Selenium Interview Questions and Answers

1.What is automation testing and benefits?

- Test automation is a process that makes use of automation testing tools to execute pre-scripted tests on applications, then compares the test results to the expected behavior and reports it to the testers.

Benefits:

- It executes tasks automatically.
- Increases effectiveness, efficiency and coverage of the software testing.

2.Why should Selenium be selected as a test tool?

- Selenium is an open source automation testing tool which is used to test web applications.
- Selenium testing tool consists of different set of tools in it like Selenium WebDriver, Selenium RC, Selenium IDE
- which has different features.

3.What is Selenium? What are the different Selenium components?

- Selenium is a portable software testing framework for web application.
- Selenium provides a playback tool for authorising tests without need to learn a test scripting languages.

Different selenium components:

- Selenium IDE
- Selenium RC
- Selenium Webdriver

- Selenium Grid

4.What is the difference between Selenium RC and WebDriver?

Selenium RC:

- It does not make direct calls to the browser.There will be an intermediate server.

Selenium Webdriver:

- Faster
- Selenium Webdriver directly communicates with the browser.

5.What is the latest version of Selenium jar file and how you will configure selenium jar file with eclipse?

Latest version:

- 3.141.59
- Alpha version of Selenium 4 released.
- Selenium 4 is yet to get released officially.

Configure jar file:

- After including Selenium jar into our project,right click the jar and give "add to build path" for configuration.

6.Is Google Chrome supported by Selenium IDE?

- No,Google Chrome is not be supported by Selenium IDE.It supports only mozilla extentions.

7.List some of the browsers supported by selenium

- Firefox browser

- Chrome browser

- Internet Explorer

- safari browser

- Opera browser etc

8.What is the Classname for the below browsers?

Browser	Class
1. Firefox browser	FirefoxDriver
2. Chrome browser	ChromeDriver
3. IE	InternetExplorerDriver
4. Safari browser	SafariDriver
5. Opera browser	OperaDriver

9.What is a WebDriver ? Whether WebDriver is class or interface?

- Webdriver is a web automation framework that allows you to execute your tests againts

  different browser,not just firefox.

- Webdriver also enables you to use a programming language in creating your test script.

- Webdriver is a interface.

10.What is the method name to launch the url?

- get() method is used to lanuch the given url.

11.What are the method names are available to get the title and url of the webpage?

- getTitle()- used to get the title of the webpage.

- getCurrentUrl()-used to get the current url of the webpage.

12.What is the difference between close() and quit()?

close():

- It will close the current window only.

quit():

- It will close all the opened windows and browser will also be closed.

13. What are the methods available in WebDriver?

- close()
- findElement()
- findElements()
- get()
- getTitle()
- getCurrentUrl()
- manage()
- quit()
- switchTo()

14. What is the use of WebDriver?

- It is mainly used for providing the connection between the browser and local system.
- It acts as a bridge.

15. What are the locators available in selenium?

- id
- classname
- name
- Xpath
- CSSselector
- linkText
- partialLinkText
- tagname

16. Which locator is fastest in selenium?

- id is the fastest locator in selenium.

17. How will you find the locators in selenium? write a code for it?

- We can find the locator by using findElement() and findElements() methods.

Code

----

driverrefname.findElement(By.locator("values"));

18.Difference between findElement and FindElements?

findElement

- It is used to find only one webElement.
- If no element is found it throws NoSuchElementException.

findElements

- It is used to find a list of webElements.
- findElements will return an empty list when no elements found

19.What is the return type of findElement and findElements?

- findElement - WebElement
- findElements - List<WebElement>

20.In which class all the locator methods are available?

*By is an abstract class in which all the locator methods are available.

21.What is the method used to insert value in a textbox?

- sendKeys() method is used to insert value into a textbox.

22.Write a code for inserting value in textbox?

- WebElementRefname.sendKeys("values to be inserted");

23.When multiple WebElements has same Xpath,how we can find it uniquely?

*When multiple WebElements has same Xpath,we can give index for that to uniquely locate a WebElement.

