1. **What is selenium?**

-Selenium is a open source automation tool for testing web application.

1. **How many language support selenium?**

-Java,C#,php,python,ruby etc.

1. **Which browsers support selenium?**

-It is support multiple browsers link, Chrome, FireFox, Edge etc

1. **Components of selenium?**

-Selenium IDE, Selenium RC, Selenium WebDriver and selenium GRID.

1. **What are advantages of selenium?**

-It’s open source.

-It’s support almost all browser.

-It’s support multiple languages.

-It’s support multiple operating systems.

-Selenium supports Parallel Test Execution

1. **What are disadvantages of selenium?**

-It is not supports OS bases popup.

-it is not support automate for Windows application.

-it is not support Captcha.

- Not 100% perfect for handling dynamic web elements

- Can’t perform mobile automation on its own

1. **What testing types support selenium?**

-Functional Testing.

-Regression Testing.

-Smoke Testing/Build verification testing

-End to End testing.

1. **What are the locaters in selenium?**

-Name - Same as ID although it is not unique

-id - Unique for every web element

-xpath - Searches elements in the DOM

-linktext - Uses anchor text to locate web elements

-classname - Uses the class name attribute

-CSS - Works on element tags and attributes

1. **What is xpath ?How it’s work?**

* Xpath is a locator to locate the object/ Web element in the page.
* It’s work by navigating through the DOM.

1. **What is absolute and relative xpath?Whis it single slash(/) and double slash(//) With example?**

-absolute xpath It is search from root node until the target is achieve.

eg. /html/body/div[1]/div[5]/form/table/tbody/tr[3]/td/input

-relative xpath it can be navigate from any node inside the dom.

Eg///div[@id=app]

1. **How Do You Locate An Element By Partially Comparing Its Attributes In** **XPath?**

-Using contains() method.

1. **What is WebDrver?**

-It is an interface.

1. **Which is the supr class of WebDriver?**

- SearchContext is the super class of webdriver interface.

1. **Why we writing WebDriver driver = new ChromeDriver();?**

-driver is the variable of WebDriver inferface.

- We are instantiating an object of the ChromeDirver class and storing it into the driver variable.

1. **What are the different exceptions available in selenium?**

- TimeoutException

- NoSuchElementException

- ElementNotVisibleException

- StaleElementException

1. **What is Assertion? Why do we use it?What are the What is soft and hard assert?**

-Assertion allows you to verify the expected result and actual result .In Manual testing we always check for actual and expected result based on which we can pass or fail test cases.We use perform same action .

-Hard Assert: As said above we use assertions to check actual result and expected result based on which we can pass or fail test case. Let’s say we have automated two test cases (test case 1 & test case 2) and for both the test cases we used hard assertions. If test case 1 fails then it will not execute test case 2 and comes out of execution.

-Soft Assert: It’s not like hard assert where even if test case 1 fails it will still continue execution of test case 2. This assert allows to execute all the test cases so that you can continue execution of all the test cases.

1. **What are the different waits available in selenium?** **Synchronization in Web Driver:**

There are three kinds of waits:

1. Implicit Wait-- Used to set the default waiting time throughout the program.

Inistantiation: driver.manage().timeouts().implicitlywait(10,TimeUnit.SECONDS);

1. Explicit Wait-- Used to set the waiting time for a particular instance only.

inistation: WebDriver driver=new FirefoxDriver();

3. Fluent Wait—Used to set the waiting time but it will keep checking for element present in given interval of times. As soon as object found it continue of execution of code.

Note: We have Thread.sleep() method which also provides same mechanism but it is not dynamic and your scrip will go sleep for specified time.

1. **What is WebDriver ?**

-It is an inferface.

1. **What is the command to enter text ?**

-Using sendkeys method you can enter the text.

1. **. How To Enter Text In The HTML Text Box Without Invoking The SendKeys()?**

- There is a Selenium JavascriptExecutor class that provides methods to perform actions on the HTML elements.

