**SELENIUM WEB DRIVER**

**Selenium is open source Web based Automation Testing Tool**

|  |
| --- |
| **Syllabus:**   1. Complete Core java 2. Selenium Webdriver- Major focus (20 hours+ content) 3. Selenium Grid 4. Live projects on Selenium 5. Interview questions discussion with solutions 6. TestNG 7. Maven 8. ANT 9. Jenkins 10. Log4j 11. Real time challenges in developing framework and how to address them 12. Extent Test Execution reports 13. Cucumber 14. Data driven framework 15. Hybrid Framework 16. Page object Model Framework 17. DataBase testing with Selenium 18. Performance testing with Selenium 19. Mobile Automation basics only! 20. CLoud Automation with Sauce labs 21. AutoIT- Desktop Automation integration with Selenium 22. Bonus lecture- Bugzilla defect tool management. |

**What is used before SELENIUM comes into the Picture?**

QTP invented by HP.

It is PAID version. (Have to thousands of dollars to get a license)

**Supporting Browsers:**

Google Chrome, Mozilla Firefox, Internet Explorer, Safari

**Supporting Platforms:**

Windows, Mac OS, Linux

**Languages supported by Selenium:**

Java, C#, Python, JS, PHP, Ruby (Java + Selenium is the very popular.)

Selenium Ide – is to record and to playback. (Mostly not used)

Selenium Web Driver – is the popular one to perform all the regression testing which is web based.

**Architecture of Selenium Web Driver:**

Diagram, application

Description automatically generated

**CLIENT SERVER BROWSERS**

Code which we return 🡪 Converted to JSON 🡪 Chrome Driver, 🡪 Any browsers

Firefox Driver,

IE Driver

**How can we send ‘converted JSON’ to the Server (Browser Drivers)?**

Download the respective Browser driver from the internet.

Include the downloaded driver into the *selenium code* by giving the path of the driver file.

**Responsibility of Browser (Chrome etc.,) Driver:**

After getting the JSON, chrome driver is responsible to start the actual browser and perform all the operations.

And the response back from the browser and send it back to the client or selenium code.

**Setting Up a WebDriver using Java Maven Project:**

**Do we need to download Chrome/ Firefox/ etc., Driver from Internet?**

No, not needed. Selenium itself provide all the browser drivers.

**Problem in using the Standalone Browser drivers:**

**Problem:** If I want to execute the code written using Chrome driver in different browser. We should change ‘Chrome Driver’ to respective browser driver. Because methods present in the ‘Chrome Driver’ might not present in ‘Firefox Driver’.

**Solution:** To solve the above issue Selenium provide the ‘WebDriver’ interface. This ‘WebDriver’ interface will have all the **Common Methods** that are supported all the browsers each browser has its own implementation in their class.

For eg: chromeDriver.get(); firefoxDriver.get();

|  |
| --- |
| String browserName = “Chrome”;  if (browserName == “Chrome”) {  WebDriver chromeDriver = new ChromeDriver();  } |