**Selenium Questions:**

1. What are the components of Selenium? WebDriver, IDE, RC, Selenium Grid (multiple browser parallel execution)
2. What is Selenium IDE? [Selenium IDE](https://www.browserstack.com/guide/what-is-selenium-ide) (Integrated Development Environment) is primarily a record/run tool. It yop[]is an Add-on or an extension available for both Firefox and Chrome that generates tests quickly through its functionality of record and playback. You don’t need to learn any test scripting language for authoring any [functional tests](https://www.browserstack.com/guide/functional-testing).

What is Selenium WebDriver? Selenium WebDriver is a popular opensource framework used for automating web applications. It provides a programming interface for interacting with web browsers, allowing developers to write scripts .

1. What is Selenium RC? Selenium RC is an important component in the [Selenium](https://www.browserstack.com/selenium) test suite. It is a testing framework that enables a QA or a developer to write test cases in any programming language in order to automate UI tests for web applications against any HTTP website.
2. What is Selenium Grid? [Selenium Grid](https://www.browserstack.com/guide/selenium-grid-tutorial) is a tool that is used for concurrent execution of test cases on different browsers, machines, and operating systems simultaneously. This tool makes Cross-browser compatibility testing very easy. There are two versions of the Selenium Grid – the older version is known as Grid 1 and the recent version is known as Grid 2.
3. How do you specify browser configurations with Selenium WebDriver?
4. Which web driver implementation is fastest? HTMLUnit Driver (do HeadLess testing and based on HtmlUnit)
5. Can you show me one code example of setting Selenium Webdriver?

System.setProperty("webdriver.chrome.driver", "path of driver");

WebDriver driver=new ChromeDriver();

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

driver.get("https://www.browserstack.com/users/sign\_in")

1. What are all different element locators are available with Selenium?
2. How to maximize the window using Selenium WebDriver?
3. How do I clear content of a text box in Selenium webdriver?
4. How to execute JavaScript function in Selenium webdriver?
5. How to select a drop-down value using Selenium webdriver?
6. Explain about select class and its methods? selectById(),selectByValue(),selectByVisibletext(),selectByIndex()
7. How to automate radio button in Selenium Webdriver?
8. How do you submit a form using Selenium?
9. difference between findElement and findElements methods?
10. How to count total number of links in a page using Selenium Webdriver? <href>/<a>
11. How to capture page title using Selenium Webdriver? .getTitle()
12. How to store Current page URL using Selenium Webdriver? .getCurrentUrl()
13. How do you simulate browser back and forward? navigate().back(),navigate().forward()
14. What is the difference between single and double slash in Xpath?
15. How to handle dynamic xpath?
16. There is id, name, XPath, CSS locator, which one should I use?
17. How to assert text of webpage using Selenium Webdriver? Assertion is used to compare between actual and expected .
18. How to get element attribute using Selenium Webdriver?
19. How to double click on element using Selenium Webdriver? .doubleClick(Element)
20. How to perform drag and drop in Selenium Webdriver? dragAndDrop(sourceElement,targetElement)
21. How to synchronize application window and Selenium? Thread.sleep()
22. Explain implicit and explicit wait

Implicit wait:

**An implicit wait is a global setting that applies to all elements in a Selenium script.** It waits a specified time before throwing an exception if the element is not found. We can set the wait once per session and can’t change it later. The default value is 0.**We should set the implicit wait right after initializing the**WebDriver**instance:**

*driver.manage().timeouts().implicitlyWait(Duration.ofSeconds(10));*

Explicit wait:

By using the **Explicit Wait** command, the WebDriver is directed to wait until a certain condition occurs before proceeding with executing the code.

Setting Explicit Wait is important in cases where there are certain elements that naturally take more time to load. If one sets an implicit wait command, then the browser will wait for the same time frame before loading every web element. This causes an unnecessary delay in executing the test script.

*WebDriverWait wait = new WebDriverWait(driver,30);*

*wait.until(ExpectedConditions.visibilityOfElementLocated(By.xpath("//div[contains(text(),'COMPOSE')]")));*

Fluent Wait:

**Fluent Wait** in Selenium marks the maximum amount of time for Selenium WebDriver to wait for a certain condition (web element) becomes visible. It also defines how frequently WebDriver will check if the condition appears before throwing the “**ElementNotVisibleException**”.

To put it simply, Fluent Wait looks for a web element repeatedly at regular intervals until timeout happens or until the object is found.

