**­­Selenium Interview Question**

**Q>What are the advantages of automation testing? (Cybage, Abiba system)**

Ans:-

It supports execution of repeated test cases.

It facilitates parallel execution.

It aids in testing a large test matrix.

It improves accuracy because there are no chances of human errors.

It saves time and money.

**Q> Can you please explain Selenium Architecture? (Infy, Cybage, Emc^2)**

Ans:- Language Bindings, JSON Wire Protocol, Browser Drivers, Real Browsers

**Q> What type of test you have automated? (Wipro, techM, infinity)**

Ans- Automation mainly focuses on regression testing, smoke testing and some time you can for End to End test cases.

**Q> How many test cases you have automated per day? (Intuit, sears, Amazon)**

Ans- It totally depends on your manual test cases. Sometimes we can automate 3-4 test cases per day which contain limited operation and some validation. Some test cases may take 1 day or more than one day as well.

It totally depends on test case complexity.

**Q> How to work with Chrome, IE or any other third party driver? Why we need separate driver for them? (talentica, xpanxion,vertis, JaMocha tech)**

Ans- Selenium by default supports only Firefox browser so in order to work with Chrome and IE browser we need to download separate drivers for them and specify the path.

**Q> what are the challenges involved with selenium ( MindTree, Persistent, Nautica)**

Ans:-

1. Generating useful test status reports

1. Dealing with pop-up windows

2. Testing Flash or Silver light apps

3. Unexpected error launching Internet Explorer. Browser zoom level should be set to 100% by default for the IE browser to overcome this error

5. Capturing screen shots, either to file or in some form of report

**Q> What are the challenges you have faced while automating your application? (Kpit, 3I infotech, Aftek, CMC limited, Nokia Siemens )**

Ans:- At initial stage of automation, during file uploading I faced challenges because I was not aware with AutoIT.

**Q> What is Alert window/ JavaScript Alert and How to handle alert in Selenium Webdriver? ( DataMatric, Eclerx)**

Ans:- driver.switchTo().alert().accept() = To accept the alert

driver.switchTo().alert().dismiss() = to dismiss the alert

**Q> Have you ever worked on frames? In addition, how to handle frames in Selenium? (Fulcrum, cybage, geometric,vertis, NTT data)**

Ans:- Please refer to notes for same.

**Q> What are different locators available in Selenium? (Real soft, CA technologies, quest)**

Ans:- ID, ClassName, LinkText, partialLinkText, xpath, css, etc

**Q> what are different xpath functions ( Target, amazon, cilisious, capco, sunguard)**

Ans:- contains(), starts-with(), text() etc

**Q> How to verify checkbox (any element) is enable/disabled/ checked/Unchecked/ displayed/ not displayed? (Xpanxion, symphony, vodafone, xoriant, igate)**

Ans:-

isDisplayed();

isEnabled();

isSelected();

Example:- System.out.println(radios.get(0).getAttribute("checked")); //is selected or not

**Q> Difference between QUIT and Close? (Infy, tcs, L&T, IBM, Barclays )**

Ans:-

driver.close – It closes the the browser window on which the focus is set.

driver.quit – It basically calls driver.dispose method which in turn closes all the browser windows and ends the WebDriver session gracefully.

**Q> What is default Page Load Timeout in selenium? ( Mastek, Nihilent)**

Ans:- its zero. thats why we need to add waits in our program

**Q> What are different types of wait and difference between them? Which one you have used frequently? (Collabra, Symantec, Balaji solutions, JP morgan, amazon, )**

Ans:- Implicit Wait, Explicit Wait, Fluent Wait

**Q> What is JavaScript Executor and where you have used JavaScript executor? (talentica, Sasken, GE, CGI)**

Ans:-

JavaScriptExecutor is an interface which provides mechanism to execute Javascript through selenium driver.

It provides “executescript” & "executeAsyncScript" methods, to run JavaScript in the context of the currently selected frame or window.

