Selenium WebDriver Interview Questions & Answers

Selenium WebDriver Basic Questions

1. What is Selenium?

Selenium is an open-source automation tool used to automate web applications for testing purposes. It supports multiple browsers and programming languages like Java, Python, C#, etc.

2. Difference between Selenium 3 and Selenium 4?

Selenium 4 has native support for W3C WebDriver protocol, improved DevTools integration, new Relative Locators, updated Grid architecture, and Selenium Manager for auto-driver management.

3. What are the different types of locators in Selenium?

id, name, className, tagName, linkText, partialLinkText, cssSelector, xpath.

4. Difference between findElement() and findElements()?

findElement() returns the first matching element or throws an exception if not found. findElements() returns a list of elements or an empty list.

5. How do you handle dropdowns in Selenium?

Use the Select class: Select dropdown = new Select(driver.findElement(By.id("dropdown"))); dropdown.selectByVisibleText("Option 1");

6. How to handle multiple windows in Selenium?

Use getWindowHandles() and switchTo().window(handle) to switch between windows.

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

Both navigate to a URL, but navigate().to() is part of the Navigation interface and supports forward/backward actions.

8. How do you handle alerts?

Use Alert alert = driver.switchTo().alert(); alert.accept() or alert.dismiss().

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9. How do you handle frames and iframes?

Use driver.switchTo().frame("frameName"); then switch back with driver.switchTo().defaultContent().

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

driver.close() closes the current window, driver.quit() closes all windows and ends the session.

Selenium WebDriver Advanced Questions

11. What are the different types of waits in Selenium?

Implicit Wait, Explicit Wait, Fluent Wait.

12. Implicit vs Explicit Wait?

Implicit applies globally and waits till the element appears. Explicit waits for a specific condition using WebDriverWait.

13. What is Fluent Wait?

Advanced explicit wait allowing polling frequency and exception handling. Example: polling every 5s for 30s.

14. How do you handle StaleElementReferenceException?

Re-locate the element before performing actions again.

15. What is JavaScriptExecutor?

Allows execution of JavaScript: ((JavascriptExecutor) driver).executeScript("arguments[0].click();", element);

16. How do you scroll a webpage using Selenium?

Use JavaScriptExecutor or Actions class to scroll.

17. How do you take a screenshot in Selenium?

File src = ((TakesScreenshot) driver).getScreenshotAs(OutputType.FILE);

18. How do you handle file uploads in Selenium?

Use sendKeys() on <input type="file"> element with file path.

19. How do you validate broken links in Selenium?

Extract hrefs and validate via HttpURLConnection for response codes.

20. How do you capture network logs in Selenium?

Use Chrome DevTools Protocol in Selenium 4 via DevTools API or LoggingPreferences.