03-FEB-2020

Introduction to Selenium WebDriver / WebDriver 3.0

--------------------------------------------------

- It is also called as WebDriver

- It was introduced in 2010

- Main intension is to overcome challenges faced in Selenium RC

- WD (WebDriver) doesn't require RC Server/Proxy Server

- Javascript injections completely removed in WD

- WD also supports different languages like Java/Ruby/Python/Perl/C#

- It supports different browsers like Chrome, Firefox, IE, Safari,...etc

- It supports different OS like Windows, linux, Solaris, Mac(OSX)...etc

- WD is able to communicate with Browser using Browser native code

Ex:

IE ------> developed using C#

FF ------> developed using Java

- Using WD we can also automate mobile applications with addons of Appium.

\*\* WD doesn't have any User Interface \*\* (No screens)

\*\* WD is an API which provides interface between scripts to AUT during runtime.

Architecture of Selenium

------------------------

2. Eclipse WebDriver Library Browser(IE/FF/Chrome/Edge)

Java Project (jar files) AUT (Automation Under Test)

-------java --------> (some programs) ---------------> www.facebook.com

----------- programs Email: box

1.JRE Library -------- classes,

----------- --------- methods,properties

FireFox Driver()

IEServer Driver()

sendkeys()....etc

Interface

Pre requisites for WD Configuration

-----------------------------------

1. JDK 1.8 and above:

-----------------

Java Development kit (JDK) which have the library of JDK+JRE

(Java Runtime Env) JRE

2. Eclipse IDE:

-----------

-> Eclipse IDE is an Editor which is used to develop java programs

-> In this editor we develop automation test scripts based on automation test scenarios after configuration of WD library

3. WebDriver Jars: \*\* I.Q \*\*

--------------

-> WD is an API

-> WD jars (Java Archieve) it is also a library which contains set of classes,methods,properties to communicate browser

WebDriver Configuration:

-----------------------

Step 1: Download JDK 1.8 and Run

In Google --> Download jdk 1.8

Will get C:/Program Files/Java/jdk & jre files

Step 2: Specify JDK and JDK/bin path into system environment variables

Ex: JAVA\_HOME: jdkpath

path (Built-in variable): jdk/binpath

Navigation:

----------

Copy "JDK" path (i.e. C:\Program Files\Java\jdk 1.8)

Right Click on "This PC"

Select "Properties"

Click on "Advanced system settings"

click on "Environment Variables" button

under "Advanced" Tab section

click on "New" button under " System variables " section

enter variable name (ex : JAVA\_HOME)

paste JDK path in " variable value " edit box

click on "OK"

select "path" variable under "System Variables" section

click on "Edit" button

click on "New" button

paste Jdk/bin path

To check cmd --> java -version

Step 3: Download Eclipse oxygen based on OS 32bit/64 bit

(For Java EE Developers)

Note: Mars2, Neon, Oxygen, Photon, versions of Eclipse can also be used

URL: https://www.eclipse.org/downloads/

Extract Eclipse zip file

Open Eclipse folder

select Eclipse (from bottom 3rd one)

right click on mouse

"Send to"

select "Desktop (Create Shortcut)"

Browse:

------

In Google --> Download Eclipse Oxygen

Eclipse IDE for Java EE Developers

Window x64

Step 4: Create "Java Project" in Eclipse

Navigation:

Open "Eclipse" from Desktop

Provide Workspace name (Ex: E:\Selenium Classwork)

Click on "OK"

Click on "Workbench"

Go to File "menu"

"New"

Select "Java Project"

click on "Next"

Enter java project name (Ex: Day01)

click on "Finish"

================================================================== END OF CLASS ======================================================================================