What is Selenium?

1.Selenium can automate only web based application

2.It is open source and It is jar files or library

3.It support multiple browser Chrome, Edge, Firefox, Safari and Opera

4.It support multiple platform Windows, Mac and Linux.

5.It support multiple languages Java, JavaScript, Php, Pearl and ruby..

Selenium Component?

Selenium IDE

Selenium Grid

Selenium WebDriver

What are the locators available to find an element using Selenium?

1.id

2.name

3.className

4.linkText

5.partialLinkText

6.tagName

7.cssSelector

8.xpath

Why ID is preferable than X-Path?

ID is the Preferred locator than X-Path because ID is Unique and is faster when compared to X-Path (slower since it traverses through the DOM). When you find an web element using ID, it would be easy to target the element successfully. Even though the DOM changes in the future, ID remains same, whereas xpath may become invalid.

Note: If the ID contains numbers, it is not preferable to use ID since those numbers keeps changing randomly.

Difference between Absolute Xpath and Relative Xpath?

Absolute Xpath	Relative Xpath
1.Starting from root node	Starting from current node
2.Start with single(/) slash	Start with double(//) slash

Write the syntax for preceding and following x-paths.

Attribute Based (following) :

//tagName[@attribute = 'attributeValue']/following::tagName

Eg: //p[@id = 'test']/following::button

Attribute Based (preceding) :

//tagName[@attribute = 'attributeValue']/preceding::tagName

Eg: //p[@id = 'test']/preceding::button

How to get an attribute value using Selenium WebDriver?

We can achieve this by using the getAttribute() method. It returns the value of the attribute passed as a parameter.

HTML: <input name="nameSelenium" value="valueSelenium">SoftwareTestingMaterial</input>

Selenium Code:

String attributeValue = driver.findElementByName("nameSelenium").getAttribute("value");

System.out.println("Available attribute value is :"+attributeValue);

Output: Available attribute value is : Selenium

What Are The Execptions Thrown By Alert,Frame ,Windows ?

Alert Execptions:

Unhandledalertexception= Execptions hierarchy of UnhandledAlertException

java.lang.Object

java.lang.Throwable

java.lang.Exception

java.lang.RuntimeException

org.openqa.selenium.WebDriverException

org.openqa.selenium.UnhandledAlertException

Noalertpresentexception= Execptions hierarchy of **NoAlertPresentException**

java.lang.Object

java.lang.Throwable

java.lang.Exception

java.lang.RuntimeException

org.openqa.selenium.WebDriverException

org.openqa.selenium.NotFoundException

org.openqa.selenium.NoAlertPresentException

Frame Execptions:Execptions hierarchy of **NoSuchFrameException**

java.lang.Object

java.lang.Throwable

java.lang.Exception

java.lang.RuntimeException

org.openqa.selenium.WebDriverException

org.openqa.selenium.NotFoundException

org.openqa.selenium.NoSuchFrameException

Windows Execptions:

Nosuchwindowexception=Execptions hierarchy of **NoSuchWindowException**

java.lang.Object

java.lang.Throwable

java.lang.Exception

java.lang.RuntimeException

org.openqa.selenium.WebDriverException

org.openqa.selenium.NotFoundException

org.openqa.selenium.NoSuchWindowException

What are the three types of alerts? Various actions that can be performed on an alert?

There are three types of alerts

Simple Alerts:

Simple alerts just have a OK button on them. They are mainly used to display some information to the user.

Confirmation Alerts:

This alert comes with an option to accept or dismiss the alert.

Prompt Alerts:

In prompt alerts you get an option to add text to the alert box.

This is specifically used when some input is required from the user.

Actions on the alert

1) **dismiss()** – The dismiss() method clicks on the “Cancel” button as soon as the pop up window appears.

2) **accept()** – The accept() method clicks on the “Ok” button as soon as the pop up window appears.

3) **getText()** – The getText() method returns the text displayed on the alert box.

4) **sendKeys(String stringToSend)** – The sendKeys() method enters the specified string pattern into the alert box.

Can you take screen shot of an alert?

Snapshot

Taking a snapshot in an alert is not possible in selenium

How to handle the frame in Selenium Webdriver?

1) Select iframe by id or name

driver.switchTo().frame("ID of the frame");

2) Locating iframe using Webelement

driver.switchTo().frame(driver.findElements(By.tagName("iframe").get(0));

3) Locating iframe using index

driver.switchTo().frame(0);

Assume you are within a frame. Explain how can you switch back from a frame.

To switch back from a frame use method defaultContent()

driver.switchTo().defaultContent();

Explain the difference between getWindowHandle and getWindowHandles.

driver.getWindowHandle() – It returns a handle of the Parent Window (a unique identifier)

driver.getWindowHandles() – It returns a set of handles of all the windows which are currently open.

Different between parentframe and defaultcontent?

When you are dealing with multiple iframes in your webpage, then **driver.switchTo().parentFrame()** is generally used to switch the control back to the parent frame.

When you deal with pop-up dialog windows within your webpage, then **driver.switchTo().defaultContent()** is used to switch the control back to default content in the window.

Difference between close() and quit() methods

The **driver.close()** command is used to close the current browser window having focus. In case there is only one browser open then calling driver.close() quits the whole browser session.

The **driver.quit()** is used to quit the whole browser session along with all the associated browser windows, tabs and pop-ups.