Selenium

* tool for automation testing and is web based testing
* Automation tool
* Platforms
* Browser support
* Integration automated tool – Maven, Jenkins,Docker
* Framework – junit

Need for automations

* Saves time
* Increases accuracy
* Manual testing
* Time consuming
* Screen shot taking is difficult
* Validations isdifficult

Adavantage and disadvantage of selenium

* Open source software
* Support multiple programming languafe
* Suppoer sall os, browsers
* Supports parallel resr esecution
* Supports support forframeworks
* Direct installation of web browsers

Dis

* Not supporting desktop application only supports web application
* No reporting facilities
* Limites support for image based testing
* Requires knowledge of atleast 1 programming language
* No test tool integration

Selenium

* Page object model
* Selenium dev is the official website

Components

* Selenium Ide
* RC
* Weddrive
* Grid

IDE

* It’s a Firefox plugin.
* Can record and playback interactions with the user
* Can code in different Languages
* Create and edit test cases
* Create and execute test suite
* Debug test cases
* Can export to different languages

Drawbacks

* Only support in Mozilla Firefox
* Not suitable for dynamic programming language.
* Not using programming language
* Data driven framework not possible
* Centralised object not possible.

RC-Remote Control

* Time-consuming as all the communication goes through the server
* Slow
* It has a domain having 2 components
* DE plicated, not in use as maintenance is not possible

Web Driver

* From Selenium 2
* Execution based on actions in web elements on a web page
* Comparatively faster than RC
* Each browser has its web driver. Eg: google driver for Google chrome.
* Web driver is an interface.
* Will not get a detailed report
* No centralized maintenance for objects.

Grid

* Parallel execution
* Cross browser
* Hubnode component controls multiple platforms
* Needs the help of other components for working.

Edgebrowser launch

Edgebrower Firefoxbrowser launch

Browser Launch in Selenium

Go to maven repository and search for selenium java.

Copy the Maven dependency tag.

Paste it in the POM.xml

Righclick on POM.xml ->maven ->Update-> force update-> ok

Import the Webdriver and browser specific driver.

package org.selenium.basic;

import org.openqa.selenium.WebDriver;

import org.openqa.selenium.chrome.ChromeDriver;

public class BrowserLaunch {

public static void main(String[] args) {

// **TODO** Auto-generated method stub

WebDriver driver=new ChromeDriver();

driver.get("https://www.browserstack.com/");

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

}

}

Commands

* Driver Commands
* getTitle()- To get the title of URL
* getCurrentURL() -To get the URL of active webpage in browser
* getWindowHandle()- To get the handle id of current active web page.
* getPagesourse() – to get the HTML page source
* close()- To close the window

commands usage syntax eg for notes