

Selenium Java

Interview Questions And Answers



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Cracking Automation Tester Interview Series : **Part #1**



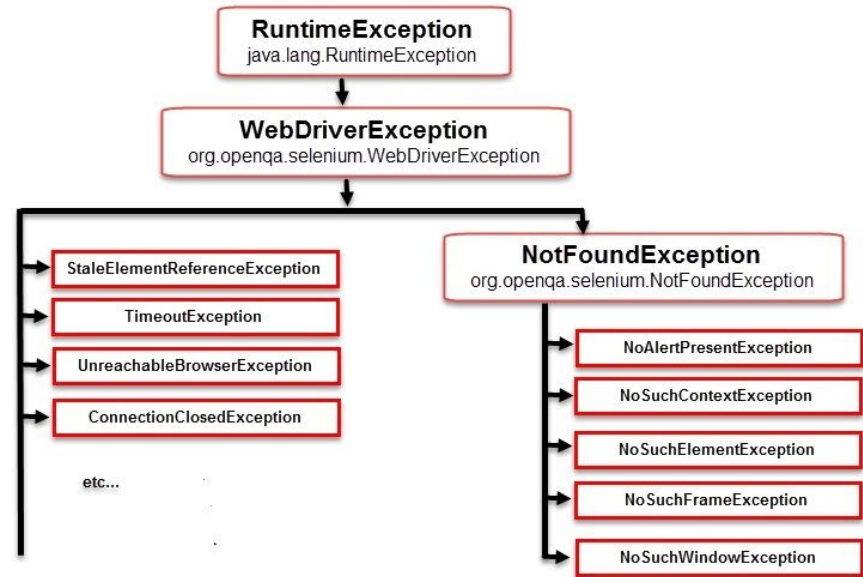
Question #1 : What is Selenium Webdriver?

- Its an automation framework that allows you to execute your tests against different browsers.
- WebDriver also enables you to **use a programming language** in creating your test scripts
 - Java, .Net, PHP, Python, Ruby, Perl
- It supports
 - Chrome
 - Firefox
 - Opera
 - Safari
 - IE



Question #2 : What are the different types of exceptions you have faced in Selenium WebDriver?

- NoSuchElementException
- NoSuchWindowException
- NoSuchFrameException
- NoAlertPresentException
- ElementNotVisibleException
- ElementNotSelectableException
- TimeoutException



Question #3 : What is implicit wait in Selenium WebDriver?

The implicit wait will tell the WebDriver to wait a certain amount of time before it throws a “No Such Element Exception.”

The default setting of implicit wait is zero. Once you set the time, the web driver will wait for that particular amount of time before throwing an exception.

Syntax:

```
driver.manage().timeouts().implicitlyWait(30, TimeUnit.SECONDS);
```

Question #4 : What is WebDriver Wait in Selenium WebDriver?

Explicit waits are a concept from the dynamic wait, which waits dynamically for specific conditions. It can be implemented by the WebDriverWait class

Syntax:

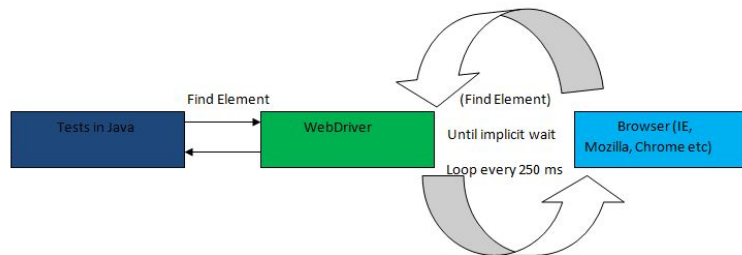
```
WebDriverWait wait = new WebDriverWait(driver, 20);  
WebElement element =  
wait.until(ExpectedConditions.elementToBeClickable(By.id("input")));
```

Question #5 : What is Fluent Wait in Selenium WebDriver?

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.

Syntax:

```
Wait wait = new FluentWait(driver)
    .withTimeout(30, SECONDS)
    .pollingEvery(5, SECONDS)
    .ignoring(NoSuchElementException.class);
WebElement element = wait.until(new Function() {
    public WebElement apply(WebDriver driver) {
        return driver.findElement(By.id("element"));
    }
})
```



Question #6 : How to Input Text into a value by Javascript?

```
JavascriptExecutor executor = (JavascriptExecutor)driver;  
executor.executeScript("document.getElementById("<<inputbox_id>>").value='new value'");
```

Question #7 : How to get an attribute value of an element using Selenium WebDriver?

```
driver.findElement(By.Id("button_id")).getAttribute("text");
```


Question #8 : How to Send Keyboard keys like press Enter key on text box in Selenium WebDriver?

```
driver.findElement(By.Id("button_id")).sendKeys(keys.ENTER);
```

Question #9 : What is the difference between `driver.get("URL")` and `driver.navigate().to("URL")` commands?