Index starts from 1 to n

*syntax: (xpath)[index]

24.How will you click a button in webpage?

*By using click() method we can click a button in webpage.

25.Whether WebElement is a interface or class?

*WebElement is an interface.

26.What is mean by System.setProperty?

- System is a class and setProperty is a method which accepts 2 arguments i.e key and path
- Key represents in which browser we are going to test the application
- path defines the location of driver executable file.
- It is used to set the class and path location of driver.

27.What is Xpath? Why we are going for Xpath?

- Xpath is one of the locator available in Selenium.

Reason for going to Xpath:

- For validating the locator.
- When id,classname,name is not present,we go for Xpath.

28.What are the Types of Xpath?

- Absolute Xpath
- Relative Xpath

29.What is the difference between Absolute Xpath and Realtive Xpath?

Absolute Xpath:

- It contains \
- Here we find path from root element <html> to desired WebElement tagname

Relative Xpath:

- It contains \\
- Here we find the path from the desired WebElement's tagname only

30.What are the difference between / and // ?

\:

- It means absolute Xpath
- It is used to find path from root element <html> tagname to desired WebElement

  tagname

\\:

- *It means Relative Xpath \\
- *Using this,we find the path from the desired WebElement's tagname only

31.What is the difference between CSS selector and Xpath?

Xpath:

- Xpath syntax is complex compared to css selector
- Using Xpath,we can validate the locators.
- Xpath becomes inconsistent in some browsers
- We can traverse both forward and backward direction

CSS selector:

- CSS selector has simple syntax and it is faster than xpath.
- CSS selector traverse only in forward direction.

32.What is the difference between Radio and CheckBox button?

Radio button:

- For radio button we have to select atleast one option.
- For deselecting we have to select the another option present.

Check box:

- In checkboxes,we can select more than one option.
- For deselecting we have to select the same option one more time.

33.What is the syntax used to perform click operation using JavaScriptExecutor?

- JavaScriptExecutor is an interface that helps to execute JavaScript through Selenium WebDriver.

To perform click operation:

- JavaScriptExecutor js=(JavaScriptExecutor)driverRef;
- js.executeScript("arguments[0].click()",webElementRef);

34.What are the Xpath functions available?

- text()
- contains()
- starts-with()

35.How will you select a female Radio Button in facebook signup and write a code for it ?

*WebElement radioGender=driverRef.findElement(By.Xpath
("//input[@value='1']");

radioGender.click();

36.Baseclass method for clicking an WebElement

*Public static void btnClick(WebElement element){

element.click();

}

37.What is mean by StaleElementReferenceException?

- Stale Element means an old element or element that is no longer available in DOM.
- When the user refreshes the page or navigates into new page, DOM changes then the WebElement goes stale.
- If we try to reuse the WebElement that became stale we will get StaleElementReferenceException.
- To avoid this exception, we can implement POM framework.

38.What is the purpose of debug?

- It is used to find the error in the program code.
- It is the step by step verification.
- We can easily identify the step where the code getting exception.

39.What are the steps to be debug?

- Set the break point
- just right click-->debug us-->java application.
- Click the shortcut key F6 for stepOver(for moving each step)

40.What are the ways to do debug?

- Eclipse debugger.
- Firefox javaScript debugger.
- Dynamic debugging technique
- On line debugging tool.

41.How to find xpath for any WebElement which contains no attributes?

- By using xpath function text() and contains()

//tagname[text()='textname']

//tagname[contains(text(),'partial text')]

42.How to print a paragraph from webpage?

- By using xpath function text(),contains()

//tagname[contains(text(),'partial text')]

- By using getText() method we can get the text

System.out.Println(webElemRef.getText();)

43.What is the method used to get the text from the webpage?

- getText() method is used to get the text from webpage.

44.What is the purpose of getText() and getAttribute() ?

- getText() method is used to get the text from webpage.
- getAttribute("attributename") method is used to get the attribute value of the given attribute
- getAttribute("value") also used to get the input what we have passed to a webElement

45.What is the return type of getText() and getAttribute() ?

- String is return type for both the methods.

