

Selenium Questions

1: What is the difference between Xpath and css Selector?

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 in my opinion
- see the link for more: <http://www.rapidprogramming.com/questions-answers/difference-between-css-and-xpath-css-vs-xpath-1388>
- I am expert in many ways to find an element based on what technology is used for the website like Bootstrap, jquery and latest version of HTML. Then I implement directly by ID/Name, xpath and cssSelector, whichever is more efficient i use that code.

2: How to create a jar file ?

Right click on file then click export then select jar file (inside java) and then select your location where u want to save and give any name.

From command line: first compile the class then write: `jar cf (jar name) classname.`

3: What does / and // means in xpath?

One forward slash: / means absolute xpath

In the xpath whenever we start using /, from that point we will have to mention all the descending tags

Double forward slash: // means relative xpath

4: What are the limitations for selenium ide?

Selenium ide has lot of limitation EX:

- Project will fail frequently
- You can not use statement
- Can't use any Loop
- Can't operate cross browsing testing
- Can't operate parallel testing
- Only works with firefox as a plugin

5: What is selenium WebDriver? What are the difference between IDE, RC and Webdriver?

Selenium webdriver is a API (Application Programming Interface) which automate the browser

What are the difference between Selenium IDE, RC and WebDriver

Selenium IDE	Selenium RC	Selenium WebDriver
It only works in Mozilla browser.	It supports with all browsers like Firefox, IE, Chrome, Safari, Opera etc.	It supports with all browsers like Firefox, IE, Chrome, Safari, Opera etc.
It supports Record and playback	It doesn't supports Record and playback	It doesn't supports Record and playback
Doesn't required to start server before executing the test script.	Required to start server before executing the test script.	Doesn't required to start server before executing the test script.
It is a GUI Plug-in	It is standalone java program which allow you to run Html test suites.	It actual core API which has binding in a range of languages.
Core engine is Javascript based	Core engine is Javascript based	Interacts natively with browser application
Very simple to use as it is record & playback.	It is easy and small API	As compared to RC, it is bit complex and large API.

It is not object oriented	API's are less Object oriented	API's are entirely Object oriented
It doesn't supports of moving mouse cursors.	It doesn't supports of moving mouse cursors.	It supports of moving mouse cursors.

6: What is ajax?How to handle Ajax call? (Asynchronous Javascript And Xml)

Ajax is a client-side script that communicates to and from a server/database without the need for a postback or a complete page refresh. The best definition I've read for **Ajax** is "the method of exchanging data with a server, and updating parts of a web page - without reloading the entire page.

You can use WebDriverWait and FluentWait EX:

```
WebElement myDynamicElement = (new WebDriverWait(driver, 10)) .until(new ExpectedCondition<WebElement>()
{ @Override public WebElement apply(WebDriver d) { return d.findElement(By.id("myDynamicElement")); } }
);
```

7: Can u tell me what are the exception in webdriver?

There are 2 type of exception: Checked and Unchecked

Checked

NoSuchElementException

ElementNotVisibleException

ElementNotSelectableException etc..

Unchecked

Arithmetic

Memory out of boundary etc...

8: What is the difference between verify and assert?

Assert: Assert command checks whether the given condition is true or false. Let's say we assert whether the given element is present on the web page or not. If the condition is true then the program control will execute the next test step but if the condition is false, the execution would stop and no further test would be executed.

Verify: Verify command also checks whether the given condition is true or false. Irrespective of the condition being true or false, the program execution doesn't halts i.e. any failure during verification would not stop the execution and all the test steps would be executed.

- When a "verify" command fails then test will continue executing and logging the failure.
- Verify is best used to check non critical things. Like the presence of a headline element.
- When an "assert" command fails then test execution will be aborted.
- Assert is best used when the check value has to pass for the test to be able to continue to run. Like a log in.

9: What are the three common assert in testng or junit?

- Asserttrue
- Assertfalse
- Asserterqual

10: How to open chrome or internet browser?

```
System.setProperty("webdriver.chrome.driver","path for chromedriver.exe file");
```

```
ChromeDriver dr=new ChromeDriver();
```

11: What are the difference between before and before class in junit?

Before run against every single test annotation

BeforeClass run against a class.

12: How to see report in testng?

After running the project u have to refresh the project then it will create testoutput folder inside that there is a file called index.html which u have to open this file using web browser.

13: How to get data using testng.xml file?

