**Selenium with Java**

**Duration: 3 Days**

**Pre-Requites:**

* Core Java
* Java 8 new features

**Course Objectives:**

* Upon training completion, participants will be ready to automate applications.

**Certification Link:**

* None

**Pre- Training Udemy Course Link:**

<https://www.udemy.com/course/automate-tests-using-selenium-webdriver-with-java-cucumber/>

**Post- Training Udemy Course Link:**

<https://www.udemy.com/course/selenium-real-time-examplesinterview-questions/>

**Lab Setup:**

* Windows Machine
* RAM: 8 GB
* JDK 1.8
* Eclipse
* Selenium libraries

**Course Outline:**

**Day 1:**

1. **Selenium WebDriver Components**

Introduction to Selenium WebDriver

Difference in RC and WebDriver

Features of Selenium WebDriver

Difference between WebDriver2.0 and 3.0

1. **Environment for Selenium WebDriver**

Introduction to Eclipse

Introduction to FireBug

**Practicals**: chropath

Introduction to XPath, CSSpath

**Practicals**: XPath Exercises

**Practicals**: CSSpath Exercises

**Practicals**: Security and Performance Testing using FireBug

1. **Process to Create Project and Create Selenium WebDriver Scripts**

**Practicals**: Create scripts to Automate Gmail Test Cases

**Practicals**: Create scripts to use Retrieve value from Web Site

**Practicals**: Create scripts to handle pop-up dialogs

**Practicals**: Create scripts to work with iFrames

**Day 2:**

1. **Selenium WebDriver Project – Build Selenium Java Scripts**

**Practicals**: Build script to automate Live Web site

Create scripts to emulate user interaction with Web site

* Typing text
* Taking action on an existing web element
* Observing if web element is accessible on Web site
* Working with web elements that have same name or id
* Working with web elements that have no name or id
* Navigating across web links
* Navigating across web pages
* Browsing Other sites and Returning to previous sites
* Browsing Other sites and Returning to specific site
* Create scripts to access within a Web Table

1. **Selenium WebDriver Project – Build Selenium Java Scripts**

Synchronization

* Conditional Synchronization
* Unconditional Synchronization
* Implicit and Explicit Wait

1. **Implementation of Action, Select, Random, Alert Class**

**Practicals**: Build scripts to access web elements in a Context-Driven menu (Runtime generated menu)

**Practicals**: Build scripts drag-drop (Runtime generated list of items in drop-drop list)

**Day 3:**

1. **Capture Snapshot of Web site during script Execution**

**Practicals**: Build script using Java and Selenium to capture screen

1. **DataDriven Tests using Selenium, Java, Excel**

Overview of variety of Test-Data sources

Introduction to POM Framework

**Practicals**: Reading data from Test-Data source

Build script to parse and extract data from Excel Test-Data source

Build script to parse and extract data from Text file Test-Data source

Build POM Framework

1. **Developing reusable script**

**Practicals: End-to-End Project using POM**

1. **Introduction to TestNG**
2. **Handling of multi-browser automation**

How to execute the test on different browser

Automatically downloading driver executable from WebDriverManager

Handling child browser and parent browser in selenium

1. **Working with popup**

Handling alert

Handling poupup from javascript

Handling authentication popup

Handling file download popup

Handling file upload popup

- Overview of AutoIT, Robot class for non-web object handling