Sometimes selenium click() does not work, we have used JavaScriptExecutor to make click happen

**Q> How to capture Screenshot in Selenium? (Rediff, Cynapse, IBM)**

Ans:-

Below code captures the screenshot

public static void ScreenShot(WebDriver driver,StringscreenshotName) throws IOException

{

TakesScreenshotts =(TakesScreenshot)driver;

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

FileUtils.copyFile(Source, new File("./ScreenShots/"+screenshotName+".png"));

}

**Q> Can we capture screenshot only when test fails? (Nihilent, L&T, KPIT, Nuance)**

Ans:- yes. below code will do that

@AfterMethod

public void tearDown(ITestResult result) throws IOException

//ITestResult is an interface which give information about our current test case which is under execution

// result variable will store all the details of @Test along with the pass or fail result

{

if(ITestResult.FAILURE==result.getStatus())

{

UtilityScrnSht.ScreenShot(Page.driver, result.getName()); //user created method

}

}

**Q> Difference between WebDriverlistner and TestNG listner? Usage of the same? (Nuance, 3I, Emc2)**

Ans:- You must have always craved for more logs from the Webdriver so that you can debug your scripts or may be log more information about your tests.

Here is your answer to it, WebDriverEventListner and TestNgListner(ITestListener Interface.)

In TestNg you can use Listeners in Annotation.

WebDriverEventListener – This is an interface, which have some predefined methods so we will implement all of these methods.

Difference:- TestNG Listener are triggered at test level such as before starting test after the test or when test fails etc;

whereas WebDriver Listener are triggered at component level such as before click, after click etc

**Q> How to scroll in Selenium Webdriver? (Persistent, TechM, dataMatrix, capita)**

Ans:- there are two ways to do that

1>use Java Script

Example:- // This will scroll page 400 pixel vertical

((JavascriptExecutor)driver).executeScript("scroll(0,400)");

2> use robot class

Robot robot = new Robot();

robot.keyPress(KeyEvent.VK\_PAGE\_DOWN);

robot.keyRelease(KeyEvent.VK\_PAGE\_DOWN);

**Q> How to upload files in Selenium? Have you ever used AutoIT? (Plivo, Accenture, Igate,capita)**

Ans:- By the help of AutoIT

**Q>Diffrence between findElement and FindElements? (Sonata, cognizant,capita)**

Ans:-

FindElement:- used in targetting single webelement. If targeted element is not found on the page then it will throw NoSuchElementException .

FindElements:- used in targetting multiple webelement. If not found any element on current page as per given element locator mechanism, it will return empty list.

**Q> What is log4j And How to generate log files in Selenium? (Xorient)**

Ans:-Log file is just simple file, which keep track of the record or event or info when any event happens or any software run. This whole process known as logging.

We can create log file as simple log file as well as HTML format.

Log4j is open source project from Apache which help us achive above mentioned things.

**Q> Explain what is assertion in Selenium and what are the types of assertion? (Nucleus, persistent, Infosys)**

Ans:- Asserts helps us to verify the conditions of the test and decide whether test has failed or passed. A test is considered successful ONLY if it is completed without throwing any exception.

Assertions in selenium can be used in 3 modes which are explained below:

1. assert: If you use assert in your tests then the test will be aborted if the assert fails. Next test case will start executing in case you are running a test suite.

2. verify: If verify is used then the test case will not abort even if the verify fails. It will continue executing and log the failure for the failed conditions.

3. waitFor: waitFor command waits for the condition to become true. If the condition is true already the test case continues else it waits for the conditions to become true. If the condition doesn’t becomes true within specified time-out period test will fail and halt.

**Q> what is the difference between assert and verify in selenium (all the companies )**

Ans:- When an “assert” fails, the test will be aborted.

Where if a “verify” fails, the test will continue executing and logging the failure.

So when Assertion fails all test steps after that line of code are skipped :(To resolve this we write this command in try catch block :)

**Q> Explain the difference between single and double slash in X-path? (Magneto, Zenasr)**

Ans:-

Single slash ( / ) start selection from the document node

It allows you to create ‘absolute’ path expressions

Double slash ( // ) start selection matching anywhere in the document

It enables to create ‘relative’ path expressions

**Q> How to type inside text box without using sendKeys() method (Pubmatic, BMC, I gate)**

Ans:- We need to use JavaScriptExecutor . Refer to Java Script notes for details

example:-

// Open application

driver.get("enter your application URL");

// This will execute JavaScript in your script

((JavascriptExecutor)driver).executeScript("document.getElementById('Enter id of input box here').value='Selenium'");

**Q> What is better xpath or .css?**

Ans :- CSS selectors perform far better than Xpath and it is well documented in Selenium community. Here are some reasons,

* Xpath engines are different in each browser, hence make them inconsistent
* IE does not have a native xpath engine, therefore selenium injects its own xpath engine for compatibility of its API. Hence we lose the advantage of using native browser features that WebDriver inherently promotes.
* Xpath tend to become complex and hence make hard to read .

However there are some situations where, you need to use xpath, for example, searching for a parent element or searching element by its text

**Q> What is Webdriver? (synechron, Hitachi, Simens )**

Ans :- Its an interface.