First you have to configure testng.xml file as below:

```
<suite name="Suite">
    <test name="ToolsQA">
        <parameter name="sUsername" value="testuser_1"/>
        <parameter name="sPassword" value="Test@123"/>
        <classes>
            <class name="com.Parameter" />
        </classes>
    </test>
</suite>
```

Now you have to write yr code in order to get data from testng.xml file you have to use @Parameters as below:

```
private static WebDriver driver;

@Test
@Parameters({ "sUsername", "sPassword" })
public void test(String sUsername, String sPassword) {

    driver = new FirefoxDriver();
    driver.manage().window().maximize();

    driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);

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

    driver.findElement(By.id("email")).sendKeys(sUsername);

    driver.findElement(By.id("pass")).sendKeys(sPassword);

    driver.findElement(By.id("u_0_n")).click();

    driver.quit();
}
}
```

15: how to run a single test in testng?

testng.xml:

```

<classes>

<class name="test.IndividualMethodsTest">

<methods> <include name="testMethod" /> </methods>

</class>

</classes>

```

16: How to run parallel test using testng?

Testng.xml:

```

<?xml version="1.0" encoding="UTF-8"?>

<!DOCTYPE suite SYSTEM "http://testng.org/testng-1.0.dtd">

<suite name="Suite" parallel="tests">

<test name="FirefoxTest">

<parameter name="browser" value="firefox" />

<classes>

<class name="com.MultiBrowser" />

</classes>

</test>

<test name="IETest">

<parameter name="browser" value="ie" />

<classes>

<class name="com.MultiBrowser" />

</classes>

</test>

</suite>

```

Code:public class Parralel

```

{
    public WebDriver driver;

    @Parameters("browser")

    @BeforeClass

    // Passing Browser parameter from TestNG xml

    public void beforeTest(String browser) {

        // If the browser is Firefox, then do this

        if(browser.equalsIgnoreCase("firefox")) {

            driver = new FirefoxDriver();

            // If browser is IE, then do this

        }else if (browser.equalsIgnoreCase("ie")) {

            // Here I am setting up the path for my IEDriver

```

```

System.setProperty("webdriver.ie.driver", "C:/driver/IEDriverServer.exe");

driver = new InternetExplorerDriver();

}

// Doesn't the browser type, launch the Website

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

}

// Once Before method is completed, Test method will start

@Test public void login() throws InterruptedException {

    driver.findElement(By.id("email")).sendKeys("testuser_1");

    driver.findElement(By.id("pass")).sendKeys("Test@123");

    driver.findElement(By.id("u_0_n")).click();

}

@AfterClass public void afterTest() throws InterruptedException {
    Thread.sleep(3000);
    driver.quit();
}

}

```

17: How to run a method which is failed in testng?

First refresh project then in test output folder testng-failed.xml file which u have run.

18: How to mouseover in element using webdriver?

```

Actions a=new Actions(driver);

a.moveToElement(element which u looking for).perform();

```

19: how to handle multiple window in webdriver?

```

String s=dr.getWindowHandle();

Set<String> s1=dr.getWindowHandles();

for(String c:s1)

{

    if(!c.equals(s))

    {

        dr.switchTo().windows(s);

    }

}

```

20: How to get a element from dropdown menu?

```

Select s=new Select(dr.findElement(By.xpath("xpath")));

s.selectByVisibleText();

```

or
s.selectByIndex();
//for size
s.getOption().size();

21: How to right click on the mouse using webDriver?

```
Actions a=new Actions(dr);  
a.contextClick().perform();
```

22: How to get a repository from git hub in your local computer?

```
git clone git@github.com:username/reponame.git
```

23: How to push or update your code in github?

```
git add -A  
git commit -m "comment"  
git pull  
git push
```

24: How to configure Jenkins ?

Click manage jenkins-->System configure-->give maven home path-->jdk homepath-->git.exe file ar path
if y want any plugin
click manage jenkins -->manage plugin-->search let say github for git plugin-->install

25:How to create a job?

Click new item-->job name-->source for project (if from git then path for repo)-->build trigger(click any one let say build periodically)-->build post(select command batch line and write command for run the project let say mvn test)-->u can set up email notification--> save

26:How to run parallel test using selenium grid?

