

SELENIUM INTERVIEW QUESTIONS AND ANSWERS (PART 02)

1. Q: How To Handle Browser Windows in Selenium WebDriver?

A: Use the ``getWindowHandle()`` and ``getWindowHandles()`` methods to manage browser windows.

```
String mainWindow = driver.getWindowHandle();
Set<String> allWindows = driver.getWindowHandles();
for (String window : allWindows) {
    driver.switchTo().window(window);
    // Perform operations
}
driver.switchTo().window(mainWindow); // Switching back to main window
```

2. Q: What is the Difference between `getWindowHandle()` & `getWindowHandles()` methods?

A: ``getWindowHandle()`` returns the handle of the current window, while ``getWindowHandles()`` returns a Set of handles for all open windows.

3. Q: How To Switch between Multiple Browser Windows?

A: Use ``getWindowHandles()`` to get all window handles and switch between them.

```
Set<String> allWindows = driver.getWindowHandles();
for (String window : allWindows) {
    driver.switchTo().window(window);
    // Perform operations in this window
}
```

4. Q: What is the difference between `close()` and `quit()` methods?

A: The ``close()`` method closes only the current window, whereas ``quit()`` closes all windows and terminates the WebDriver session.

5. Q: How to close All browser Windows?

A: Use the ``quit()`` method to close all windows and end the session.

SELENIUM INTERVIEW QUESTIONS AND ANSWERS (PART 02)

6. Q: How To close Specific Browser Window by choice?

A: Switch to the specific window using `switchTo().window(windowHandle)` and call the `close()` method.

```
driver.switchTo().window(windowHandle);  
driver.close();
```

7. Q: How To Locate links in Selenium WebDriver?

A: You can locate links using `By.linkText()` or `By.partialLinkText()`.

```
WebElement link = driver.findElement(By.linkText("Link Text"));  
WebElement partialLink = driver.findElement(By.partialLinkText("Partial Link Text"));
```

8. Q: What is the difference between LinkText() and PartialLinkText()?

A: `LinkText()` locates a link by its exact text, while `PartialLinkText()` locates it using partial matching of the text.

9. Q: How to capture all the links from Web Page?

A: Use `findElements(By.tagName("a"))` to capture all links on a web page.

```
List<WebElement> allLinks = driver.findElements(By.tagName("a"));  
for (WebElement link : allLinks) {  
    System.out.println(link.getText() + " - " + link.getAttribute("href"));  
}
```

10. Q: What is Broken Link? How to check it?

A: A broken link is a link that leads to a 404 error or other failure. You can check for broken links by sending an HTTP request to the link's URL and checking the response code.

```
URLConnection http = (URLConnection) new URL(link.getAttribute("href")).openConnection();  
http.connect();  
int responseCode = http.getResponseCode();  
if (responseCode != 200)  
{  
    System.out.println("Broken Link: " + link.getAttribute("href"));  
}
```

SELENIUM INTERVIEW QUESTIONS AND ANSWERS (PART 02)

11. Q: What is Java Script Alert?

A: A JavaScript alert is a pop-up box used to display messages or warnings.

12. Q: How To Handle Java Script Alerts?

A: You can handle alerts by switching to them using `driver.switchTo().alert()` and then accepting or dismissing them.

```
Alert alert = driver.switchTo().alert();  
alert.accept(); // To accept the alert  
alert.dismiss(); // To dismiss the alert
```

13. Q: How To Handle Authentication Popup?

A: Pass the username and password directly in the URL like this:

```
driver.get("http://username:password@url.com");
```

14. Q: How To Handle Permission Pop-ups?

A: Permission pop-ups like location or notification permissions can be handled by setting desired browser capabilities to automatically accept or deny them.

15. Q: What is the difference between frame and iframe?

A: Both are used to embed documents in a web page, but `iframe` is more commonly used for embedding external content, while `frame` is less common and typically used within a `frameset`.

16. Q: How To Handle iframes in Selenium WebDriver?

A: Use `driver.switchTo().frame()` to switch to an iframe by index, name, or WebElement.

```
driver.switchTo().frame(0); // Switch by index  
driver.switchTo().frame("frameName"); // Switch by name  
WebElement iframeElement = driver.findElement(By.id("iframeId"));  
driver.switchTo().frame(iframeElement); // Switch by WebElement
```

SELENIUM INTERVIEW QUESTIONS AND ANSWERS (PART 02)

17. Q: How To Switch between multiple iFrames?

A: First, switch to the outer iframe, then switch to the inner iframe. Use `driver.switchTo().defaultContent()` to return to the main page.

```
driver.switchTo().frame(outerFrame);
driver.switchTo().frame(innerFrame);
driver.switchTo().defaultContent(); // Return to the main content
```

18. Q: How To Work with Inner iFrames?

A: Switch to the outer iframe, then switch to the inner iframe as mentioned above.

