Friday, September 13, 2024

Automation Testing

Selenium Training - Session 1

Introduction to Selenium

Manual Testing

Performing the testing without using any tools is known as Manual Testing. Here a tester / person will do the testing.

Example: https://www.msn.com (Manually test whether the 'Sign In' option is taking Microsoft Sing in page)

Automation Testing

Performing the testing with the help of tools is known as Automation Testing. Here instead of a person, a tool will perform the testing. The tool used for replacing the person is nothing but a Test Automation tool.

Example: https://www.msn.com (Execute the test case in Selenium IDE Automation tool to verify whether the 'Sign In' option is taking Microsoft Sing in page)

How can a tool perform Testing ?

Testers will do some coding and put the developed code into the Automation tool. Automation tool will perform testing with the help of the code developed by the testers.

Selenium

Selenium in simple terms is a Test Automation Tool. i.e. Instead of a person performing testing manually, Selenium tool will automatically perform the testing with the help of developed code.

Type of Applications that Selenium can automate

Selenium can only automate Web Applications (i.e. The applications which run on the browser).

Example: https://www.msn.com

Selenium cannot automate Desktop Applications (i.e. The applications which dont run on the browsers).

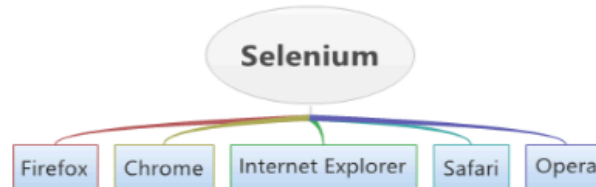Example: Skype, Adobe PDF Reader and many more.

Selenium is a free tool

Selenium is a free tool. (i.e. You don't need to pay any license amount for using Selenium tool.)
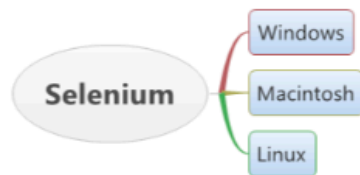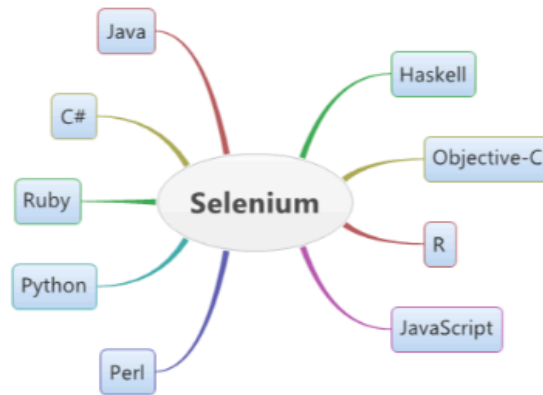
Selenium Training - Session 2

Different Browsers supported by Selenium

Selenium

Firefox | Chrome | Internet Explorer | Safari | Opera

Different Operating Systems supported by Selenium

Selenium

Windows

Macintosh

Linux

Different Programming Languages supported by Selenium

Java

C#

Ruby

Python

Perl

Selenium

Haskell

Objective-C

R

JavaScript

Different Components in Selenium

Selenium is not a single tool. Instead it is a combination of tools like Selenium IDE, Selenium RC, Selenium WebDriver and Selenium Grid. Out of all these tools, Selenium RC is outdated and can be ignored completely.

Different versions of Selenium

So far, Selenium got released into the market in three different versions i.e. Selenium 1, Selenium 2 and Selenium 3. Selenium 1 is the older version and Selenium 3 is the latest version.

Documentation - https://www.selenium.dev/documentation/

Automation testing frameworks - Selenium, UFT - QTP, Cypress, Test Complete

Code - Instructions to to

- Open browser
- Maximize browser
- Open Amazon link

- Enter text in a search box

- Internet Explorer is outdated
- Example: 40th minute
- Selenium RC is outdated since webdriver became popular
- Selenium WebDriver - Important (Selenium IDE - Later)
- Selenium Grid is extension of Selenium WebDriver for few tasks.
- 10 browsers running - slow than sequential opening - open 2,3 at a time

Selenium - 4 - Latest version by 2022

- W3C standardized