Install selenium and testing to Eclipse.
Download (from code.google.com) the **selenium-server-standalone-2.33.0.jar** file (or the newest).
Copy this file to a simple place, for example C:\

Now open command prompt (with administrator privileges).
Go to c:\ and enter the following line to start Selenium Grid:
java -jar selenium-server-standalone-2.33.0.jar -role hub -port 4444

Open a new command prompt window, go to c:\ and enter the following line to register the browser to the Selenium Grid:
java -jar selenium-server-standalone-2.33.0.jar -role node -hub <http://localhost:4444/grid/register> -browser browserName=firefox,maxInstances=3

The *maxInstance* will determine the max number of the browsers. If it is set to 3 than maximum 3 browsers(tests) are able to run parallel.
(If you want to know more about Selenium Grid visit the Selenium site: http://docs.seleniumhq.org/docs/07_selenium_grid.jsp)

Now in Eclipse create a new project, a new package and a new class. Name it TestBase.
To this file create:

- a new RemoteWebDriver,
- to the @BeforeMethod the setUp() function
- to the @AfterMethod the tearDown() function
- getDriver() function

Here is the full code:

```

1 package testNG.Parallel;
2 import java.net.MalformedURLException;
3 import java.net.URL;
4
5 import org.openqa.selenium.WebDriver;
6 import org.openqa.selenium.firefox.FirefoxDriver;
7 import org.openqa.selenium.firefox.FirefoxProfile;
8 import org.openqa.selenium.remote.DesiredCapabilities;
9 import org.openqa.selenium.remote.RemoteWebDriver;
10 import org.testng.annotations.AfterMethod;
11 import org.testng.annotations.BeforeMethod;
12
13 public class TestBase {
14
15     protected ThreadLocal<RemoteWebDriver> threadDriver = null;
16
17     @BeforeMethod
18     public void setUp() throws MalformedURLException {
19
20         threadDriver = new ThreadLocal<RemoteWebDriver>();
21         DesiredCapabilities dc = new DesiredCapabilities();
22         FirefoxProfile fp = new FirefoxProfile();
23         dc.setCapability(FirefoxDriver.PROFILE, fp);
24         dc.setBrowserName(DesiredCapabilities.firefox().getBrowserName());
25         threadDriver.set(new RemoteWebDriver(new URL("http://localhost:4444/wd/hub")
26 , dc));
27     }
28
29     public WebDriver getDriver() {
30         return threadDriver.get();
31     }
32
33     @AfterMethod
34     public void closeBrowser() {
35         getDriver().quit();
36     }
37
38 }
39 //Here is sample testng.xml file for parrallel testr

```

```

<!DOCTYPE suite SYSTEM "http://testng.org/testng-1.0.dtd">
<suite name="Parallel test runs" parallel="tests" thread-count="2">

<test name="T_01">
  <classes>
    <class name="testNG.Parallel.Test01" ></class>
  </classes>
</test>

<test name="T_02">
  <classes>
    <class name="testNG.Parallel.Test02" ></class>
  </classes>
</test>

<test name="T_03">
  <classes>
    <class name="testNG.Parallel.Test03" ></class>
  </classes>
</test>

<test name="T_04">
  <classes>
    <class name="testNG.Parallel.Test04" ></class>
  </classes>
</test>

<test name="T_05">
  <classes>
    <class name="testNG.Parallel.Test05" ></class>
  </classes>
</test>

```

27: What is difference between selenium grid and sauce lab?

Main difference is selenium grid u have to configure yrself in order to run.

but sauce labs is third party tools for run all kind of testing. there is little more benefit than selenium grid.

28: How to get text from any element using webdriver?

```
dr.findElement(By.xpath("")).getText();
```

29: How to get attribute from an element using webdriver?

```
dr.findElement(By.xpath("")).getAttribute("");
```

30: What is unit testing?

To test small portion of code which usually developer use it.

31: How to take snapshot using webdriver?

```

File sf=((TakesScreenshot)dr).getScreenshotAs(OutputType.FILE);
FileUtils.copyFile(sf, new File("/Users/shahidulislam/Desktop/other/shot1.png"),true);

File f=((TakesScreenshot)dr).getScreenshotAs(OutputType.FILE);
FileUtils.copyFile(f, new File("C:\\Users\\bittech\\Desktop\\screen\\shot1.png"), true);

```

32: How to get row or column using xpath?

Using tr and td tag.

33: How to scroll down using webdriver?

```
WebElement ele=dr.findElement(By.xpath("html/body/div[4]/div[2]/div/section/div[16]/figure/a/img"));
Coordinates co=((Locatable)ele).getCoordinates();
co.inViewPort();
```

34: How to get control for keyboard?

```
Keyboard kb=((HasInputDevices)dr).getKeyboard();
kb.sendKeys(Keys.F5);
```

35: What is difference between explicit and implicit wait?

Explicitwait use for particular element like locally which wait untill given time.

webdriverwait and fluentwait are example for explicitwait

implicitwait use for whole ui which wait for upto given time.

```
dr.manage().timeout().implicitWait(10, TimeUnit.SECONDS);
```

36: How to get a text from your webpage?

```
dr.getPageSource().contains("text")
```

37. How to run testng.xml file using command prompt?

```
java -cp "path of class files; testng jar file path" org.testng.TestNG testng.xml
```

```
java -cp ".\bin;..\common_lib\*" org.testng.TestNG testng.xml
```

Qs: 1) What are the annotations used in TestNG ?

