

① How to open a browser?

→ By using `driver.get("url")` or `driver.navigateTo("url")`

② Difference between WebDriver & WebElement?

→ WebDriver

WebElement

① Perform the action on the browser

① Perform the action on element which is present on web page

② Different Methods:-

② Different Methods

① `get()`

① `isSelected()`

② `navigateTo()`

② `isDisplayed()`

③ `setPosition()`

③ `isEnabled()`

④ `setSize()`

④ `sendKeys()`

⑤ `maximize()`

⑤ `click()`

⑥ `getTitle()`

⑥ `clear()`

⑦ `getCurrentUrl()`

⑦ `getText()`

⑧ `close()`

⑨ `quit()`

③ Difference between `get()` and `navigateTo()`

→ `get()`

`NavigateTo()`

① `get()` method is used only to open the browser

① `NavigateTo` is also used to open the browser but also it perform different action like

① `Navigate.forward()`

② `Navigate.Refresh()`

③ `Navigate.backward()`

④ Difference between `close()` & `quit()`

`quit()`

→ `close()`

① `close()` method is used to close the current browser

① `quit()` method used to close the all tabs

⑤ How to maximize the browser?

→ By using the maximize() method  
syntax -

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

⑥ Can you minimize the browser?

→ No, we can not minimize the browser

⑦ Component of selenium

→ There are four component of selenium  
selenium IDE, RC, WebDriver & grid

⑧ How to select radio and checkbox

→ By using click() method we perform the action on radio button and on checkbox.

- Return type of radio button is WebElement

syntax -

`WebElement radio = driver.findElement(By.xpath("//input type='radio'"));  
radio.click();`

- To perform different action

① isDisplayed

② isEnabled

③ isSelected → Return type boolean

⑨ How to take a text present in the web page?

→ By using getText() method we can get the text from the webpage.



⑩ How to get the page title?

- - By using getTitle() method we get the page title.  
- Return of title is string.

Syntax -

```
String s = driver.getTitle();
```

```
String d1 = "google";
```

```
if (s.equals(d1))
```

```
{ sysout("pass");
```

```
} else
```

```
{ sysout("fail");
```

```
}
```

} verify

To getTitle()

```
String str = driver.getTitle();
```

```
{ sysout (str);
```

```
}
```

⑪ How to enter the value in input field?

- - By using sendkey() we enter the value

- 1st we have to find the xpath of that particular field

⑫ What is isSelected, isDisplayed, isEnabled, findElement, getWindowHandle, getWindowHandler, sendkey, getText, click, setAttribute, setPosition

→ ① isSelected() -

- isSelected() Method used to verify the web element is selected or not

- Probably used with radio buttons, dropdowns and checkboxes, **boolean return type**

② isDisplayed() -

This method check the presence of all kinds of web element available

### ⑪ Set Position :-

- used to set position of browser

syntax -

Point Position  $p = \text{new Position}(100, 200);$

driver.setPosition(p);

manage().window().setPosition(p);

⑬

Functions of listbox, selectByIndex, selectByValue, selectByVisibleText, getOptions, isMultiple, getAllSelectedOptions

→

### ① listBox

#### ② selectByIndex() :-

- used to select the list options using the specified index

- index start with 0

syntax -

WebElement month = driver.findElement(By.xpath("exp"));

select s = new select(month);

s.selectByIndex(4);

#### ③ selectByValue :-

- used to select the list option using the specified value

- store in string

syntax:-

WebElement month = driver.findElement(By.xpath("exp"));

select s = new select(month);

s.selectByValue("march");

#### ④ selectByVisibleText :-

- used to select the list option from the drop down field



```
WebElement month = Driver.findElement(By.xpath("exp"))
select m s = new select(month);
s.selectByVisibleText(s);
```

⑤ `getOptions()` :-

- Return all options belongs to your select tag
- Find the value in sequence

eg - we have array in java then array display the value from index 0 to end of array.

⑥ `isMultiple()` :-

- command is used to verify whether the specified select element support selecting multiple options at the same time
- it return true when it support selecting multiple options else return fail

⑦ `getAllSelectedOptions()` :- *list of WebElement*

- used to retrieve all the list options that are currently selected in the multi-selection box field

⑭ How to handle customized list box?

→ Handle customized list box by using the `Action` and `key` class

```
Action a = new Action();
```

⑮ Is there any alternate way to `sendKeys()` and `click()` method?

→ for `click()` alternate `submit()`  
for `sendKeys()` alternate method `JavaScript`

Page No.   
 Date:   
 (16) Different type of wait in selenium?

