

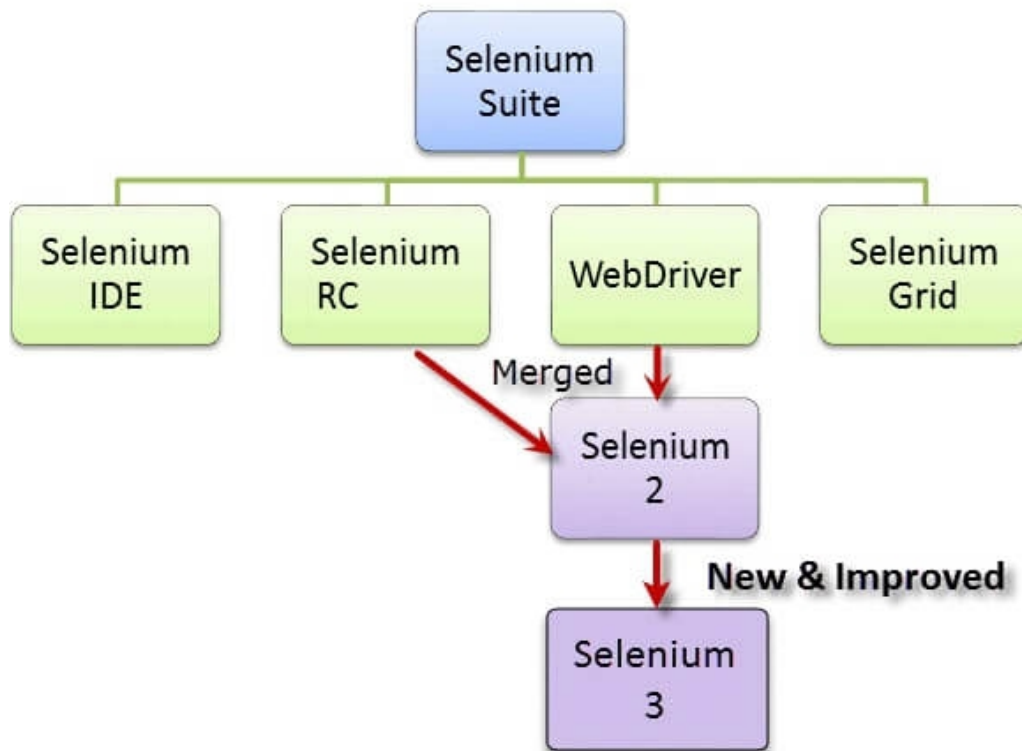
CASE STUDY ON SELENIUM

What is Selenium?

Selenium is a free (open-source) automated testing framework used to validate web applications across different browsers and platforms. You can use multiple programming languages like Java, C#, Python etc to create Selenium Test Scripts. Testing done using the Selenium testing tool is usually referred to as Selenium Testing.

Selenium Software is not just a single tool but a suite of software, each piece catering to different Selenium QA testing needs of an organization. Here is the list of tools

- Selenium Integrated Development Environment (IDE)
- Selenium Remote Control (RC)
- WebDriver
- Selenium Grid



At the moment, Selenium RC and WebDriver are merged into a single framework to form **Selenium 2**. Selenium 1, by the way, refers to Selenium RC.

Who developed Selenium?

Since Selenium is a collection of different tools, it had different developers as well. Below are the key persons who made notable contributions to the Selenium Project

Primarily, Selenium was created by Jason Huggins in 2004. An engineer at ThoughtWorks, he was working on a web application that required frequent testing. Having realized that the repetitious [Manual Testing](#) of their application was becoming more and more inefficient, he created a [JavaScript](#) program that would automatically control the browser's actions. He named this program as the "JavaScriptTestRunner."

Seeing potential in this idea to help automate other web applications, he made JavaScriptRunner open-source which was later re-named as **Selenium Core**.

Summary

- The entire Selenium Software Testing Suite is comprised of four components:
- Selenium IDE, a Firefox add-on that you can only use in creating relatively simple test cases and test suites.
- Selenium Remote Control, also known as Selenium 1, which is the first Selenium tool that allowed users to use programming languages in creating complex tests.
- WebDriver, the newer breakthrough that allows your test scripts to communicate directly to the browser, thereby controlling it from the OS level.
- Selenium Grid is also a tool that is used with Selenium RC to execute parallel tests across different browsers and operating systems.
- Selenium RC and WebDriver was merged to form Selenium 2.
- Selenium is more advantageous than QTP in terms of costs and flexibility. It also allows you to run tests in parallel, unlike in QTP where you are only allowed to run tests sequentially.