

SELENIUM TRAINING COURSE CONTENT

SECTION 1 : INTRODUCTION

- What is automation testing?
- When Automation Testing is needed?
- What is the use of automation testing?
- Different Automation Tools available in the Market.
- What is the difference between Selenium and QTP?

SECTION 2 : BASICS OF JAVA – INTRODUCTION OF JAVA

- Java Installation
- Introduction to all predefined packages
- More about JVM, JRE & JDK
- Types of variables
- Data Types in Java



Real-time Practicals

1. *Implementing Calculator Functionality*

SECTION 3 : OBJECT ORIENTED PROGRAMMING CONCEPTS

- Introduction to OOPS
- Class
- Object
- Local, Instance and static variables
- Constructors
- Methods
- Arrays
- This keyword
- Final Keyword
- Inheritance and Types
- Working with super classes and subclasses

- Super Keyword
- Using types of polymorphism such as overloading, overriding, and dynamic binding
- Abstraction
- Encapsulation
- Abstract classes
- Interfaces
- String Methods
- Collections
- Exception Handling



Real-time Practicals

1. Java Logical Programs from Interview Point of View .
2. Interview Questions Discussion

SECTION 4 : I/O STREAMS

- I/O using Java
- Files (Create/Read/Write operations on files)



Real-time Practicals

1. Reading Values from the File and Perform Java Logical Programs.

SECTION 5 : INTRODUCTION TO SELENIUM

- What is Selenium?
- Advantages of Selenium
- Architecture of Selenium WebDriver

SECTION 6 : COMPONENTS IN SELENIUM

- IDE Overview
- RC Overview
- Selenium-Grid
- Selenium Web Driver/Selenium 3.0

SECTION 7 : SELENIUM IDE

- Installing IDE
- IDE icons
- Recording your first test with IDE
- IDE Context Menu
- Assert
- Verify
- Adding IDE comments
- Write your own IDE script without record and playback

SECTION 8 : SELENIUM WEB DRIVER

- Selenium Internal Architecture
- Downloading web driver Jars configuring in eclipse
- Drivers for Firefox, IE, Chrome, Opera, Safari and HTML Unit Driver.
- What is the difference between RC and WD?
- Installing and Configuring Eclipse for Web Driver

SECTION 9 : LOCATORS IN SELENIUM

- ID
- Name
- Class Name
- Link Text
- Partial Link Text
- Path



Real-time Practicals

1. Interview Questions Discussion.

SECTION 10 : EXPLORING WEB DRIVER

- Edit box
- Link
- Button
- Checkbox
- Radio Button
- Drop Down Box
- Select value
- Display all values
- Select values step by step

- Capture screenshots
- Synchronization Commands In Web Drive
- Implicit wait
- Explicit wait
- Web Driver wait
- File uploads and File downloads
- Handling alerts
- Handling confirmation messages
- Keyboard actions
- Mouse actions
- Handling I frames
- Handling multiple tabs
- Handling popups
- Preparing web driver test cases using customized x-path
- HandlingWebTables



Real-time Practicals

1. *Performing End to End Scenarios in Ecommerce Application.*
2. *Performing End to End Scenarios in User Registration Application.*
3. *Handling Web Tables in the Live Score*
4. *Performing Functionality Test in the Banking Application.*

SECTION 11 : DATA DRIVEN FRAMEWORK

- Interacting with Database
- Interacting with Property File
- Interacting with XML
- Interacting with Excel



Real-time Practicals

1. *Retrieving Values from the Property file and perform End to End Scenarios in Live Projects*
2. *Reading and Writing Values from the Excel File and perform End to End Scenarios in Live*

SECTION 12 : TESTNG FRAMEWORK

- How to Install TestNG plug-in in Eclipse?
- TestNG Annotations
- TestNG sample script
- Selenium testing script from scratch
- Creating Test suites using TestNG

- Reports generation using TestNG
- Parameterized test cases using TestNG framework
- Preparing TestNG Parallel Suite
- Running test multiple times, depends on Methods, Grouping
- TestNG Listener Sample Program



Real-time Practicals

1. *Implementing the Live Project Using TestNG*

SECTION 13 : BDD – CUCUMBER

- How to Set up Cucumber in Eclipse
- About Feature, Step Definition and Runner Class
- How to integrate Testng with Cucumber
- Gherkin Keywords
- Cucumber Options
- Parameterization in Cucumber
- Data Driven Testing using Examples Keyword and Data Table

SECTION 14 : PAGE OBJECT MODEL DESIGN PATTERN

- Why Page Object Model & When it will be effective
- POM Design Rules
- POM Implementation of Rules
- Implementation of testcases using POM framework



Real-time Practicals

1. *Developing the TestNG Framework using POM Design Pattern in the Live Project.*

SECTION 15 : REPORTING

- Installing Extent Report Plugin in Eclipse
- Methods in Extent Report
- Extent Report Implementation



Real-time Practicals

1. *Generating the Live Report which Include Failure Screenshots*

SECTION 16 : CODE REPOSITORY

- Git Commands (Init,Git Commit,Git Pull,Git Push ..)
- Git Hub Implementations

SECTION 17: BUILD TOOLS

- Maven Features
- Maven Build Process and Dependencies
- Maven Automation Project Build
- Best Practices

SECTION 18 : CI TOOLS

- Install Jenkins
- Setup Maven Project in Jenkins
- Schedule the build
- Best Practices

REAL TIME PROJECT IMPLEMENTATION:

- Commerce Project
- Travel Booking
- Sample Banking Application