

Experiment No: 8

Generate Test sequences and validate using Selenium tool for given websites below:

Site	Website	Type
Amazon	Amazon.com	shopping
Flip kart	Flipkart.com	shopping
Railway reservation	Irctc.co.in	Ticket booking site
Train searching	Erail.in	Train searching

Selenium is one of the most widely used open-source Web UI (User Interface) automation testing frameworks. It enables testers to execute tests across different browsers, platforms, and languages.

Selenium is one-up concerning other test automation frameworks, as it provides compatibility with popular programming languages like Python, Java, JavaScript, C#, and Ruby.

components of Selenium:

As already stated, Selenium is a framework (i.e., it is not a single software but a suite composed of different components).

Selenium is composed of the following components:

1. Selenium IDE
2. Selenium WebDriver
3. Selenium Grid

Selenium IDE

Selenium IDE is basically a Record/Run tool that is available as a browser plugin for Mozilla Firefox and Google Chrome. You need not have any programming language experience to work with the IDE.

It follows a record-and-playback approach wherein you can record your test steps and export the tests in the preferred Selenium-supported programming language. These exported tests can then be used with Selenium WebDriver.

Selenium IDE in Selenium 4 is more than a playback & recording tool, the features of which can be leveraged to make the most out of Selenium automation testing.

Selenium WebDriver

Selenium WebDriver is an enhanced version of Selenium RC and overcomes the limitations faced in Selenium RC. It controls the browser by direct communication. It has a faster execution time as compared to IDE and RC.

Selenium RC and WebDriver were merged into one single unit known as Selenium WebDriver 2.0. Over time it has been enhanced for more features and functionalities. In Selenium 3, the JSON Wire protocol was the primary mode of communication between the test code and web browser.

Selenium Grid

Selenium Grid enables the users to perform parallel test execution. It is used along with Selenium RC to run parallel tests across different browsers and machines.

Users can run simultaneous tests in multiple environments, thereby saving a lot of time and expediting the time to market.

Steps to perform Experiment:

Below is a step by step process on how to download and install Selenium IDE for Firefox:

Steps 1) Open Firefox Add-ons & Download Selenium IDE

Launch Firefox and navigate to <https://addons.mozilla.org/en-US/firefox/addon/selenium-ide/>. Click on Add to Firefox

Steps 2) Click on Add

Wait until Firefox completes the download and then click “**Add.**”

Steps 3) Click on Ok

Once install is complete, you will get a confirmation message. Click “**OK**”

Steps 4) Click & Open Selenium IDE

Click on the Selenium IDE icon

Selenium IDE will open