19. Q: What is Synchronization problem in Automation?

A: Synchronization problems occur when WebDriver tries to interact with elements that are not yet available, often due to dynamic loading of web content.

20. Q: What are the different types of waits available in Selenium WebDriver?

A: Selenium WebDriver provides two main types of waits:

- **Implicit Wait:** Waits for a certain amount of time for elements to appear.
- **Explicit Wait:** Waits for specific conditions to be met before proceeding.

```
// Implicit Wait
driver.manage().timeouts().implicitlyWait(10, TimeUnit.SECONDS);

// Explicit Wait
WebDriverWait wait = new WebDriverWait(driver, 10);
wait.until(ExpectedConditions.visibilityOfElementLocated(By.id("elementId")));
```

21. Q: How To Handle Web Table in Selenium WebDriver?

A: Use locators to find rows and columns and iterate through them to extract the data.

```
List<WebElement> rows = driver.findElements(By.xpath("//table[@id='tableId']/tbody/tr"))
for (WebElement row : rows)
{
    List<WebElement> columns = row.findElements(By.tagName("td"));
    for (WebElement column : columns)
    {
        System.out.println(column.getText());
    }
}
```

SELENIUM INTERVIEW QUESTIONS AND ANSWERS (PART 02)

22. Q: How To Handle Dynamic Web Table with Pagination in Selenium?

A: Iterate through the pages by interacting with the next/previous buttons, capturing the table data for each page.

23. Q: How To Handle Date Pickers?

A: Date pickers can be handled by either entering a date directly into the input field or interacting with the calendar widget.

```
WebElement dateField = driver.findElement(By.id("dateInput"));
dateField.sendKeys("2023-10-01");
```

24. Q: How To Perform Mouse Operations in Selenium WebDriver?

A: Use the `Actions` class to perform mouse operations like clicking, double-clicking, right-clicking, and drag-and-drop.

25. Q: How to Perform Right click Action?

A: Use the `contextClick()` method of the `Actions` class.

```
Actions actions = new Actions(driver);
WebElement element = driver.findElement(By.id("elementId"));
actions.contextClick(element).perform();
```

26. Q: How to Perform Double click Action?

A: Use the `doubleClick()` method of the `Actions` class.

```
Actions actions = new Actions(driver);
WebElement element = driver.findElement(By.id("elementId"));
actions.doubleClick(element).perform();
```

27. Q: How to Perform Drag and Drop Action?

A: Use the `dragAndDrop()` method of the `Actions` class.

```
WebElement source = driver.findElement(By.id("sourceId"));
WebElement target = driver.findElement(By.id("targetId"));
Actions actions = new Actions(driver);
actions.dragAndDrop(source, target).perform();
```

SELENIUM INTERVIEW QUESTIONS AND ANSWERS (PART 02)

28. Q: How to Perform Mouse Hover Action?

A: Use the `moveToElement()` method of the `Actions` class to hover over an element.

```
Actions actions = new Actions(driver);
WebElement element = driver.findElement(By.id("elementId"));
actions.moveToElement(element).perform();
```

29. Q: How To Handle Slider?

A: Use the `Actions` class to drag the slider to the desired position.

```
WebElement slider = driver.findElement(By.id("sliderId"));
Actions actions = new Actions(driver);
actions.clickAndHold(slider).moveByOffset(50, 0).release().perform(); // Move right by 50 pixels
```

30. Q: How To Find Location & Size of the Web Element?

A: Use the `getLocation()` and `getSize()` methods to retrieve the location and size.

```
WebElement element = driver.findElement(By.id("elementId"));
Point location = element.getLocation();
Dimension size = element.getSize();
System.out.println("Location: " + location);
System.out.println("Size: " + size);
```

31. Q: What is the Difference Between Actions & Action?

A: `Actions` is a class that provides methods for performing complex user interactions. `Action` is an interface that represents a single user interaction, typically used in building a sequence of actions with the `Actions` class.

32. Q: What is the Difference Between build() & perform()?

A: `build()` creates a composite action, returning an `Action` object, which can be executed later. `perform()` executes the actions immediately.

```
Actions actions = new Actions(driver);
actions.moveToElement(element).click(); // No immediate execution
Action action = actions.build(); // Builds the action
action.perform(); // Executes the action
```

SELENIUM INTERVIEW QUESTIONS AND ANSWERS (PART 02)

33. Q: How To Handle Keyboard Actions in Selenium WebDriver?

A: Use the `Actions` class to simulate keyboard actions like pressing keys, sending keys, etc.

```
Actions actions = new Actions(driver);  
actions.sendKeys(Keys.TAB).perform(); // Presses the Tab key  
actions.sendKeys("Text to type").perform(); // Types text into the focused element
```