46.In which class/interface getText() and getAttribute() methods present ?

- In WebElement interface ,getText() and getAttribute() methods are present

47.What is the use of Thread.sleep(milliseconds)?

- Thread.sleep(milliseconds) is used to make your program to wait for some defined time to avoid abnormal termination due to page loading issues.

48.Whether it is possible to get the text from webpage without using getText()?

- No,it is not possible to get the text from webpage without using getText() method.

49.What is Mouse hover action?

- To move the cursor over a desired WebElement.
- When we place cursor over some content in the webpage,it will display a list of content.For achieving those actions
- we can use Actions class.

50.Write a code to perform MouseOverAction?

*Actions refName= new Actions(driver refName);

refName.moveToElement(WebElementrefName).perform();

51.Whether Actions is a class or Interface?

*Actions is a class.

52.How will you perform drag and drop operation?

*Actions refName= new Actions(driver refName);

refName.dragAndDrop(sourceWebElement,destWebElement).perform();

(or)

*Actions refName= new Actions(driver refName);

refName.clickAndHold(WebElementRef).perform();

refName.release(WebElementRef).perform();

53.what is the use of the Actions class?

- Actions class is used to perform mouse operations such as mouse hover action,drag and drop,double click and
- right click operations
- This class will contain more methods for performing each of the mouse actions.

54.What is the purpose of Drag and Drop?

- In some webpages,the design will be like we need to drag and drop the content to the specified field.
- That we can achieve only through mouse.For mouse operations,we use Actions class in Selenium.
- dragAndDrop() method can be used to do that operation

55.In which class dragAndDrop method is available?

- Actions-class

56.Why we use perform()?

- The menu list disappear with in the fractions of seconds before Selenium identify the next submenu item and perform
- click action on it.So,it is better to use perform() method.Only then the desired mouse action can be performed.

57.What is the purpose of moveToElement()? where it is used?

- moveToElement() method will be used to move the cursor to the particular element.

58.In which class moveToElement() is present?

- Under Actions class moveToElement() is present.

59.What are methods available in Actions class ?

- moveToElement()
- contextClick()
- doubleClick()
- dragAndDrop()

60.What is the difference between moveToElement() & switchTo()?

- moveToElement() will move to that particular element.
- switchTo() can be used to move the control to an alert,frame or window

61.What is a Robot class?

- Robot class is a class which is used to perform the keyboard actions in java.

- It is present in java.awt package.

- It contain two methods keyPress() and keyRelease()

- It throws AWTException.

62.What are the purpose of Robot class?

- It is used to achieve keyboard operations while running a test script

63.Write a code for Robot class?

*Robot refname = new Robot();

refname.keyPress(KeyEvent_vk_anykeyyouwant);

refname.keyRelease(KeyEvent_vk_anykeyyouwant);

 vk-->virtual keyboard

64.In which package Robot class is available?

- java.awt

65.What exception Robot class throws?

- AWTException

66.Which method is used to perform rightClick operation?

- contextClick() method is used to perform rightClick.

67.Which method is used to perform doubleClick?

- doubleClick() method is used to perform doubleClick.

68.How will take a screenshot of webpage?

- By using getScreenShotAs() method from TakesScreenShot interface we can take the screenshot.

69.Whether TakesScreenShot is a class or interface?

- TakesScreenShot is a interface.

70.What are the screenshot output type formats available?

- OutputType.FILE

- OutputType.BYTES

- OutputType.BASE64

71.What are the methods used for scrollUp and scrollDown ?

- executeScript() method from JavaScriptExecutor is used to scrollup and scroll down.
- arguments[0].scrollIntoView(true)------argument needs to be passed for scroll down operation
- arguments[0].scrollIntoView(false)------argument needs to be passed for scroll up operation

72.Whether JavaScriptExeceutor is a class or interface?

- JavaScriptExeceutor is an interface.

73.How can we can select the options from drop down ?

- By using Select class,we can select the options from single select and multi select dropdown.

74.Whether Select is a interface or class?

- Select is a class.

75.Write a code to print all the options in DropDown?

