

**Duration – 7 days**

## **SELENIUM BASIC TO ADVANCED COURSE CONTENTS**

### **Day - 1**

#### **Module 1: Selenium Introduction**

- Test Automation Introduction.
- Current Tools in the Market
- Open Source Vs Licensed Software (Selenium Vs QTP)
- Selenium Introduction
  - What is Selenium and Why Selenium and History of Selenium?
- Introduction of Selenium Components IDE, SELENIUM RC and WEB DRIVER
- Java in Selenium

#### **Module 2: Selenium IDE Introduction**

- What is **IDE**
- Installing IDE
- Recording your first test with Selenium IDE
- Verification and Assertions
- Adding Selenium IDE comments
- Adding Selenium IDE commands
- Introducing Waits
- Storing elements from the page
- Debugging tests
- Creating test suits and Test cases
- Handling drop down in IDE and various input boxes
- Hands-on Exercise

- **Locators**

- ✓ Installing Firebug and Fire path
- ✓ Finding IDs of elements on the page with firebug and firepath
- ✓ Identifying Web Elements using ID, Name, Link text
- ✓ Locating by CSS Selectors

- Tag and ID
- Tag and Class
- Tag and Attribute
- Tag Class and Attribute
- Inner text

- ✓ Locating by DOM

- getElementById

- getElementByName
  - dom: Name
  - dom: index
- ✓ Hands-on-Exercise

- **User Extensions, Alerts, Pop-ups**

## Day - 2

### Revision of IDE

- ✓ Hands-on-Exercise IDE

### Module 3: Use of Java in Selenium

- Setup Java environment – Download JDK, JRE and Setup eclipse
- Core Java programming concepts
- Collections
- Error handling

## Day - 3

### Module 4: Selenium RC

- Selenium RC and architecture
- Starting and stopping server
- Difference between RC and IDE
- Working of RC
- How to create first test with Selenium RC
- Running test with defaultSelenium Class
- Firebug and firepath use
- Xpath types and use of Xpath in RC
- Configuring Javadoc in eclipse
- Handling input box, buttons, radio buttons, checkboxes
- How to get text of links
- Drop down list handling – a-select the value- all value
- How to read title of page using RC
- Extracting Data from Web table cells
- Checking if an element/object is present on the page or not
- Handling JavaScript alert message boxes
- Concept of window ID
- Extracting window IDs with Selenium Object reference
- Tabbed browsing and handling tests with selenium RC
- Handling popups, performing actions in pop up window

- Closing popup windows
- What is a web table and Dynamic web table?
- Finding number of rows in web table
- Finding number of columns in Webtable
- Live example on printing all the values in a dynamic Webtable using Selenium RC
- Get Table function in Selenium RC
- Hands on exercise
- Convert selenium IDE tests in RC

## Day – 4

### JUnit Framework

- What is JUnit
- Installing JUnit in Eclipse
- Annotations
- Running a Test using JUnit Assertions
- Parameterization concept in JUnit with practical
- How to run test cases in a batch
- Hands-on Exercise

### TestNG Framework

- What is **TestNG**
- Configuring **TestNG** in Eclipse
- Annotations
- Test Suites
- Creating first test case with TestNg
- TestNg sequencing and prioritizing
- Skipping a test
- Running a Test using **TestNG** Assertions / Error Reporting
- Parameterization concept in TestNG with practical
- Parameterization with the help of @Parameters annotation
- Parameterization with the help of @DataProvider annotation
- How to create xml file in TesNG
- How to test cases in a batch
- TestNg with webdriver

## Day – 5

- Apache POI introduction
- Adding POI jar files in project
- How to read/write data in excel file with apache POI
- Log4j API introduction
- Adding log4j jar files in project
- How to create log4j.xml file in project root folder
- Hands on exercise
- Implemented Apache POI, log4j, TestNg and webdriver in Data Driven Testing project

## Day – 6

### Module 5: Selenium Web Driver

- Selenium Web Driver Introduction
- Features of a Web Driver
- Web Driver Vs RC
- Download and Configure Web Driver with Eclipse
- Configuring Javadoc with eclipse
- First Test case with web driver
  - Open and Close Browser
  - Cross Browser Testing – Firefox, IE ,Chrome, HtmlUnitDriver
- Web Driver commands
- Wait commands
- Browser navigation commands in WD
- Switch commands use in WD
- UI elements ,Locators
- Identifying Web Element using id, name, link text, class, xpath, css
- Handling various Web Element using Web Driver like dropdown list, text boxes, check boxes, radio buttons etc.
- How to print all the links present on a web page using Web Driver
- How to handle dynamic web tables
  - **Advanced Selenium 2.0**
  - Desired capabilities class working
  - Creating and Use of proxy server with the help of desired capability class
  - Mouse movement with the help of action class
  - How to drag and drop the objects with the help of action class

## **Day -7**

### **Introduction and working of Selenium Grid**

#### **Module 6: Testing Frameworks**

- What is framework
- Types of frameworks
- Data driven framework
- Keyword driven framework
- Hybrid driven framework
- Page object model Introduction
- Selenium Automation framework