@Test, @BeforeSuite, @AfterSuite, @BeforeTest, @AfterTest, @BeforeClass, @AfterClass, @BeforeMethod, @AfterMethod.

38. How do you read data from excel ?

```
FileInputStream fis = new
```

```
FileInputStream("C:\\Users\\bittech\\project\\ExcelSheetRead\\src\\test\\java\\EXCELSHEET.xls");
```

```
//Access the required test data sheet
```

```
HSSFWorkbook wb = new HSSFWorkbook(fis);
```

```
HSSFSheet sheet = wb.getSheet("sheet1");
```

```
for (int count = 1; count <= sheet.getLastRowNum(); count++)
```

```
{
```

```
    HSSFRow row = sheet.getRow(count);
```

```
    String id = row.getCell(0).toString();
```

```
    String userid = row.getCell(1).toString();
```

```
    String password = row.getCell(2).toString();
```

```
    if (id.equals("2.0"))
```

```
    {
```

```
        System.out.println("hellos");
```

```
        dr.findElement(By.id("email")).sendKeys(userid);
```

```
        dr.findElement(By.id("pass")).sendKeys(password);
```

```

dr.findElement(By.id("u_0_n")).click();
break;

}

```

39. What is the use of xpath ?

It is used to find the WebElement in web page. It is very useful to identify the dynamic web elements.

40. What are different types of locators ?

There are 8 types of locators and all are the static methods of the By class.

`By.id()`, `By.name()`, `By.tagName()`, `By.className()`, `By.linkText()`, `By.partialLinkText()`, `By.xpath`, `By.cssSelector()`.

41. What is the difference between Assert and Verify?

Assert- it is used to verify the result. If the test case fail then it will stop the execution of the test case there itself and move the control to other test case.

Verify- it is also used to verify the result. If the test case fail then it will not stop the execution of that test case.

42. What is the alternate way to click on login button?

Use `submit()` method but it can be used only when attribute `type=submit`.

43. How do you verify if the checkbox/radio is checked or not ?

We can use `isSelected()` method.

Syntax: `driver.findElement(By.xpath("xpath of the checkbox/radio button")).isSelected();`

If the return value of this method is true then it is checked else it is not

44. How do you handle alert pop-up ?

To handle alert pop-ups, we need to 1st switch control to alert pop-ups then click on ok or cancel then move control back to main page.

Syntax:

```

1 String mainPage = driver.getWindowHandle();
2
3 Alert alt = driver.switchTo().alert(); // to move control to alert popup
4
5 alt.accept(); // to click on ok.
6
7 alt.dismiss(); // to click on cancel.
8
9 //Then move the control back to main web page-
10
11 driver.switchTo().window(mainPage); to switch back to main page.

```

45. How do you launch IE/chrome browser?

Before launching IE or Chrome browser we need to set the System property.
webdriver.ie

1	//To open IE browser
2	
3	System.setProperty("webdriver.ie.driver","path of the iedriver.exe file ");
4	
5	WebDriver driver = new InternetExplorerDriver();

1	//To open Chrome browser System.setProperty("webdriver.chrome.driver","path of the chromeDriver.exe file ");
2	
3	WebDriver driver = new ChromeDriver();

46. How to perform right click using WebDriver?

Use Actions class

1	Actions act = new Actions(driver); // where driver is WebDriver type
2	
3	act.moveToElement(webElement).perform();//mouseover
4	
5	act.contextClick().perform();//for right click

47. How do perform drag and drop using WebDriver?

Use Action class

1	Actions act = new Actions(driver);
2	
3	WebElement source = driver.findElement(By.xpath(" -----")); //source ele which you want to drag
4	
5	WebElement target = driver.findElement(By.xpath(" -----")); //target where you want to drop
6	
7	act.dragAndDrop(source,target).perform();

48. Give the example for method overload in WebDriver.

Frame(string), frame(int), frame(WebElement).

49. How do you upload a file?

To upload a file we can use sendKeys() method.

1	driver.findElement(By.xpath("input field")).sendKeys("path of the file which u want to upload");
---	--

50. How do you click on a menu item in a drop down menu?

If that menu has been created by using select tag then we can use the methods selectByValue() or selectByIndex() or selectByVisibleText(). These are the methods of the Select class.

If the menu has not been created by using the select tag then we can simply find the xpath of that element and click on that to select.