**Q> How would you handle dynamic elements while automating?**(Infinite, Wipro, Kretio)

Ans :- We can use Xpath methods such as starts-with or contains()

**Q> What are profiles in selenium? (Dautche bank, 3I infotech)**

Ans :- This feature is available only with firefox.

If you want to open an instance of firefox which has your plugins & bookmarks then one can use firefox profile .

FirefoxProfile profile = new FirefoxProfile(new File("D:\\Selenium Profile"));

WebDriver driver = new FirefoxDriver(profile);

**Q>Is there any other way to find xpath other than firebug?(Synechron)**

Ans :- One can right click on Web element and choose “inspect element ” option.

**Q> How would you automate charts/graphs/tool tips? (NTT data,JP Morgan, Mphasis )**

Ans:-Many web applications contains charts to show different data In chart view. One of the chart they are using Is Pie chart. It Is very Important for us to know how to **automate** these **pie charts In selenium WebDriver** test. Few of the charts are very easy to automate but It Is very hard to automate some charts as we are unable to locate parts of pie chart.

@Test

public void pieChart(){

**//Locate pie chart elements based on different colors.**

WebElementVioleteColor = driver.findElement(By.xpath("//\*[contains(@class,'yui3-svgSvgPieSlice')][@fill='#66007f']"));

WebElementGreenColor = driver.findElement(By.xpath("//\*[contains(@class,'yui3-svgSvgPieSlice')][@fill='#295454']"));

WebElementGreyColor = driver.findElement(By.xpath("//\*[contains(@class,'yui3-svgSvgPieSlice')][@fill='#e8cdb7']"));

WebElementLightVioleteColor = driver.findElement(By.xpath("//\*[contains(@class,'yui3-svgSvgPieSlice')][@fill='#996ab2']"));

WebElementBrownColor = driver.findElement(By.xpath("//\*[contains(@class,'yui3-svgSvgPieSlice')][@fill='#a86f41']"));

**//locate tooltip pie chart.**

WebElement ToolTip = driver.findElement(By.xpath("//div[contains(@id,'\_tooltip')]"));

**//Click on pie chart parts and get tooltip values.**

System.out.println("-X-X-X-X-X-X-X-X- Violete Part -X-X-X-X-X-X-X-X-");

VioleteColor.click();

System.out.println(ToolTip.getText());

System.out.println();

System.out.println("-X-X-X-X-X-X-X-X- Grey Part -X-X-X-X-X-X-X-X-");

GreyColor.click();

System.out.println(ToolTip.getText());

System.out.println();

System.out.println("-X-X-X-X-X-X-X-X- Light Violete Part -X-X-X-X-X-X-X-X-");

LightVioleteColor.click();

System.out.println(ToolTip.getText());

System.out.println();

System.out.println("-X-X-X-X-X-X-X-X- Green Part -X-X-X-X-X-X-X-X-");

GreenColor.click();

System.out.println(ToolTip.getText());

System.out.println();

System.out.println("-X-X-X-X-X-X-X-X- Brown Part -X-X-X-X-X-X-X-X-");

BrownColor.click();

System.out.println(ToolTip.getText());

}

}

**Q> What is the tag used for links? (unknown)**

Ans :- <a>

**Q>How to scroll the webpage using webdriver? (Sunguard, Vodafone, HSBC, Synechron, PGS, Fujitsu)**

Ans :- Selenium handle scrolling page automatically but if want to scroll page using Selenium then yes we can do easily using JavaScript.

**We have method scroll(horizontal, vertical) i.e. scroll(0,400)**

To execute JavaScript code inside Selenium script we can take the help of JavascriptExecutor

JavascriptExecutor is an Interface which is available in  package **org.openqa.selenium.JavascriptExecutor;**

Inside this Interface we have a method called executeScript()- so whatever script you will pass as a string It will be executed by JavascriptExecutor.

public class ScrollTestCase {

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

 // load browser

  WebDriver driver=new FirefoxDriver();

 // maximize browser

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

  // Open Application

  driver.get("http://jqueryui.com");

  // Wait for 5 second

  Thread.sleep(5000);

 // This  will scroll page 400 pixel vertical

  ((JavascriptExecutor)driver).executeScript("scroll(0,400)");

 }

}

There is one more way to do the same .