`driver.get()` is used to navigate particular URL(website) and wait till page load.

`driver.navigate()` is used to navigate to particular URL and does not wait to page load. It maintains browser history or cookies to navigate back or forward.

Question #10 : How to pause a test execution for 5 seconds at a specific point?

We can pause test execution for 5 seconds by using the wait command.

Syntax:

```
driver.wait(5);
```

Question #11 : What is Selenium Grid and when do we go for it?

Selenium Grid is used to run tests on different machines against different browsers in parallel. We use Selenium Grid in the following scenarios:

- Execute your test on different operating systems
- Execute your tests on different versions of same browser
- Execute your tests on multiple browsers
- Execute your tests in parallel and multiple threads

Question #12 : What is a Hub in Selenium Grid?

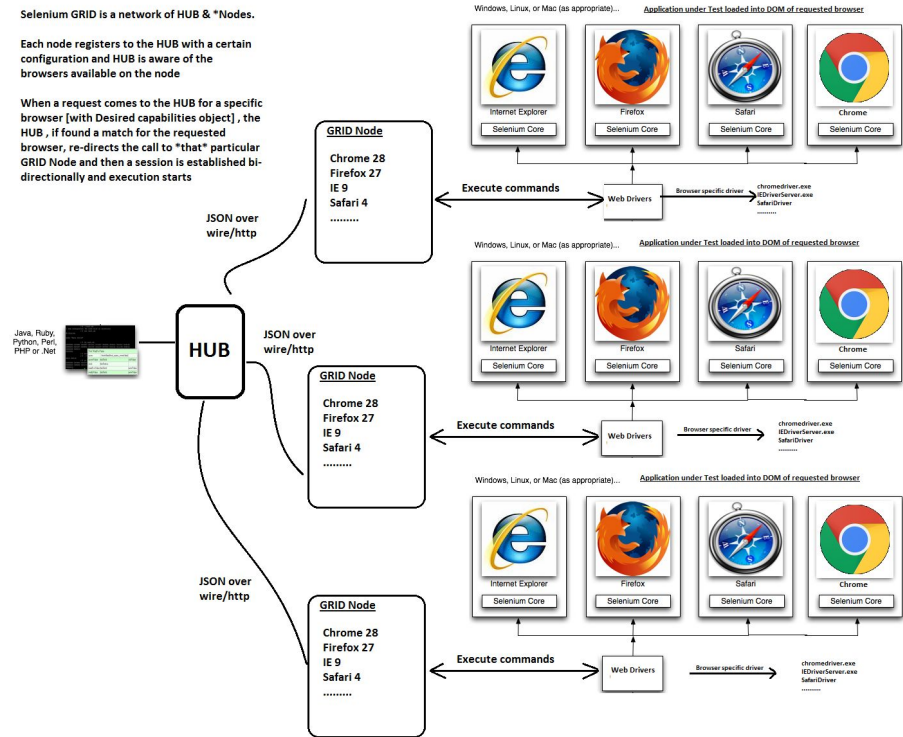
Hub is the central point to the entire GRID Architecture which receives all requests.

There is only one hub in the selenium grid. Hub distributes the test cases across each node.

Selenium GRID is a network of HUB & *Nodes.

Each node registers to the HUB with a certain configuration and HUB is aware of the browsers available on the node

When a request comes to the HUB for a specific browser [with Desired capabilities object], the HUB, if found a match for the requested browser, re-directs the call to "that" particular GRID Node and then a session is established bi-directionally and execution starts