// Set up the JS object

JavascriptExecutor js = (JavascriptExecutor)driver;

// Issue command to enter the text

js.executeScript("document.getElementById('textbox').value = 'Some Text';");

1. **What Is The Method To Read The JavaScript Variable Using Selenium WebDriver?**

* Again, we can utilize the JavascriptExecutor class to read the value of a JS variable. See the below code.

// Set up the JavaScript object

JavascriptExecutor jscript = (JavascriptExecutor) webdriver;

// Read the site title

String strTitle = (String)jscript.executeScript("return document.title");

System.out.println("Webpage Title: " + strTitle);

1. **What is the command to clare the field?**

-Using clare()method.

1. **How to get the text from webpage?**

-Using getText() method.

1. **How to submit the form of web application?**

-Using .submit()or .click() method

1. **What is the command to enter the text box?**

- sendKeys(Keys.ENTER);

1. **What is other way to invoke the application?What is get() and navigate()?**

- The driver.get() method waits until the page finish loading.

-The driver.navigate() will only redirect and return immediately.

1. **How Can I Move Back And Forth In a Browser Using Selenium?**

1) navigate().forward() – to move to the next web page as per the browser’s history

2) navigate().back() – to move back to the previous page as per the browser’s history

3) navigate().refresh() – to reload the current page

4) navigate().to(“URL”) – to start a new browser window and opening up the specified link

1. **What is the selenium command to get current url of application?**

- webdriver.getCurrentUrl

1. **What are the command to mamixed browser?**

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

1. **How to delete session cookies?**

-Using webdriver.manage().deleteAllCookies();

1. **Difference between GetWindowHandle() And GetWindowHandles()** **Methods?**

- webdriver.getWindowHandle() – It gets the handle of the active web page.

-webdriver.getWindowHandles() – It gets the list of handles for all the pages opened at a time.

1. **Difference between close() and quite()?**

-close()It closes the active

-quite()It closes all the WebDriver instances opened at a time

1. **What is difference between findElement() and findElements()?**

-findElement() method is used to find one element on your web page. If there are multiple elements are matching for the xpath you have given to find by default it will return first element. If no element found with given xpath then this method will return “NoSuchElementException”.

-fndElements(): This method will return list of web elements where as findElement() method will return only one element. If element not found for given xpath then it will written empty list and not an exception. Where as in case of findElement() method it will return “NoSuchElementException”

1. **What is alert? How To Handle Web-Based Alerts/Pop-Ups In Selenium?**

Using alert we have methods : Alert alert = drivr.switch.window();

Alt.Dismiss(): It handles the alert by simulating the Cancel button.

Alt.Accept(): It handles the alert window by simulating the Okay button.

Alt.GetText(): You may call it to find out the text shown by the alert.

Alt.SendKeys(): This method simulates keystrokes in the alert window.

1. **How to haovedOKwltlhfndle windows based Alerts/Pop-ups in selenium?**

-Using skiule and Robot class using keypress and key release method.

1. **How To Handle Multiple Popup Windows In Selenium?**

**-**Using getWindowHandles()

1. **What Is A Page Object In Selenium WebDriver?**

**-**Page Object is a class in POM corresponding to a web page. It captures the functionality as functions and objects as members.

1. **How do you handle mouse actions?**

**-** Actions is predefined class which contains all the methods related mouse actions.

**Eg.**

1. **What is the page factory in selenium WebDriver?**

- Page Factory is a method to set up the web elements within the page object.

1. **How to capture the screenshot ?**

- File screen = ((TakesScreenshot)ins).getScreenshotAs(OutputType.FILE);

// Now you can do whatever you need to do with it, for example copy somewhere

FileUtils.copyFile(screen, new File("c:\tmp\myscreen.png"))

1. **What are the testNG annocation?**

▪@BeforeSuite – to run before all tests.

▪@AfterSuite – to run only once after all tests.

▪@BeforeClass – to run only once before the first test method.