51. How do you simulate browser back and forward ?

```
1 driver.navigate().back();
2
3 driver.navigate().forward();
```

52. How do you get the current page URL ?

```
1 driver.getCurrentUrl();
```

53. What is the difference between findElement and findElements?

Both methods are abstract method of WebDriver interface and used to find the WebElement in a web page.

findElement() – it used to find the one web element. It return only one WebElement type.

findElements()- it used to find more than one web element. It return List of WebElements.

54. How do you achieve synchronization in WebDriver ?

We can use implicit wait.

Syntax- driver.manage().timeouts().implicitlyWait(10,TimeUnit.SECONDS);

Here it will wait for 10sec if while execution driver did not find the element in the page immediately. This code will attach with each and every line of the script automatically. It is not required to write every time. Just write it once after opening the browser.

55. Write the code for Reading and Writing to Excel through Selenium ?

```
1 FileInputStream fis = new FileInputStream("path of excel file");
2
3 Workbook wb = WorkbookFactory.create(fis);
4
5 Sheet s = wb.getSheet("sheetName");
6
7 String value = s.getRow(rowNum).getCell(cellNum).getStringCellValue(); // read data
8
9 s.getRow(rowNum).getCell(cellNum).setCellValue("value to be set"); //write data
10
11 FileOutputStream fos = new FileOutputStream("path of file");
12
13 wb.write(fos); //save file
```

56. How to get typed text from a textbox ?

Use getAttribute("value") method by passing arg as value.

```
1 String typedText = driver.findElement(By.xpath("xpath of box")).getAttribute("value");
  sendkeys("");
```

57. What are the different exceptions you got when working with WebDriver ?

ElementNotVisibleException, ElementNotSelectableException, NoAlertPresentException, NoSuchAttributeException, NoSuchWindowException, TimeoutException, WebDriverException etc.

58. What are the languages supported by WebDriver ?

Python, Ruby, C# and Java are all supported directly by the development team. There are also webdriver implementations for PHP and Perl.

59. How do you clear the contents of a textbox in selenium ?

Use clear() method.

```
driver.findElement(By.xpath("xpath of box")).clear();
```

60. What is a Framework ?

A framework is set of automation guidelines which help in

Maintaining consistency of Testing, Improves test structuring, Minimum usage of code, Less Maintenance of code, Improve re-usability, Non Technical testers can be involved in code, Training period of using the tool can be reduced, Involves Data wherever appropriate.

There are five types of framework used in software automation testing:

1-Data Driven Automation Framework

2-Method Driven Automation Framework

3-Modular Automation Framework

4-Keyword Driven Automation Framework

5-Hybrid Automation Framework , its basically combination of different frameworks. (1+2+3).

61. What are the prerequisites to run selenium webdriver?

JDK, Eclipse, WebDriver(selenium standalone jar file), browser, application to be tested.

62. What are the advantages of selenium webdriver?

- a) It supports with most of the browsers like Firefox, IE, Chrome, Safari, Opera etc.
- b) It supports with most of the language like Java, Python, Ruby, C# etc.
- b) Doesn't require to start server before executing the test script.
- c) It has actual core API which has binding in a range of languages.
- d) It supports of moving mouse cursors.
- e) It support to test iphone/Android applications.

62. What is WebDriverBackedSelenium ?

WebDriverBackedSelenium is a kind of class name where we can create an object for it as below:

```
Selenium wbdriver= new WebDriverBackedSelenium(WebDriver object name, "URL path of website")
```

The main use of this is when we want to write code using both WebDriver and Selenium RC , we must use above created object to use selenium commands.

63. How to invoke an application in webdriver ?

```
1 driver.get("url"); or driver.navigate().to("url");
```

64. What is Selenium Grid ?

Selenium-Grid allows you to run your tests on different machines against different browsers in parallel. That is, running multiple tests at the same time against different machines, different browsers and operating systems. Essentially, Selenium-Grid support distributed test execution. It allows for running your tests in a distributed test execution environment.

