

## Experiment - 6

### ★ Introduction of Selenium and first Test Case.

Selenium is a free 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.

### What is Selenium IDE?

Selenium integrated Development (IDE) is the simplest framework in the Selenium Suite and is the easiest one to learn. It is a Chrome and Firefox plugin that you can install as easily as you can with other plugins.

Automation Testing tools which are used for functional automation:

- Qwilt Test professional, provided by HP.
- Rational Robot, provided by IBM.
- Coded UI, provided by Microsoft
- Selenium, Open source
- Auto IT, open source.

Automation Testing tools which are used for non-functional automation:



- Local Runner, provided by HP.
- JMeter, provided by Apache
- SoapUI, provided by jacobse.
- Acunetix, provided by Acunetix

### Why Automated Testing!-

- Automated Testing has specific advantages for improving long-term efficiency of any software.
- Automated Testing tools are able to playback pre-recorded and pre-defined actions.
- Automation testing supports frequent regression testing.
- It provides rapid feedback to developers.
- It provides disciplined documentation of test cases.
- Less error prone as compared to Manual testing.

### ★ Selenium IDE - installation

- Launch Mozilla Firefox browser
- Open URL <https://addons.mozilla.org/en-us/firefox/addon/selenium-ide/> It will redirect you to the official add-on page of ~~firefox~~ Firefox.
- Click on "Add to Firefox" button
- A pop-up dialog box will be appeared asking you to add Selenium IDE as extension to your Firefox browser.
- Click on "Add" button
- Restart your Firefox browser.



- Go to the top right corner on your firefox browser and look for the Selenium IDE icon.
- Click on that icon to launch Selenium IDE.

Selenium IDE is divided into different components, each having their own features and functionalities. We have categorized seven different components of Selenium IDE, which includes:

- 1) Menu Bar
- 2) Tool Bar
- 3) Address Bar
- 4) Test Case pane
- 5) Test Script Editor Box
- 6) Start/Stop Recording Button
- 7) Log, Reference pane

## 1) Menu Bar

- Project Name → It allows you to rename your entire project
- Open project → It allows you to load any existing project from your personal drive.
- Save project → It allows you to save the entire project you are currently working on.

## 2) Tool Bar

- Speed Control option → It allows you to control the



- execution speed of your test cases.
- Step feature → It allows you to "step" through a test case by running it one command at a time. Use for debugging test cases.
  - Run Test : It allows you to run the currently selected Test.
  - Run All: It allows you to run the entire test suite when a test suite with multiple test cases is loaded.

3) Address Bar : The base URL address bar remembers the previously visited website so that the navigation becomes easy later on.

4) Test Case Panel : It provides the list of all recorded Test Cases at the same time. Under the test case panel so that user could easily shuffle between the test cases, you can see the test execution result summary which includes the pass/fail status of various Test Cases.

5) Test Script Editor Box : It displays all of the test scripts and user interactions that were recorded by the IDE. Each user interaction is displayed in the same order in which they are performed.



6 - Start/Stop Recording Button:- Record Button records all of the user actions with the browser.

7 - Log, Reference pane  
The log pane displays the runtime messages during execution. It provides real-time updates of the actions performed by the IDE. The reference pane displays the complete details of the currently selected selected command in the editor.

### ~~Start~~ Selenium IDE - First Test Case

The entire test script creation process in Selenium IDE can be classified into three steps:

- 1) Recording (recording user interactions with the browser)
- 2) playing back (executing the recorded script)
- 3) saving the test suite

#### ~~Recording~~

- Launch firefox browser
- Click on the Selenium icon present on the top right corner on your browser.
- Rename the project as "Demo Test"
- Rename the test case as "Demo-test"



Click on the "Start Recording" button present on the right corner on the IDE to start recording the test case.

→ go to your firefox browser and open URL:  
www.goyg.com

→ It will redirect you to the google search engine page.

→ Type "Machine learning tutorial" in the google search box.

→ Click on the link

<http://www.simplilearn.com/tutorials/machine-learning-tutorial>

→ It will redirect you to the javaTpoint java tutorial web page. Meanwhile, you will get notifications of the actions performed by the IDE on the extreme right corner of your web browser.

→ Now, go the IDE and click on the "Stop Recording" button to stop recording your actions further.

→ The Test Editor box now contains the list of all of your interaction with the browser.



→ Now, we will proceed to the next step which includes executing the recorded script.

2.) playing Back

→ click on "The Run Current Test" button present on the tool bar menu of the IDE.

It will execute all of your interactions with the browser and gives you an overall summary of the executed test script.

→ The Log pane displays the overall summary of the executed test scripts.

3. Saving the test-suit

→ click on the Save button present on the extreme right corner of the menu bar.

→ Save the entire test suit as "Demo test".

→ The Test suit can be found at the location provided in the above steps. Note that the test script is saved in side format.



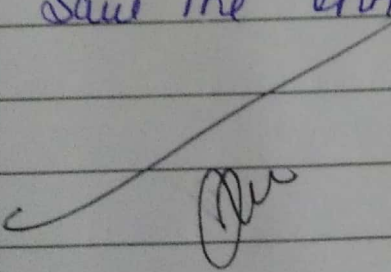
Experiment - 7

perform login test with Selenium.

- 1) → Launch ~~firefox~~ chrome browser.
- 2) Click on the Selenium icon present on the top right corner on your browser.
- 3) It will launch the default interface of Selenium IDE.
- 4) go to your chrome browser and open URL: <https://www.gmail.com>.
- 5) Enter the project name as "Login Test".
- 6) Enter the project name as "Test Case 1".
- 7) Click on the "Start Recording" button to start the recording of the test case.
- 8) now, click on the login button located on the website.
- 9) fill in the login Credentials and click on the login button. Meanwhile you will get the notifications of the actions performed by IDE at the extreme right corner of your browser.
- 10) once you get logged-in, it will redirect you to your account.
- 11) Click on the logout button.
- 12) now, go the IDE and click on Stop Recording button to stop recording the test case.



13. Click on the "Run all Current-Test" button present on the tool bar Menu of the IDE. It will execute all of your interactions with the browser and gives you an overall Summary of the executed test scripts.
14. The log pane displays the overall Summary of the executed test scripts.
15. Click on the same button present on the extreme right ~~corner~~ corner of the Menu bar.
- 16.) Save the entire test Suite as "Login Test".

Pur