

Selenium with Java

Duration -

- Approx. 48 hrs.
- Weekend Batch : 8 Weekends

1. Introduction to Automation

- What is automation testing
- Advantages of Automation Testing
- How to learn any automation tool
- Types of Automation tools

2. Introduction to Selenium

- What is Selenium
- Use of Selenium
- Features of selenium
- Difference between Selenium and QTP

3. Selenium Components

- Selenium IDE
- Selenium - Web Driver
- Selenium Grid
- Selenium Appium

4. HTML & JavaScript

- Introduction to Scripting
- Statements
- Alert
- Element validation

5. Xpath and CSS

- Introduction to Firebug
- Downloading and installing of Firebug
- Downloading and installing of Xpath
- How to identify the Xpath for an particular element
- Identifying objects using CSS

6. JAVA Introduction

- Lesson Objectives
- Java Definition
- Java Virtual Machine (JVM)
- Working of Java
- Running a Basic Java Program
- Running a Basic Java Program in NetBeans IDE

7. BASIC JAVA SYNTAX

- Data Types in Java
- Variables in Java
- Naming Conventions of Variables
- Type Casting
- Operators
- Mathematical Operators
- Unary Operators
- Relational Operators
- Logical or Conditional Operators
- Bitwise Operators
- Static Versus Non Static Variables
- Statements and Blocks of Code
- Flow Control
- If Statement
- Variants of if Statement
- Nested If Statement
- Switch Statement
- Loop Statements
- Break and Continue Statements
- Basic Java Constructs
- Arrays

8. JAVA CLASSES And METHODS

- Classes
- Objects
- Methods
- Access Modifiers

9. Object Oriented Programming

- Class and Object
- Data Types
- Array Declaration, Construction and Initialization
- Encapsulation
- Polymorphism
- Inheritance
- File IO
- Collection

10. Advanced Selenium 3.XX – Web Driver

- Introduction to selenium 3.00
- Advantages of web driver
- Web Driver IDE
- Installation / Configuring Eclipse for Web Driver
- Identifying the elements in Web Driver Using Id, Name, Xpath ,Dom and CSS
- Working with Different drivers like HtmlUnit driver, Firefox Driver, Chrome Driver and IE Driver etc...
- Creating the generic scripts in Web Driver
- Screenshot, working on dynamic element.
- HTML & JavaScript
- Executing a JavaScript using Web Driver
- Mouse Action
- Handling new Browser window.
- Creating the scripts by using functions
- Web Driver commands with examples
- Working with excel sheets using Web Driver
- Web Driver with TestNG / Junit

11. Usage of TestNG and Junit in Selenium

- Introduction to TestNG
- Why TestNG
- Setting up TestNG
- Working with TestNG
- Advantages of TestNG over Junit
- Exploring TestNG Features

- How to Use TestNG Annotations
- Data Driven Testing using TestNG
- TestNG Execution Report
- TestNG Results output folder walk through
- TestNG Reporting features

12. Selenium Grid

- What is Selenium Grid?
- When to Use Selenium Grid
- Setting up Grid - Hub and Nodes?
- Running a test suite parallel on different nodes(machines) and browsers.
- Advantages of Selenium Grid

13. Maven Build Tool

- Selenium Integration with Build Tool: Maven
- Integration with Advanced Reporting Mechanism
- Integration with Continuous Integration Tool: Jenkins and Hudson
- Installation of Maven
- Understanding Maven Structure
- Creating a Maven Project in Eclipse
- Maven Build Cycles
- Sample Demo of Build Session of Maven Project
- Understanding Maven Dependencies
- Understanding Maven Repositories
- Demo of Maven Eclipse Integration

14. Automation Framework

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

15. Selenium Design Patterns

- What is Design Patterns
- Use of Design Patterns in Automation Framework Design.
- Page Object design pattern
- Page Factory design pattern
- Examples & Advantages

16. Continues Integration / Jenkins

- What is CI and How we use it in Automation
- Configuration of Jenkins.
- Run a test suite using Jenkins
- Advantages of CI.

17. Cucumber Framework

- Introduction to Cucumber
- Gherkin – Business Driven Development
- Setting Up Cucumber with Selenium in Eclipse
- Installing Cucumber Eclipse Plugin
- Downloading Cucumber for Eclipse
- Configuring Eclipse with Cucumber
- Cucumber Selenium Java Test
- Exploring Feature File
- TestNG Runner Class
- Gherkin Keywords and Step Definition