65. How to get the number of frames on a page ?

```
1 List <WebElement> framesList = driver.findElements(By.xpath("//iframe"));
2
3 int numOfFrames = frameList.size();
```

66. How do you simulate scroll down action ?

Use java script to scroll down-

http://www.flipkart.com/womens-clothing/pr?sid=2oq,c1r&otracker=hp_nmenu_sub_women_1_View%20all

```
1 JavascriptExecutor jsx = (JavascriptExecutor)driver;
2
3 jsx.executeScript("window.scrollTo(0,4500)", ""); //scroll down, value 4500 you can change as per your req
4
5 jsx.executeScript("window.scrollTo(450,0)", ""); //scroll up
6
7 ex-
8
9 public class ScrollDown {
10
11     public static void main(String[] args) throws InterruptedException {
12
13         WebDriver driver = new FirefoxDriver();
14
15         driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);
16
17         driver.get("http://www.flipkart.com/womens-clothing/pr?sid=2oq,c1r&otracker=hp_nmenu_sub_women_1_View%20all");
18
19         driver.manage().window().maximize();
20
21         JavascriptExecutor jsx = (JavascriptExecutor)driver;
22
23         jsx.executeScript("window.scrollTo(0,4500)", ""); //scroll down
24
25         Thread.sleep(3000);
26
27         jsx.executeScript("window.scrollTo(450,0)", ""); //scroll up
28
29     }
30
31 }
```

66. Which is the package which is to be imported while working with WebDriver ?

org.openqa.selenium

67. How to check if an element is visible on the web page ?

use isDisplayed() method. The return type of the method is boolean. So if it return true then element is visible else not visible.

1	<code>driver.findElement(By.xpath("xpath of elemnt")).isDisplayed();</code>
---	---

68. How to check if a button is enabled on the page ?

Use isEnabled() method. The return type of the method is boolean. So if it return true then button is enabled else not enabled.

1	<code>driver.findElement(By.xpath("xpath of button")).isEnabled();</code>
---	---

69. How to check if a text is highlighted on the page ?

To identify weather color for a field is different or not:

```
String color = driver.findElement(By.xpath("//a[text()='Shop']")).getCssValue("color");
String bgcolor = driver.findElement(By.xpath("//a[text()='Shop']")).getCssValue("background-color");
System.out.println(color);
System.out.println(bgcolor);
```

Here if both color and back color different then that means that element is in different color.

70. How to get the title of the page ?

Use getTitle() method.

1	<code>Syntax- driver.getTitle();</code>
---	---

71. How do u get the width of the textbox ?

1	<code>driver.findElement(By.xpath("xpath of textbox ")).getSize().getWidth();</code>
2	
3	<code>driver.findElement(By.xpath("xpath of textbox ")).getSize().getHeight();</code>

72. How to check whether a text is underlined or not ?

https://www.google.co.in/?gfe_rd=ctrl&ei=bXAwU8jYN4W6iAf8zIDgDA&gws_rd=cr

```

1  Ans- Identify by getCssValue("border-bottom") or sometime getCssValue("text-decoration") method if the
2
3  cssValue is 'underline' for that WebElement or not.
4
5  ex- This is for when moving cursor over element that is going to be underlined or not-
6
7  public class UnderLine {
8
9  public static void main(String[] args) {
10
11  WebDriver driver = new FirefoxDriver();
12
13  driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);
14
15  driver.get("https://www.google.co.in/?gfe_rd=ctrl&ei=bXAwU8jYN4W6iAf8zIDgDA&gws_rd=cr");
16
17  String cssValue= driver.findElement(By.xpath("//a[text()='Hindi']")).getCssValue("text-decoration");
18
19  System.out.println("value"+cssValue);
20
21  Actions act = new Actions(driver);
22
23  act.moveToElement(driver.findElement(By.xpath("//a[text()='Hindi']"))).perform();
24
25  String cssValue1= driver.findElement(By.xpath("//a[text()='Hindi']")).getCssValue("text-decoration");
26
27  System.out.println("value over"+cssValue1);
28
29  driver.close();
30
31  }
32
33  }

```

73. How to hover the mouse on an element ?

```

1  Actions act = new Actions(driver);
2
3  act.moveToElement(webelement); //webelement on which you want to move cursor

```

74. What is the use of getOptions() method ?

getOptions() is used to get the selected option from the dropdown list.

75. What is the use of deSelectAll() method ?

It is used to deselect all the options which have been selected from the dropdown list.

76. Is WebDriver an interface or a class ?

WebDriver is an Interface.

77. FirefoxDriver is class or an interface and from where is it inherited ?

FirefoxDriver is a class. It implements all the methods of WebDriver interface.

78. Which is the super interface of webdriver ?

SearchContext.

79. What is the difference b/w close() and quit()?

close() – it will close the browser where the control is.

quit() – it will close all the browsers opened by WebDriver.

80. Can we enter text without using sendKeys() ?

Yes we can enter text without using sendKeys() method. We have to use combination of javascript and wrapper classes with WebDriver extension class, check the below code-

```
1 public static void setAttribute(WebElement element, String attributeName, String value)
2
3 {
4     WrapsDriver wrappedElement = (WrapsDriver) element;
5     JavascriptExecutor driver = (JavascriptExecutor)wrappedElement.getWrappedDriver();
6     driver.executeScript("arguments[0].setAttribute(arguments[1],arguments[2])", element, attributeName, value);
7
8 }
9
10
11
```

call the above method in the test script and pass the text field attribute and pass the text you want to enter.

