**Introduction to Selenium**

Selenium is an automation testing tool used to automate only web based application but not desktop based application

It is created by Jason hugginns in 2004

It is an open source automation testing tool i.e. it is available for free of cost.

It supports multiple browser and operating system.

Its support for android and iphone testing.

Now days we are using it to automate mobile based application using

Selenium ide is created in javascript.

Open source framework such as junit, testNG(next generation) can be used and write selenium test cases

**Components of Selenium**

* RC
* Web driver
* Ide(integrated development environment) work only on Mozilla Firefox.
* Grid(provide multiple test cases on multiple machines)

**Scripts can be created in different languages such as:**

1. Java
2. C#
3. PHP
4. Pearl
5. JavaScript
6. Ruby
7. python

**Selenium Requirements:**

1. Java
2. Ide
3. Firebug
4. Selenium- sileniumhq.org
5. Recommended version 2.53.1
6. Firepath-- a helping tool to detect elements

**Difference in QTP and IDE**

**QTP: -**

Functional Testing Tool -QTP has the feature for storing screenshot of each and every page navigated during the execution. So it can be used as a proof for completion of testing, and also we can refer the screenshots of previous executions if there is any need to refer them. Test report can be automatically written to a customized report page which will ensure accuracy of the report and also it can improve look of the report.

* It is licensed and expensive
* It supports Windows Platform only
* Supports IE & Firefox only
* Supports all kinds of File upload

**Selenium: -**There are four variants of Selenium, which can be used in isolation or in combination to create complete automation suite for your web applications.

1. Selenium IDE – Recording/Creating and enhancing scripts
2. Selenium Remote Control (RC) – Executing scripts
3. Selenium Web Driver (API) – Cross browser testing
4. Selenium Grid – Cross platform testing

* Selenium is open-source and portable
* Supports IE, Firefox, Safari and Opera
* Used only to automate web-based application
* Not available for file upload