**Selenium supporting Environment:**

1. Operating system Environment

MS windows

Linux

Mac

Etc.

1. Application environments
2. CUI based application.- selenium does not support

Selenium Does not support CUI based based application

1. Windows based application .(Mostly used) - selenium does not support.
2. Web based application. (Mostly used)- selenium support web based application.
3. Mobile based application.- Selenium support mobile based application which have web forms.
4. Programing Environments:

Java, C#, Python, Perl, Ruby, PHP

[NOTE: Selenium IDE does not support any programming language]

1. Browser Environments:

Mozilla Firefox, Safari, Google Chrome, MS internet Explorer etc.

**Selenium License:**

It s open source software. All selenium projects release under Apache 2.0 license. Anybody can modify the source code and distribute the code.

[NOTE: Selenium modified code are not allowed for sale]

**Testing framework:**

JUNIT Framework(outdated)

TESTNG framework(Advance and mostly use)

**TESTNG framework:**

TESTNG framework is use for Grouping test cases and generate the test reports.

Firebug and Firepath plugins (Mozilla Firefox) for inspecting elements in Firefox browser

[NOTE: Google Chrome and IE browsers has build in Developer tools (F12) to inspect elements.]

Eclipse IDE: To create and execute Java programs. Add selenium WebDriver .jar files to java and use WebDriver features.

**Selenium Environment Setup:**

1. Chose Selenium Tools.
2. Selenium WebDriver to create test cases
3. Java as programming language
4. TestNG framework as test runner.
5. Firebug and Firepath plugins for Mozilla browser to inspect elements

**Process to Configure Selenium :**

* Download Eclipse IDE and extract the Zip file
* Download java software and install
* Set environment variable path in the operating system properties.
* Download selenium WebDriver for example Java language(www.seleniumhq.org) and WebDriver .jar files to java project(Eclipse IDE)
* Download and install TestNG testing framework from Eclipse IDE

**Advantages of Selenium**:

1. Open source software
2. It supports many operating environments(windows, Linux, Mac)
3. It support varies browsers(IE, Mozilla, Chrome, Safari, opera)
4. It support various programming environments (java, Perl, Python, Ruby, PHP)
5. It support parallel test execution
6. IT use less hardware resources.

**Disadvantages of Selenium**:

1. It support only web based applications
2. Difficult to setup environment
3. Difficult to use.
4. Limited support for image based testing.

**UPT formally QTP is competitor of selenium which required license and only for windows environments. UTP support VBSCRIPT only and it has local and shared repositories.**