82. There is a scenario whenever “Assert.assertEquals()” function fails automatically it has to take screenshot. How can you achieve this ?

By using EventFiringWebDriver.

```
1 Syntax-EventFiringWebDriver eDriver=new EventFiringWebDriver(driver);
2
3 File srcFile = eDriver.getScreenshotAs(OutputType.FILE);
4
5 FileUtils.copyFile(srcFile, new File(imgPath));
```

83. How do you handle https website in selenium ?

Ans- By changing the setting of FirefoxProfile.

```
1 Syntax-public class HTTPSSecuredConnection {
2
3     public static void main(String[] args){
4
5         FirefoxProfile profile = new FirefoxProfile();
6         profile.setAcceptUntrustedCertificates(false);
7         WebDriver driver = new FirefoxDriver(profile);
8         driver.get("url");
9     }
10 }
11
12
13
14
15
```

84. How to login into any site if its showing any authentication popup for user name and pass ?

pass the username and password with url.

<http://username:password@url><http://creyate:jamesbond007@alpha.creyate.com>

1	Syntax- http://username:password@url
2	
3	ex- http://creyate:jamesbond007@alpha.creyate.com

85. What is the name of Headless browser.

HtmlUnitDriver.

86. Open a browser in memory means whenever it will try to open a browser the browser page must not come and can perform the operation internally.

use HtmlUnitDriver

EX: <https://www.google.co.in/>

1	public class Memory {
2	
3	public static void main(String[] args) {
4	
5	HtmlUnitDriver driver = new HtmlUnitDriver(true);
6	
7	driver.setJavascriptEnabled(false);
8	
9	driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);
10	
11	driver.get("https://www.google.co.in/");
12	
13	System.out.println(driver.getTitle());
14	
15	}
16	
17	}

86. What are the benefits of using TestNG ?

Ans-

- a) TestNG allows us to execute of test cases based on group.
- b) In TestNG Annotations are easy to understand.
- c) Parallel execution of Selenium test cases is possible in TestNG.
- d) Three kinds of report generated
- e) Order of execution can be changed
- f) Failed test cases can be executed
- g) Without having main function we can execute the test method.
- h) An xml file can be generated to execute the entire test suite. In that xml file we can rearrange our execution order and we can also skip the execution of particular test case.



87. How do you send ENTER/TAB keys in WebDriver ?

Ans- use click() or submit() [submit() can be used only when type='submit']] method for ENTER. Or use Actions class to press keys.

For Enter-

1	act.sendKeys(Keys.RETURN);
---	----------------------------

For Tab-

1	act.sendKeys(Keys.ENTER);
---	---------------------------

where act is Actions class type. (Actions act = new Actions(driver);)

88. What is Datadriven framework & Keyword Driven ?

Ans- **Datadriven framework-** In this Framework , while Test case logic resides in Test Scripts, the Test Data is separated and kept outside the Test Scripts. Test Data is read from the external files (Excel File) and are loaded into the variables inside the Test Script. Variables are used both for Input values and for Verification values.

Keyword Driven framework- The Keyword-Driven or Table-Driven framework requires the development of data tables and keywords, independent of the test automation tool used to execute them . Tests can be designed with or without the Application. In a keyword-driven test, the functionality of the application-under-test is documented in a table as well as in step-by-step instructions for each test.

89. While explaining the framework, what are points which should be covered ?

Ans-

- a) What is the frame work.
- b) Which frame work you are using.
- c) Why This Frame work.
- d) Architecture.
- e) Explanation of every component of frame work.
- f) Process followed in frame work.
- g) How & when u execute the frame work.
- h) Code (u must write code and explain).
- i) Result and reporting .
- j) You should be able to explain it for 20 Minutes.

90. How to switch back from a frame ?

Ans- use method defaultContent().

1	Syntax – driver.switchTo().defaultContent();
---	--

91. How to type text in a new line inside a text area ?

Ans- Use \n for new line.

1	ex- webelement.sendKeys("Sanjay_Line1.\n Sanjay_Line2.");
---	---

it will type in text box as-

Sanjay_Line1.

Sanjay_Line2.

92.What is the use of Autolt tool ?

Ans- Some times while doing testing with selenium, we get stuck by some interruptions like a window based pop up. But selenium fails to handle this as it has support for only web based application. To overcome this problem we need to use AutoIT along with selenium script. AutoIT is a third party tool to handle window based applications. The scripting language used is in VBScript.