→ Three types of waits used in selenium

① Implicit Wait :-

↳ will tell to web driver to wait for a certain amount of a time before it throws the "No such element exception"

↳ It applicable for all the pages / element

Syntax - It will save the execution time.

`driverManager().getDriver().get().implicitlyWait(10, TimeUnit.SECONDS);`

② Explicit Wait :-

↳ applied only for specified elements

↳ time & condition parameter used

`WebDriver wait = new WebDriverWait(driver, TimeOut);`

③ Fluent Wait :-

↳ It perform in the loop to stop the time

↳ time, condition & frequency parameters are used

(17) What are the popup? types of popup's? How to handle the Alert popup and child browser popup?

→ Popup are the small and separate window which will display when you perform the action on elements which are present on web page.

Types of popups :-

① Hidden Division Popups

② Alert Popup

③ Child Browser popup

④ Authentication Popup

⑤ File upload

⑥ File download



handle alert Pop up -

- we can not inspect element present in pop up
- drag and drop action can perform
- This Pop up will contain "ok", "cancel" and "text"
- also contain (?) + (!) symbol

① First we need to switch the selenium focus from main page to alert popup

Syntax -

driver.switchTo.alert();

↓  
interface

② Alert contain ~~stat~~ abstract method like -

① Accept() → To click on "ok" button

② dismiss() → To click on "cancel" button

③ getText() → To get text from alert popup

handle Child Browser Pop up :-

- we can perform both inspect and drag & drop operations
- this pop up will contain address field, maximize, minimize & close option

Handle 1st we need to switch the selenium focus from main page to child browser page

Syntax -

driver.switchTo.window(string id);

② If multiple child browser displayed then to handle child browser popup we need to identify address field or id or ids which is unique

Syntax -

set<string> ids = driver.getWindowSet();

string id = ids.get(index);

(19) Write the code for screenshot

```
→ driver.get ("www.google.com");  
File source = ((Takescreenshot) driver).getScreenshotAs (  
    outputFile.toFile());  
File destination = new File ("path of folder \\img1.jpg");  
FileHandler.copy (source, destination);
```

(20) How to fetch the data from excel sheet

- - First configure the apache poi jar file in our project
- create an excel sheet with some data and store it anywhere in any drive
- Create an object of InputStream class with the external sheet path as input



`FileInputStream file = new FileInputStream("path");`

- `FileInputStream` <sup>class</sup> `file` <sup>object</sup> `path` <sup>excel sheet path</sup>
- To open the excel sheet we need to use static method, which is present inside the `WorkbookFactory` class

`String value = WorkbookFactory.create(file).getSheet("Sheet1").getRow(0).getCell(0).getStringCellValue();`  
`System.out.println(value);`

↑  
excel sheet name

- To open the specific sheet we need `getSheet()` method
- To identify row we need to use `getRow()` method
- To identify ~~row~~ column we need to use `getCell()` method
- To fetch the string value we need to use the `getStringCellValue()` method
- To fetch the numeric value we `getNumericCellValue()` method

## ② How to handle the iframe?

(displaying the webpage as the part of another webpage called iframe)

- ① To handle the iframe we need to selenium focus from main page to frame by using
- `driver.switchTo().frame(string, value, index)`
- Switch the frame by using particular string, value and index

- ② Once action is performed on the component <sup>selenium</sup> present in iframe selenium will not navigate by ~~using~~ default to main page

- ③ To navigate from iframe to main page we need to use method like parent frame or default contain
- `driver.switchTo().parentFrame()` → immediate parent frame
- `driver.switchTo().defaultContent()` → any child to main page

## ②② Different Annotations and keywords :-

→ Different Annotations :-

① BeforeClass -

used for execution of few test methods before execution of test class

② AfterClass -

used for execution of few test methods After execution of test class

③ BeforeMethod -

used for execution of few test methods before execution every test method

④ AfterMethod -

used for execution of few test methods after execution of every test method

⑤ Test

used for execution of test method or test case

## Different keyword for annotations :-

① Priority -

- To change the execution method we use priority
- It by default 0, positive integer, negative integer, duplicate
- Priority can't be decimal or variable.

@ invocationCount -

- some time some method need to execute multiple time then we use invocationCount



### ③ enabled :-

If test class can contain multiple method and we need to skip one of test method execution we need to use "enabled = false";

### ④ Timeout :-

If test class contain multiple test methods to if one of the test method is time consuming to execute the TestNG by default fail that test method and execute other test method which can be using Timeout method keyword

### ⑤ dependsOn :-

If one testMethod is depend on the another method then we need to use dependon method keyword

Q23) Which Framework you currently working?