- getOptions() method is used to get all options in dropdown.

- getOptions() method will return List<WebElement> then iterating each WebElement and using getText() method

we can print all the dropdown values.

76.Can we select multiple values in DropDown?

- Yes,we can select multiple values in a DropDown if it is a multiselect dropdown.

77.How to check the dropdown is single select or multi select dropdown?

*isMultiple() method from Select class can be used to check whether the dropdown is single select

or multi select dropdown

78.What are the methods available in select class?

- selectByValue();

- selectByVisibleText();

- selectByIndex();

- getOptions();

- getAllSelectedoptions();

- getFirstselectedoptions();

- isMultiple();

- deSelectByValue();

- deSelectByVisibleText();

- deSelectByIndex();

- deSelectAll()

79.can we deselect the options in dropdown?

Yes, we can deselect the options in dropdown using the below methods.

- deSelectByValue();

- deSelectByVisibleText();

- deSelectByIndex();

- deSelectAll()

80.Write a code to print selected options in dropdown?

*By using getAllSelectedoptions() method we can get all the selected WebElements.

Select refName = new Select();

refName.getAllSelectedoptions();

*getAllSelectedoptions() method will return List<WebElement> then iterating each WebElement and using getText() method

we can print all the selected options from dropdown.

81.Write the return type of all methods available in Select class?

- selectByValue() -void

- selectByVisibleText() -void

- selectByIndex() -void

- getOptions() -List<WebElement>

- getAllSelectedoptions() -List<WebElement>

- getFirstselectedoption() -WebElement

- isMultiple() -boolean

- deSelectByValue() -void

- deSelectByVisibleText() -void

- deSelectAll()   -void

- deSelectByIndex() -void

82.What is the purpose of windows Handling?

*Whenever we have multiple windows,to switch the program control between different windows,

you can go for windows handling concept in Selenium.

We can perform switch the control between windows in 3 ways:

- using window title
- using window url
- using window id

83.Write a method used to get the window id of all the windows opened?

*Set<String> refname= driverRefName.switchTo.getWindowsHandles();

84.What are the different types of arguments you can pass in windows()?

- id
- url
- title

But all the arguments are of String type.

85.When you have multiple windows opened ,how to directly switch from parent window to 8 th child window?

List<String> allWindowsId=(List<String>)driver.getWindowHandles();

driver.SwitchTo().window(allWindowsId.get(7));

86.What is meant by webtable?

- Table present in a webpage is called webtable.
- It starts and ends with <table> and</table>.
- The web table contain <tr> <td> <th> tags.
- <tr></tr> represents table row
- <td></td> represents table data
- <th></th> represents table heading

87.Write a code to display all the Column Name in table?

*List<WebElement> rowRef=driver.findElements(By.tagname("tr"));

WebElement firstRow=rowRef.get(0);

List<WebElement> colRef=firstRow.findElements(By.tagname("td"));

for(int j=0;j<colRef.size();j++)

{

List<WebElement> col=colRef.get(j);

String colText=col.getText();

System.out.println(colText);

}

88.Write a code to print all the data from a webtable?

List<WebElement> rowRef=driver.findElements(By.tagname("tr"));

for(int i=o;i<ref.size();i++)

{

WebElement row=rowRef.get(i);

```
List<WebElement> heaRef=row.findElements(By.tagname("th"));

for(int j=0;j<heaRef.size();j++){

 String head= heaRef.get(j).getText();

 System.out.println(head);

}

List<WebElement> dataRef=row.findElements(By.tagname("td"));

for(int j=0;j<colRef.size();j++)

{

List<WebElement> col=colRef.get(j);

String colText=col.getText();

System.out.println(colText);

}

}
```

89.What is the use of wait?

*Wait operation is used to make your script to wait the for some time till webpage is getting loaded completely to

avoid exceptions due to page loading issues

90.What are the types of wait?