93. How to perform double click using WebDriver ?

Ans- use doubleClick() method.

```
1 Syntax- Actions act = new Actions(driver);
2
3 act.doubleClick(webelement);
```

94. How to press Shift+Tab ?

```
1 String press = Keys.chord(Keys.SHIFT,Keys.ENTER);
2
3 webelement.sendKeys(press);
```

95. What is the difference b/w getWindowHandles() and getWindowHandle() ?

Ans- getWindowHandles()- is used to get the address of all the open browser and its return type is Iterator<String>.

getWindowHandle()- is used to get the address of the current browser where the control is and return type is String.

96. How do you accommodate project specific methods in your framework ?

Ans- 1st go through all the manual test cases and identify the steps which are repeating. Note down such steps and make them as methods and write into ProjectSpecificLibrary.

97. What are the browsers supported by Selenium IDE ?

Ans- Mozilla FireFox only. Its an Firefox add on.

98.What are the limitations of Selenium IDE ?

Ans-

- a) It does not supports looping or conditional statements. Tester has to use native languages to write logic in the test case.
- b) It does not supports test reporting, you have to use selenium RC with some external reporting plugin like TestNG or JUnit to get test execution report.
- c) Error handling is also not supported depending on the native language for this.
- d) Only support in Mozilla FireFox only. Its an Firefox add on.

99. How to check all checkboxes in a page ?

Ans-

```
1 List<WebElement> chkBox = driver.findElements(By.xpath("//htmltag[@attbute='checkbox']"));
2
3 for(int i=0; i<chkBox.size(); i++){
4
5     chkBox.get(i).click();
6
7 }
```

100. Count the number of links in a page.

Ans- use the locator By.tagName and find the elements for the tag //a then use loop to count the number of elements found.

```
1 Syntax- int count = 0;
2
3 List<WebElement> link = driver.findElements(By.tagName("a"));
4
5 System.out.println(link.size()); // this will print the number of links in a page.
```

101. What is Selenium WebDriver ?

Ans- WebDriver is the name of the key interface against which tests should be written in Java. All the methods of WebDriver have been implemented by RemoteWebDriver.

102. What is Selenium IDE ?

Ans- Selenium IDE is a complete integrated development environment (IDE) for Selenium tests. It is implemented as a Firefox Add-On, and allows recording, editing, and debugging tests. It was previously known as Selenium Recorder.

Scripts may be automatically recorded and edited manually providing autocompletion support and the ability to move commands around quickly.

Scripts are recorded in Selenese, a special test scripting language for Selenium. Selenese provides commands for performing actions in a browser (click a link, select an option), and for retrieving data from the resulting pages.

103. What are the flavors of selenium ?

Ans- selenium IDE, selenium RC, Selenium WebDriver and Selenium Grid.

104. What is selenium ?

Ans- Its an open source Web Automation Tool. It supports all types of web browsers. Despite being open source its actively developed and supported.

105. Advantages of selenium over other tools ?

Ans-

- a) Its free of cost,
- b) it supports many languages like Java, C#, Ruby, Python etc.,
- c) it allows simple and powerful DOM-level testing etc.

106. What is main difference between RC and webdriver ?

Ans- Selenium RC injects javascript function into browsers when the web page is loaded.

Selenium WebDriver drives the browser using browser's built-in support.

107. Why you choose webdriver over RC ?

Ans-

- a) Native automation faster and a little less prone to error and browser configuration,
- b) Does not Requires Selenium-RC Server to be running
- c) Access to headless HTMLUnitDriver can allow really fast tests
- d) Great API etc.

109. How will you handle dynamic elements ?

Ans- By writing relative xpath.

110. What is the difference between @BeforeMethod and @BeforeClass ?

Ans- @BeforeMethod- this will execute before every @Test method.

@BeforeClass- this will execute before every class.

111. What are the different attributes for @Test annotation ?

Ans- alwaysRun, dataProvider, dependsOnMethods, enabled, expectedExceptions, timeOut etc.

1	ex- @Test(expectedExceptions = ArithmeticException.class)
2	
3	@Test(timeOut = 2000)

112. Can we run group of test cases using TestNG ?

Ans- yes.

113. When you run your automation and if there is any error, how can you tell that if it's a client or server error ?

Ans: Using Network tab of the browser. Request and response header shows where is the error. Also system will throw an error EX: 404, 506 etc which represents the error type. There are also 3rd party tool we can use like **Fiddler**.

113. Tell me some http status code

Ans: check this link

https://en.wikipedia.org/wiki/List_of_HTTP_status_codes