▪@AfterClass – to run only once after all the test methods of the current class finish execution.

▪@BeforeTest – to run before any test method inside the “Test” tag.

▪@AfterTest – to run after any test method inside the “Test” tag.

1. **What Do You Know About TestNG @Parameters?**

-In TestNG, the “@Parameters” is a keyword that allows the arguments to pass to “@Test” methods.

Please refer to this TestNG tutorial to learn more about parameters.

**43. What Is Data Provider In TestNG?**

-The data provider is a TestNG annotation. It allows you to pass parameters like a property file or a database to a test method.

**44**. **What Is Meant By Grouping In TestNG?**

-It is an innovative TestNG feature that didn’t exist in the JUnit. You can assign methods with proper context and refine groupings of test methods.

You can not only link methods to groups but also tell groups to include other groups.

**45**. **How To Associate A Single Test To Multiple Groups In TestNG?**

-TestNG framework allows multiple tests to run by using the test group feature.

We can associate a single test to multiple groups, as shown in the below example.

@Test(groups = {"regression-testing", "smoke-testing"})

**46. Is TestNG Capable Of Running Multiple Suites?**

Yes, we can run multiple testNG suites in the following manner:

<suite name="SuperSuite">

<suite-files>

<suite-file path="subSuite1.xml" />

<suite-file path="subSuite2.xml" />

...

</suite-files>

</suite>

**47. How do you associate a single test cases in multiple groups?**

TestNG framework allows multiple tests to run by using the test group feature.

We can associate a single test to multiple groups, as shown in the below example.

@Test(groups = {"regression-testing", "smoke-testing"})

**48. What Type Of Test Framework Did You Create Using Selenium?**

While replying to such questions, stay focused, and keep your answer short and crisp. You can start by telling about the different components in your framework and then explain them one by one.

Here is an illustration for your help.

▪ I worked on a framework built on top of the Page Factory framework.

▪ I’ve created a page class for every web page in my application. It keeps the objects and the handler functions.

▪ Every page class has a followup test class where I create tests for related use cases.

▪ I used separate packages to host the pages and their test classes. It’s a best practice to do that way.

▪ The framework also had a lib package for utility and some standard wrapper functions over Selenium APIs.

▪ Java is ca ore programming language used for this project. It was primarily because the team had previous Java experience. Also, we could utilize the TestNG annotations and report features.

▪ Most test cases are data-driven. They require input from the external data source. So, I used Java property/POI class to read from the CSV/XLS files.

▪ We used the TestNG group feature for labeling test cases as P1, P2, and P3.

▪ The Log4J library provided the necessary support for tracing in our project.

▪ Instead of using the TestNG reporting, we preferred the Extent report. It has more graphical options and gives an in-depth analysis of the results.

▪ We built the framework with the help of Maven. Also, Jenkins provided support for automated build and execution.

▪ Bitbucket allowed us to manage our source code using git repositories.

**49. How to handel WebTable ?**

- Using table name

**50. How do select value form drop down?**

-Using select class have s **selectByVisibleText**(): and **selectByIndex():**

**51. How do you find element which is in Frame?**

- In order to identify element and perform some action, which is in Frame, first we need to switch to Frame and perform action on specific element.

**52. How do you switch to Frame?**

- To switch to Frame we have existing method “driver.switchTo().frame()” and this method allows to switch to frame. We can switch to frame using either of below

* Get frame id and pass this id as a parameter to above method
* Get frame / class name and pass this name as a parameter to above method

You can even get the index number of the frame and pass this index number to above method.

**53. How do you come out of frame after performing action in the Ffg**

**rame?**

- We have existing method defaultContent() which takes you out ,jjxof the Frame.

**54. How do you switch between windows using Selenium?**

We have couple of web-based application, which have many windows like when I click on a link it opens in new window. If I have to perform action on newly opened window, I have to switch to newly opened window. Selenium allows switching between windows using “driver.switchTo().window()” this method .