

1) Selenium, Different types. About Selenium WebDriver.

Selenium: It is an open source tool that is used to automating the tests out on web browsers.

Components:

- i) Selenium IDE
- ii) Selenium RC
- iii) Selenium WebDriver
- iv) Selenium Grid.

Selenium WebDriver:-

It is a collection of open source API's which is used to automate the testing of a web application. It supports browsers like Chrome, Safari, Firefox.

2) How selenium communicate with Web Browser?
To communicate b/w drivers, and client (Browser), Selenium webdriver uses JSON, JSON wire protocol is a REST API. that transfers the info. b/w HTTP servers. Each browser driver has its own HTTP server.

3) Locators available to find an element in

- Id locator (By.id)
- Name locator (By.Name)
- Link Text,
- Partial Link Text
- Tagname
- Xpath
- CSS selector.

4) Why ID is preferable than xpath?
* ID is preferable, because, it is the unique identifier for the element and it doesn't change.

* All browsers also have highly efficient methods to get an object on the page using their ID's. This makes ID locator the faster types of locators in selenium.

b) Difference b/w absolute path and relative path.

Absolute path contains the full path from the root of the file system, (or) directly it points to. A relative path contains the path of the file as directory relative to some other path.

7) How to verify if the given checkbox is checked or not

We can use `isSelected()` method over the checkbox element. It returns a boolean value for true if it is checked and false, if it is unchecked.

8) Syntax for preceding and succeeding xpaths:

~~Preceding~~ ^{Following} : `//p[@id='test']/following::button`
Preceding : `//p[@id='sam']/preceding::button`

9) System.setProperty

It is used to set the path of the driver for the respective browser.

WebDriverManager:-

~~It~~ It we set the corresponding executable path explicitly, after that we can use the driver instance.

10) How to get an attribute value using Selenium webdriver.

We can achieve it by using `getAttribute()` method. It returns the value passed in the parameter.