Fluent Wait commands are most useful when interacting with web elements that can take longer durations to load. This is something that often occurs in Ajax applications.

Wait wait = new FluentWait(WebDriver reference)

.withTimeout(timeout, SECONDS)

.pollingEvery(timeout, SECONDS)

.ignoring(Exception.class);

WebElement foo=wait.until(new Function<WebDriver, WebElement>() {

public WebElement applyy(WebDriver driver) {

return driver.findElement(By.id("foo"));

}

});

1. Is it possible to handle multiple windows in selenium? .getWindowHandles()
2. My application has lots of pop-up window, how do I work with them?
3. How to mouse hover on an element?
4. How to capture screen shot in webdriver?

TakesScreenshot ts = (TakesScreenshot)driver;

File src = ts.getScreenshotAs(OutputType.FILE);

File trg = new File(“Location\\name.jpg”)

File.copyFile(src,trg)

1. How do you connect Data base from selenium? Apache POI libraries
2. How do you get the data from an excel sheet?
3. How do you get the data from a properties file?
4. What are the types of automation framework? Data Driven ,Keyward Driven,Hybrid
5. What is Data driven framework & Keyword Driven?

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| **S.NO.** | **DDT** | **KDT** |
| 01. | Data-driven testing conduct tests by using several stored data, values, and variables. | Keyword-driven testing conduct tests by using specific keywords. |
| 02. | DDT can store their data in many formats like CSV files, excel sheets, databases, tables, script arrays, etc. | KDT can store their data only in Excel sheets. |
| 03. | It is less time-consuming. | It is more time-consuming. |
| 04. | All the test scripts are decoded from the user. | All the test scripts are encoded from the user. |
| 05. | DDT can occur in several stages. | KDT can occur in two different stages. |
| 06. | A high level of programming and technical knowledge is required. | Without knowledge of programming also this test can be performed. |

1. What is Selenium Grid, How Selenium Grid works?

Selenium Grid is a smart proxy server that makes it easy to run tests in parallel on multiple machines. This is done by routing commands to remote web browser instances, where one server acts as the hub. This hub routes test commands that are in JSON format to multiple registered Grid nodes.

1. What is the default Port Id in Grid?
2. What is POM, what are the advantages of POM in selenium?
3. What is Page Factory?
4. What are the advantages of using TestNG?
5. What are the basic annotations used to run TestNG tests in Selenium?
6. What is the difference between @beforemethod and @beforeclass?
7. How to run test cases with dependent in Selenium using TestNG?
8. How to run the test cases in group in Selenium using TestNG?
9. What is the default priority of a test method in TestNG?
10. What is the importance of testng.xml file?
11. How to pass parameters from testng.xml into test case
12. What is the use of @Listener annotation in TestNG?

**BDD Cucumber:**

1. What is BDD? How does Behavioural Driven Development work?
2. What is Cucumber? and list its advantages?
3. What are the main files required to run a Cucumber test scenario?
4. What is meant by a feature file?
5. What are the various keywords that are used in Cucumber for writing a scenario?
6. What is the purpose of a Scenario Outline in Cucumber?
7. What is the purpose of the Step Definition file in Cucumber?
8. What is the use of the Background keyword in Cucumber?
9. What is meant by hooks in Cucumber?
10. How do you run multiple scenarios in Cucumber?

**SOAP UI:**

### Mention what SoapUI can do?

1. Mention what are the default properties in SOAPUI?
2. Mention some important functionalities of SOAP UI?
3. Explain what is SOAP UI?
4. Explain what is the role of XML, SOAP, WSDL and UDDI in web services?
5. Explain what assertion is in Soap UI is and give some example of assertion possible in SOAPUI?
6. What do you understand about web services? State some of the communication channels which are available for a web service.
7. State your understanding of SoapUI automation.

**GIT:**

1. What is Git?
2. What do you understand by the term ‘Version Control System’?
3. Name a few Git commands with their function.
4. What is the process for creating a repository in Git?
5. What is the git push command?

**Maven:**

1. What is Maven Tool?
2. Why should we use Maven?
3. What is a Maven POM file?
4. What are the repositories in Maven?
5. What is a Maven dependency?
6. What is the use of Maven clean?

**CI/CD and Jenkins:**

1. What is continuous integration and deployment?
2. What are CI Tools?
3. What is a CI CD pipeline?
4. What is Jenkins?
5. Why do we use Jenkins with selenium?
6. How do you create a Job in Jenkins?
7. How do you configure automatic builds in Jenkins?