

Introduction to Automation

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

Introduction to Selenium

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

Selenium Components

- Selenium IDE
- Selenium Core
- Selenium RC
- Selenium Grid
- Selenium 2.0 – Web Driver

Selenium IDE

- Selenium Overview
- Selenium IDE Introduction
- Downloading and Installing Selenium IDE
- Recording and Running a Simple Test
- Selenium IDE – Features
- Installing Useful Tools for Writing Tests
- Selenium Concepts
- Selenium Commands
- Verifying Page Elements – Assertions and Verifications
- Wait Commands
- Object Identification
- Element Locators
- Regular Expression patterns
- Selenium Test Runner
- Using Regular Expressions in Selenium IDE
- Creating Selenium Test Suites

- How to run the recorded script against other browsers
- Why companies are not using recording tools
- Limitations of Selenium IDE

Selenium Core

- Selenium Core Overview
- Installing Selenium Core
- Running Selenium Core Test Suites

Core JAVA

- Installing Java
- Installing Eclipse
- Features of Java
- Why Java for Selenium
- First Java program
- Data types in Java
- String class
- if statements
- Conditional and concatenation operators
- While Loop
- For Loops
- Practical Examples with loops
- Usage of loops in Selenium
- Creating Objects in Java
- Local Variables
- Global Variables
- Why is main method static?
- Constructors
- Concept of Inheritance
- Example on inheritance
- Interface
- Overloading and Overriding Functions
- Creating Packages
- Accessing modifiers Public, Private, Default, Protected
- Exception handling with try catch block
- Final and Finally
- Reading Properties File in Java

About Eclipse

- Installing Eclipse
- Creating Simple Project in eclipse
- Eclipse and Selenium together
- Importing and Exporting
- Debugging using Eclipse

Fire Bug, Xpath and CSS

- Using browser tools for inspecting elements and page structure
- Locating an element using the findElement method
- Locating elements using findElements method
- Locating links
- Locating elements by tag name
- Locating elements using CSS selectors
- Locating elements using Xpath
- Locating elements using text
- Locating elements using advanced CSS selectors
- Using jQuery selectors
- Locating table rows and cells
- Locating child elements in a table

Working with Selenium API

- Checking an element's text
- Checking an element's attribute values
- Checking an element's CSS values
- Using Advanced User Interactions API for mouse and keyboard events
- performing double-click on an element
- performing drag-and-drop operations
- Executing JavaScript code
- Capturing screenshots with Selenium WebDriver
- Capturing screenshots with RemoteWebDriver/Grid
- Maximizing the browser window
- Automating dropdowns and lists
- Checking options in dropdowns and lists
- Checking selected options in dropdowns and lists
- Automating radio buttons and radio groups
- Automating checkboxes

Controlling the Test Flow

- Synchronizing a test with an implicit wait
- Synchronizing a test with an explicit wait
- Synchronizing a test with custom-expected conditions
- Checking an element's presence
- Checking an element's status
- Identifying and handling a pop-up window by its name
- Identifying and handling a pop-up window by its title
- Identifying and handling a pop-up window by its content
- Handling a simple JavaScript alert
- Handling a confirm box alert
- Handling a prompt box alert
- Identifying and handling frames
- Identifying and handling frames by their content
- Working with IFRAME

How to use TestNG in Selenium

- Introduction to TestNG
- Why TestNG
- Setting up TestNG
- Working with TestNG
- Advantages of TestNG
- Exploring TestNG Features
- How to Use TestNG Attributes
- Data Driven Testing TestNG
- TestNG Execution Report
- TestNG Results output folder walkthrough
- TestNG Reporting features

Auto IT Script for handling windows

- Installing Auto IT
- Auto IT Overview
- Why Auto IT?
- Auto IT Script Examples
- Compiling Auto IT scripts

- How To Use Auto IT scripts in Selenium RC

Selenium RC

- Installing Selenium RC
- Selenium RC Overview
- Starting and Stopping Selenium Server
- Creating the generic scripts in selenium
- Creating the scripts by using functions
- Selenium Client Libraries
- 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 data from DB
- Debugging the scripts
- Maintaining the synchronization points
- How to handle Pop-up's and alert messages

Selenium Grid

- Selenium Grid 2
- Selenium grid overview
- Selenium grid scripts

Interview Questions on

- **Selenium IDE**
- **Selenium RC**
- **Selenium WebDriver and Automation Testing**

Automation Framework & Live Project

- **Developing Automation Framework**
- **Live project demo**