If you want to use the keys form the keyboard to**scroll UP or DOWN** you can use the WebDriver sendKeys() method and pass the **PAGE\_UP** or **PAGE\_DOWN** as an argument:

@Test(groups = {"smoke"})

public void test\_Scroll\_Page\_Using\_Keys() throws Exception {

    init();

    driver.navigate().to("<http://www.alexa.com/topsites/countries;15/LU>");

    Actions action = new Actions(driver);

    action.sendKeys(Keys.PAGE\_DOWN);

    waitSeconds(2);

    action.click(driver.findElement(By.partialLinkText("Google.com.ph"))).perform();

}

Q>How to find the present URL on the application? (Persistent, accenture)

Ans :- WebDriver driver =newWebDriver();

Stringurl=driver.getCurrentUrl();

**Q>How to find the number of browsers opened by selenium?**

Ans :- driver.getWindowHandles()

Q> how to use open new tab in existing browser (One network, media ocean, PTC)

Ans :-

driver.findElement(By.tagName("body")).sendKeys(Keys.CONTROL,"t");

or

driver.navigate().to(urlToOpen);

Actions action =newActions(driver);

// close the newly opened tab

action.keyDown(Keys.CONTROL).sendKeys("w").perform();

// switch back to original

action.keyDown(Keys.CONTROL).sendKeys("1").perform();

 Ctrl+t combination to open a new tab, Ctrl+w to close it, and to switch back to original tab I used Ctrl+1 (the first tab).

Q>How will you simulate a keyboard action using webdriver?

Ans :- Please refer to notes

**Q>Write a sample code to perform browser refresh(Amazon,** prospance, quest, Dautche bank)

Ans :- there are multiple ways to do it

1.driver.navigate().refresh();

2.driver.get(driver.getCurrentUrl());

3.driver.navigate().to(driver.getCurrentUrl());

4.driver.findElement(By.id("Contact-us")).sendKeys(Keys.F5);

5.driver.executeScript("history.go(0)");

**Q>Difference between click and clickandwait() statements? (Sapient )**

Ans :- click command only execute the command and then proceed to next command of the script.

"clickAndWait" command is some different than "click" command. It will wait for page to load means next command will be not executed until page not loaded successfully. You need to use this command when your   
are clicking somewhere on page of software web application and page start reloading content.

Q>How to run the selenium webdriver scripts in the background? Write a sample code to perform that action. (Accenture, CGI, Lloyds)

Ans :- To achieve this one has to use either HtmlUnitDriver or PhantomJS

**Q>I have a hidden webelement in a page and like to get the static text. How to do that? (Eclarx, Accenture)**

Ans :-

Since a user cannot read text in a hidden element, WebDriver will not allow access to it as well. However, it is possible to use Javascript execution abilities to call getText directly from the element..."

publicstaticStringgetText(WebDriver driver,WebElement element){

return(String)((JavascriptExecutor) driver).executeScript(

"return jQuery(arguments[0]).text();", element);

}

**Q>How do I know when a page has finished loading? (one network )**

Ans :- Selenium does this by default for us.

**Q>How do you handle secured connection error in HTTPS ? (Sunguard, Infosys, Cybage)**

Ans :-

For Firefox :-

//Creating new Firefox profile

FirefoxProfile profile = new FirefoxProfile();

profile.setAcceptUntrustedCertificates(true);

profile.setAssumeUntrustedCertificateIssuer(false);

driver = new FirefoxDriver(profile);

For Chrome :-

DesiredCapabilitieshandlSSLErr = DesiredCapabilities.chrome ()

handlSSLErr.setCapability (CapabilityType.ACCEPT\_SSL\_CERTS, true)

WebDriver driver = new ChromeDriver (handlSSLErr);

Q>Does WebDriver support file uploads? (unknown)

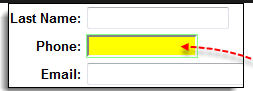
Ans :- No

Q>I got an unexpected pop up/alert error in my screen, how will you handle in your script? (Unknown)

Ans :- refer popup and alert notes for same

**Q> How to highlight webElement in Selenium? (Synechron, A4SureTech, Sasken)**

For example :-



Ans :-

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

 // Create the  JavascriptExecutor object

  JavascriptExecutorjs=(JavascriptExecutor)driver;

// find element using id attribute

  WebElement username= driver.findElement(By.id("email"));

 // call the executeScript method

  js.executeScript("arguments[0].setAttribute('style,'border: solid 2px red'');", username);

**Q> how to find out xpath or view dom when test case is already running (Barclays, Amdocs, cognizant)**

Ans :- You will have to create firefoxprofile and add the firebug and firepath plugins into that.