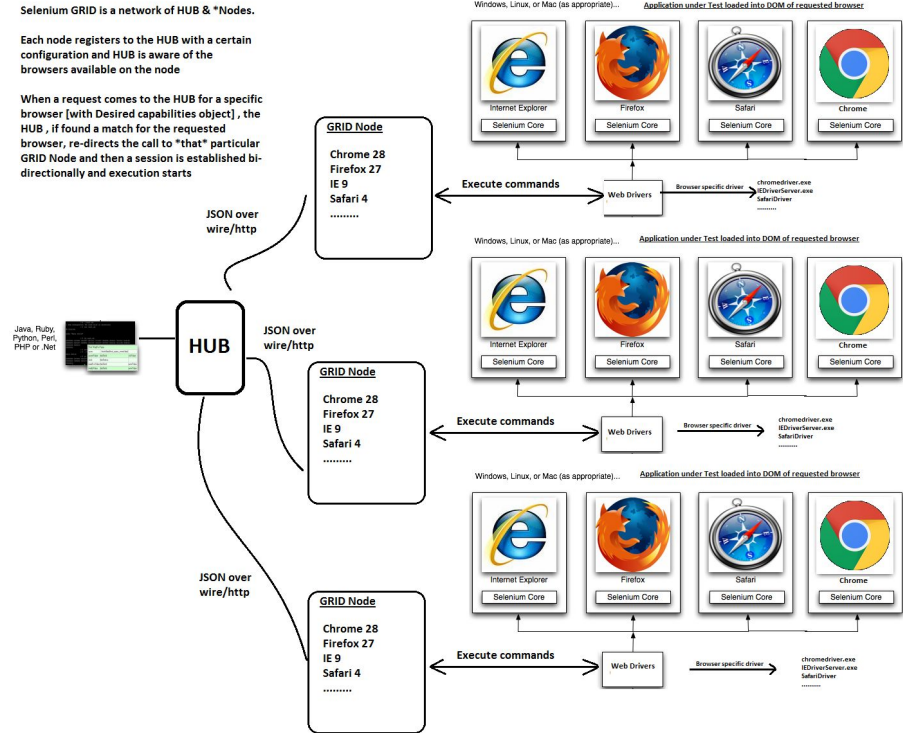


Question #13 : What is a Node in Selenium Grid?

There can be multiple nodes in Grid.

Tests will run in nodes.

Each node communicates with the Hub and performs test assigned to it.



Question #14 : Which WebDriver implementation claims to be the fastest?

HTML UnitDriver is the most lightweight and fastest implementation headless browser for of WebDriver. It is based on HtmlUnit.

It is known as Headless Browser Driver.

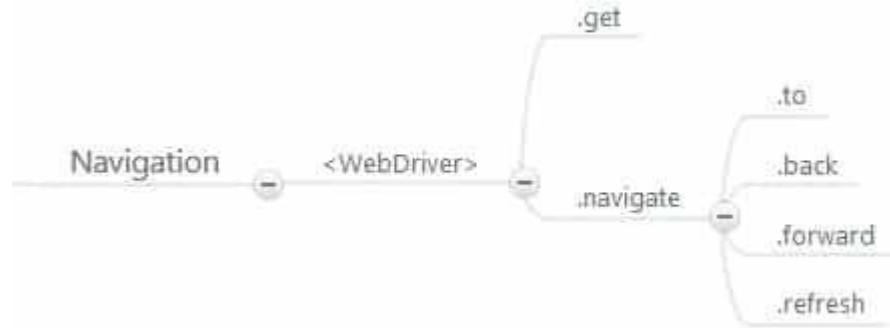
It is same as Chrome, IE, or FireFox driver, but it does not have GUI so one cannot see the test execution on screen.

Question #15 : What are the open source frameworks supported by Selenium WebDriver?

- TestNG
- JUnit
- Cucumber
- Robot Framework
- Appium
- Protractor

Question #16 : What are the different types of navigation commands in Selenium?

- `navigate().to();`
- `navigate().forward();`
- `navigate().back();`
- `navigate().refresh();`



Question #17 : How can we maximize browser window in Selenium WebDriver?

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



```
*Class1.java
package package1;

import org.junit.*;

public class Class1
{
    WebDriver _driver;

    @Before
    public void setUp()
    {
        _driver = new FirefoxDriver();
        _driver.manage().window().maximize();
    }

    @Test
    public void testMethod()
    {
        _driver.get("http://www.Selenium143.blogspot.com");
        _driver.
    }
```

Question #18 : How to delete cookies in Selenium?

