BA review.

So after completing these reviews I might have some review comments which I haven't covered before.

I will update the review comments and resubmit my test cases for reviewing it and I will get it approved.

Once I got approval I will be waiting for the build from developer. Once I got the build from developer I will start executing manually for manual test cases and my scripts will execute the automated test cases like automation related functionalities.

So we will be following all the retesting, regression, sanity and smoke based on the time which the project might ask and we will be executing every single story. In

case of any bugs we will raise bug and entire defect mgt will happen over there.

After developer has fixed the bug I will perform retesting and in that way I will rerunning all the failed test cases and complete the execution on time.

Once the execution is completed I will be closing my stories and thereby we will be closing one by one story and we will be giving signoff to our client.