

## Scope:

This course is a soup-to-nuts course that will teach you everything you need to configure Selenium and to automate project and how to design and manage test scripts. Learn how to automate sanity test cases, Regression test cases and how to provide automation estimates to one project.

## Objectives for Fresher:

To understand the Automation Tool and the automation process of the organization. Hands – on training on the tool to understand how to automate the test cases

## Objectives for Experience Resource:

To understand the process of Automation

To write the test scripts by using Selenium and to maintain the scripts

Hands – On Training on Configurations, Installations, Test scripts, Reusable scripts, Validations

## Course Coverage:

### Module: 1 – Introduction to Selenium, Selenium Components, Configuration of IDE & Dev Scripts

- Introduction
- What is automation testing
- When best to go for automation
- Advantages of Automation
- Criteria for Automation
- Introduction to Selenium
- What is Selenium
- Use of selenium
- When selenium can be useful in testing

- Features of Selenium
- Differences between Selenium and QTP
- Selenium Components
  - Selenium IDE
  - Selenium RC
  - Selenium Grid
- Recording the script
- Running the script script
- Object Identification
- Difference between Testcase and test suit
- Languages supported while Recording

- Synchronization in Selenium IDE
- Testing Vs Selenium IDE
- When to use Selenium IDE
- How to run the recorded script against other browsers
- Why companies are not using Recording tools

## **Module: 2 - Creating the Environment for Selenium RC,**

- Creating generic scripts in Selenium
- Creating scripts by using Functions
- Running the scripts in Eclipse
- Inheritance
- Browser commands with examples
- Interactive commands with examples
- Information commands with examples
- Validation commands with examples
- How to take data from excel sheets
- Why should we use excel sheets
- How to take large no of data from excel sheets
- How to export data to an excel sheets
- Export large no of data to an excel sheet
- How to export results after completion of executing the script

- How to use Eclipse
- Debugging the script
- Maintaining synchronization Points
- How to handle Popups and alert messages
- Recognizing Similar Elements
- Working with Table Elements
- Connecting to Database

## **Module: 3 - Developing reusable script**

- Validations
- What is validation
- What is the use of validation in Automation testing
- When to use validation in realtime
- How to use validations

## **Module: 4 - Core Java Fundamentals**

- Java Programming Language Keywords
- Class and Object
- Data Types
- Array Declaration, Construction and Initialization
- Flow Control, Exceptions, and Assertions
- Writing Code Using If and Switch Statements
- Writing Code using Loops
- Handling Exceptions
- Working with the Assertion Mechanism
- Oops

### **Module: 5 -Frameworks – Junit, TestNG**

- Proving it works
- Starting from scratch
- Understanding unit testing Frameworks
- Setting up JUnit
- Testing with JUnit
- What is TestNG
- Create TestNG.xml file
- Integrate the Selenium Scripts and Run from TestNG
- Reporting Results & Analyze
- Run Scripts from Multiple Browsers

### **Module: 6 - Object repository, Locators**

- What is object repository
- How to use object repository in Framework
- What is the use of maintaing object repository
- Types of creating object repository
- How to use XPath
- How to use DOM
- How to use Key Commands

### **Module: 7 - Selenium 2 / Web Driver**

- Selenium 2.0 Features
- The Selenium Server – When to Use it

- Setting up a Selenium – Web Driver Project
- Migrating from Selenium 1.0
- Getting Started with Selenium Web Driver
- Introducing Web Driver's Drivers
- Commands & Operation
- Web Driver backed Selenium RC
- Programs on Web Driver
- Programs on Web Driver Backed Selenium RC

### **Module: 8 - Automation Life Cycle**

- What is a Framework
- Types of Frameworks
- Modular framework
- Data Driven framework
- Keyword driven framework
- Hybrid framework
- Use of Framework
- How develop the framework
- Integration of the framework
- How execute the scripts from framework