

Selenium Testing



e-Learning Course

Help Desk: +91 8680961847

www.zetlantech.com

Zetlan Technologies



COURSE MODULES

Module 1: Introduction to Automation Testing

- What is Automation Testing?
- Manual vs. Automation Testing
- Benefits of Automation Testing
- Types of Automation Testing
- Introduction to Selenium

Module 2: Selenium WebDriver Basics

- Overview of Selenium Suite (IDE, RC, WebDriver, Grid)
- Setting up the Selenium Environment
- Installing WebDriver and Browser Drivers
- Writing First Selenium Test Script
- Understanding WebElements & DOM

Module 3: WebElement Identification Techniques

- Locators in Selenium:
 - ID, Name, Class Name
 - Tag Name, Link Text & Partial Link Text
 - CSS Selectors, XPath (Absolute & Relative)
- Working with WebElements:
 - Click, SendKeys, Clear
 - GetText, GetAttribute, GetCSSValue
 - Handling Checkboxes, Radio Buttons, Drop-downs

Module 4: Handling Advanced UI Elements

- Handling Alerts, Pop-ups, and Modal Dialogs
- Handling Frames & iframes
- Handling Multiple Windows
- Mouse & Keyboard Actions (Actions Class)
- Implicit & Explicit Waits

Module 5: Selenium Frameworks & Design Patterns

- Page Object Model (POM)
- Page Factory
- Data-Driven Framework
- Hybrid Framework
- Keyword-Driven Framework

Module 6: Test Automation with Selenium & Java/Python

- Setting Up Java/Python for Selenium
- Using TestNG / JUnit / Pytest for Test Execution
- Assertions & Reporting in TestNG
- Parallel Execution & Parameterization

Module 7: Handling Web Tables & Dynamic Elements

- Extracting Data from Web Tables
- Handling Dynamic Elements
- Handling Captchas & Security Measures

Module 8: Working with Selenium Grid

- Introduction to Selenium Grid
- Setting up Hub & Nodes
- Running Tests in Parallel Across Browsers

Module 9: Integration with CI/CD Tools

- Introduction to CI/CD in Testing
- Integrating Selenium with Jenkins
- Running Selenium Tests in Docker Containers

Module 10: Reporting & Logging in Selenium

- Generating Test Reports
- Log4j for Logging in Selenium
- Extent Reports & Allure Reports

Module 11: Handling API Testing in Selenium

- Introduction to API Testing
- Using RestAssured with Selenium
- Validating API Responses

Module 12: Common Challenges & Best Practices

- Debugging & Troubleshooting Selenium Tests
- Handling Synchronization Issues
- Selenium Best Practices