Single Cookie Delete by Name

```
driver.manage().deleteCookieNamed(
    "hello");
```

All the cookies

```
driver.manage().deleteAllCookies();
```

```
@Test
public void deleteCookieInSelenium()
{
    // First step set the driver location
    // For Window user
    // System.setProperty("webdriver.chrome.driver", "/Users/t

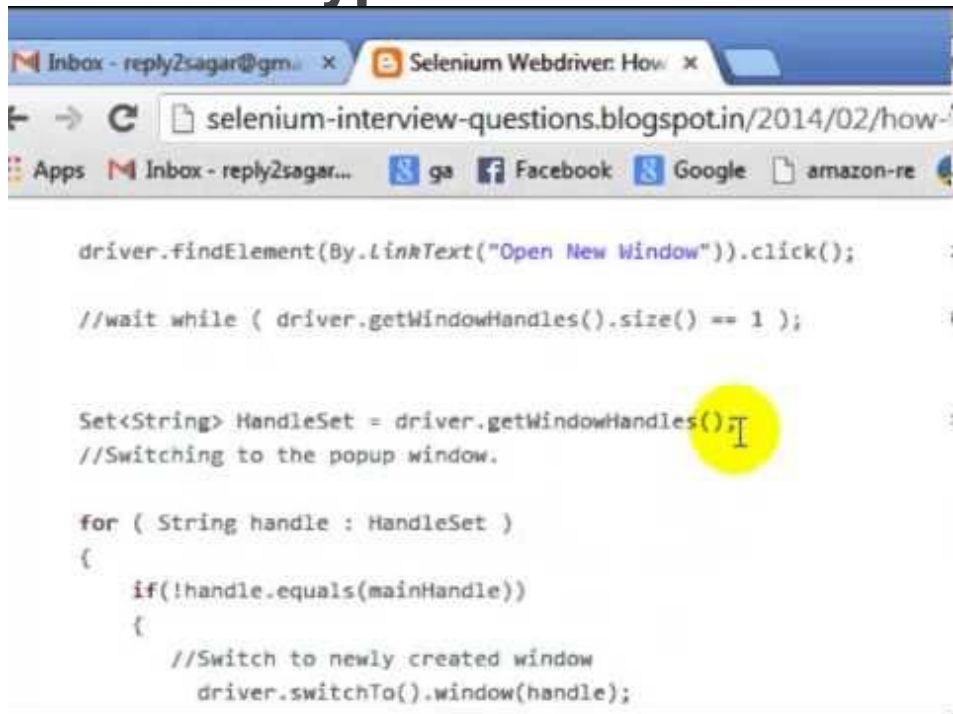
    System.setProperty("webdriver.chrome.driver", "/Users/bsir
    // create chrome object
    driver = new ChromeDriver();
    driver.navigate().to("http://flipkart.com/");
    driver.manage().deleteCookieNamed("");

    // After adding the cookie we will check that by displayir
    Set<Cookie> cookiesList = driver.manage().getCookies();
    for(Cookie getcookies :cookiesList) {
        System.out.println(getcookies );
    }
}
```

Question #19 : What is the difference between `driver.getWindowHandle()` and `driver.getWinowHandles()` in Selenium WebDriver and their return type?

`driver.getWindowHandle()` – To get the window handle of the current window. Returns a string of alphanumeric window handle

`driver.getWinowHandles()` – To get the window handle of all current windows. Return a set of window handles



```
driver.findElement(By.LinkText("Open New Window")).click();

//wait while ( driver.getWindowHandles().size() == 1 );

Set<String> HandleSet = driver.getWindowHandles();
//Switching to the popup window.

for ( String handle : HandleSet )
{
    if(!handle.equals(mainHandle))
    {
        //Switch to newly created window
        driver.switchTo().window(handle);
    }
}
```

Question #20 : How to handle hidden elements in Selenium WebDriver?

We can use the JavaScriptExecutor to handle hidden elements.

```
JavascriptExecutor js = (JavascriptExecutor)driver;  
js.executeScript("document.getElementById('displayed-text').value=txtHidden");
```

Question #21 : How to find more than one web element in the list?

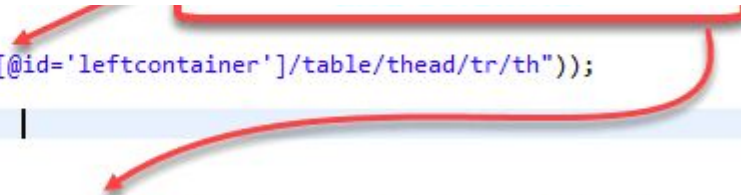
We can find more than one web element by using the `findElements()` method in Selenium.

```
List<WebElement> elements = driver.findElements(By.tagName("a"));
```

```
//No. of Columns
List <WebElement> col = wd.findElements(By.xpath("//*[ @id='leftcontainer']/table/thead/tr/th"));

System.out.println("No of cols are : " + col.size());

//No. of rows
List <WebElement> rows = wd.findElements(By.xpath("//*[ @id='leftcontainer']/table/tbody/tr/td[1]"));
System.out.println("No of rows are : " + rows.size());
wd.close();
}
```



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