→ Data driven Framework

Q24) Role and Responsibilities of test engineer?

→ Find the locators

- developing POM class

- Envolve in execution

- sending the Reports

Q What are the different xpath functions?

→ Xpath Functions -

① contains()

② start-with()

③ text()

Q Action and key class in selenium

→ Action class - ability to handle various type of keyboard and mouse event

operations like drag & drop or clicking on multiple elements

different function in action class -

act.moveToElement().perform()

act.click().perform()

Functions for key class -

key.Arow-up().perform()

key.Arow-down().perform()

key.Enter

drag & drop function -

present in action class with parameter source & destination



(27) What are the limitations of selenium and in which case we can not use the selenium?

- 
- ① In selenium we can not upload and download the file
  - ② we can't automate the captcha
  - ③ can't automate the barcode
  - ④ ad-hoc test cases can't be automated

(28) Advantages of TestNG?

- 
- ① Ability to produce HTML Reports of execution.
  - ② Annotations are available.
  - ③ Test cases can be grouped or prioritized more easily.
  - ④ Parallel testing possible
  - ⑤ Generate log files
  - ⑥ execute fail test cases

(29) Have you created any framework?

→ No, i didn't get a chance to involve in it

(30) What is Maven? What is POM.xml?

- 
- Maven is Project Management tool
  - Maven is used to manage dependancies (Maintain right version of jar's)

POM — Project Object Model is fundamental unit of work in maven, it is an xml file that contains the information about the project and configuration details

Q3) What is Jenkins?

- Jenkins is open source continuous integration tool.
- It is cross platform can be used on windows, linux, mac os.
  - Jenkins main use is to schedule a particular job and monitor any job or application status.
  - It forces pre-configured actions when a particular step occurs.

\* Features -

- ① It generates a list of all changes done in the repository.
- ② can be configured to email.
- ③ we can save test reports and execution history.
- ④ Jenkins supports maven for building and testing a project in CI.

Q32) How to execute failed test cases?

- After running the test project, click on refresh.
- A folder will be generated named "test-output" folder. Inside "test-output" folder, you could find "testing-failed.xml".
  - Run "testing-failed.xml" to execute the failed test cases again.

Q33) How to generate the report in your framework?

- After execution of test script, simply refresh the project. It will automatically create the output folder and generate the report in it.

Q34) What is TestNG listener?

- It is an interface.
- It is used to customise test reports (fail test case screenshot used).



35) Different type of exceptions in selenium?

- 
- ① WebDriver Exception :- Url in not proper way.
  - ② Unreachable browser Exception :- when we interrupt the browser while running the test script we will get unreachable exception.
  - ③ Unhandled alert exception → alert popup display and perform the action on browser.
  - ④ No alert present Exception :- without alert pop up we perform on other pop up.
  - ⑤ Unexpected tagName exception :-
  - ⑥ Not connected exception :- when selenium jar file unable to connect with browser then we will get not connected exception.
  - ⑦ Unsupported operation exception :-
  - ⑧ No such a element exception :- when HTML code wrong to identify element / because of synchronization.

36) What is object repository?

- Used to store element locator values in centralized location instead of hard coding them within the script.
- We do create a property file (.properties) to store all the element locators and these property files act as an object repository in selenium web-driver.

37) Advantages of POM?

- 
- ① It makes easy in maintaining the code.
  - ② Makes code readable.
  - ③ Makes the code reusable.
  - ④ The code becomes less and optimised.

(37) Difference between soft assert and hard assert?

→ Soft Assert :-

- To overcome the drawback of assert class we need to use soft assert.
- soft assert collects errors during @Test
- does not throw an exception when assert throws fail

Hard Assert :-

- To reduce the length of test script we use hard assert

(38) Where do you store your test data?

→ Excel sheet

(39) Where do you store your login credentials?

→ Property File

(40) What is headless browser?

- Headless browser is a browser simulation program that does not have a user interface.
- These programs operate like any other browser, but do not display any UI.

(41) Latest versions of selenium?

① Chrome → 76.03809

② JIRA → 9.8

③ HPALM → 12.55

④ selenium Webdriver → 3.14

⑤ SQL Server → 2014

⑥ SOAP UI → 2.3.2

⑦ JAVA → 11.0.2

⑧ Postman → 7.8

⑨ Eclipse → Photon