*Static wait

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Even though the locator is found, it will wait for maximum time

Thread.sleep(milliseconds);--->throws InterruptedException

Eg:

Thread.sleep(5000);--->wait for 5 seconds

*Dynamic wait:

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- *If the locator is found within some seconds,it will not wait till the maximum time.
- *Implicit wait

- *Explicit wait

91.What are the difference between implict wait and explict wait?

Implict wait:

- *It is applicable for all the locators in the webpage.
- *driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);

Explict wait:

- We can set ExplicitWait for particular locator/condition.

92.What are the difference between getWindowHandle() and getWindowHandles()?

- getWindowHandle() is used to get the parent window id.

- getWindowHandles() is used to get all the child windows id.

93.Write a method to print the first selected option in drop down?

- getFirstSelectedOption() method used to get the first selected option from drop down.

- It returns Single WebElement.

- From the WebElement we can get the text using getText() method.

94.What is mean by alert?

- Alert is an information box displayed in the webpage to give some information to the user.

- When any Alert present in the webpage,without handling the alert user cannot do the next operation in the webpage.

- To handle the alert,we have Alert interface inteface in Selenium.

95.What are the methods available in Alert?

- accept()

- dismiss()

- sendkeys()

96.Whether Alert is a class or interface?

- *Alert is an interface.

97.Explain each word in WebDriver driver=new ChromeDriver();

- WebDriver -->interface
- driver -->reference name
- new -->keyword
- ChromeDriver-->Class name

98.What is the difference between defaultContent() and parentFrame() method?

- *defaultContent() returns the control to the main webpage.
- *parentFrame() returns the control to the immediate parent frame of the current frame.

99.What are the different types of arguments we can pass in frames?

- WebElement
- Name
- Id
- Index

100.What is the purpose of isDisplayed(),isSelected(),isEnabled()?

- isDisplayed()-To check whether WebElement is hidden or not.
- isSelected() -To check whether checkbox ,radio box or dropdown value is selected or not.
- isEnabled() -To check whether button and textbox is in enabled state or not.

101.What is mean by Fluent Wait?

- Each FluentWait instance defines the maximum amount of time to wait for a condition, as well as the frequency with which to check the condition.
- The user may configure the wait to ignore specific types of exceptions while waiting, such as

NoSuchElementExceptions when searching for an element on the page.

102.What is mean by following,sibling,child,parent,preceding in Xpath?

Following:

----

*denotes the immediate next element of the current node.

sibling:

- *denotes the following siblings of the context node. Siblings are at the same level of the current node .

Parent:

- *denotes the parent of the current node.

Child :

- *denotes the child of the current node.

Preceding:

- *denotes the preceding element of the current node.

103.What is the use of getCssValue() method?

To get the value of a given CSS property of a WebElement such as font color,alignment,size etc

104.What is the difference between partial link text and link text?

LinkText:

- In linktext we take all the text from a link(link must be a hyperlink)
- Example: WebElement web = driver.findElement(By.linkText("Product Category"));

PartialLinkText:

- In the PartialLinkText we take partial text from a link's text(link must be a hyperlink)

- Example: WebElement web = driver.findElement(By.partialLinkText("Category"));

105.List some of the interfaces available in selenium?

- WebDriver

- JavascriptExecutor

- Alert

- TakeScreenShot

106.What is a broken link and how do you find it?

- Broken links are links or URLs that are not reachable.

For checking the broken links, you will need to do the following steps.

- Collect all the links in the web page based on <a> tag.

- Send HTTP request for the link and read HTTP response code.

- Find out whether the link is valid or broken based on HTTP response code.

- Repeat this for all the links captured.

107.What is framework, why we go for framework?

- Famework is a code structure that helps to make code maintenance easy.

- Without frameworks, we will place the "code" as well as "data" in the same place which is neither re-usable nor readable.

- Using Frameworks, produce beneficial outcomes like increased code re-usage, higher portability, reduced script maintenance cost, higher code readability, etc.

108.What is the difference between get() and navigate()?

- If we use get() method, it is used to launch the given url and get() method will wait till the page loads completely

- If we use navigate() method, we can perform back(), refresh() and forword() action since it stores browser cookies and navigate() method will not wait till the page loads completely.