

QA

INTERMEDIATE

4 DAYS

UI Automation Testing with Selenium (C#)

Build a strong foundation in UI automation testing using Selenium with C# by mastering WebDriver setup, element handling, and synchronization techniques. Learn how to design and execute reliable UI tests through hands on practice and real world scenarios tailored to business requirements.

Why Selenium (C#)?

Reliable UI automation

Automate browsers with Selenium and C#.

Clear reporting

Integrate frameworks and logs for debugging.

Maintainable design

Use POM and solid waits for dynamic UIs.

CI readiness

Wire suites into delivery pipelines.

What you'll be able to do

- ✓ Introduction to UI Automation Testing with Selenium in C#
- ✓ Understanding the basics of UI automation testing with Selenium in C#.
- ✓ Setting up Selenium WebDriver in C# for UI automation testing.
- ✓ Writing and executing basic UI automation tests with Selenium in C#.
- ✓ Locating web elements with Selenium in C#.
- ✓ Handling user interactions and events with Selenium WebDriver in C#.
- ✓ Synchronization in Selenium WebDriver in C#.
- ✓ Hands-on practice with real-world examples and case studies.
- ✓ Customized training modules based on the company's specific requirements and business goals.

Who this is for

- Software testers
- Developers
- Manual Testers
- QA engineers
- Software developers

Curriculum

01 Introduction to UI automation testing

- What is UI automation testing?, Benefits of UI automation testing, Overview of Selenium WebDriver and C# programming language
- Hands-on practice for introduction to ui automation testing
- Validate results and handle common failures
- Capture reusable patterns for the framework

02 Setting up the testing environment

- Installing and configuring Selenium WebDriver, Setting up the C# development environment, Creating a basic test project
- Hands-on practice for setting up the testing environment
- Validate results and handle common failures
- Capture reusable patterns for the framework

03 Locating and interacting with web elements

- Identifying web elements using various selectors, Performing actions on web elements (clicking, typing, etc.), Navigating between pages
- Hands-on practice for locating and interacting with web elements
- Validate results and handle common failures
- Capture reusable patterns for the framework

04 Handling different types of web elements

- Input fields, Checkboxes and radio buttons, Dropdown menus, Pop-ups and alerts
- Hands-on practice for handling different types of web elements
- Validate results and handle common failures
- Capture reusable patterns for the framework

05 Creating robust test cases

- Best practices for writing test cases, Using assertions to verify expected results, Implementing error handling and reporting
- Hands-on practice for creating robust test cases
- Validate results and handle common failures
- Capture reusable patterns for the framework

06 Working with dynamic web elements

- Identifying and interacting with elements that change dynamically, Waiting for elements to become available, Handling AJAX calls
- Hands-on practice for working with dynamic web elements
- Validate results and handle common failures
- Capture reusable patterns for the framework

07 Testing for responsiveness and accessibility

- Strategies for testing responsive web design, Tools and techniques for testing accessibility
- Hands-on practice for testing for responsiveness and accessibility
- Validate results and handle common failures
- Capture reusable patterns for the framework

08 Integrating UI automation testing with CI/CD

- Strategies for automating test execution, Best practices for integrating with CI/CD pipelines, Reporting test results
- Hands-on practice for integrating ui automation testing with ci/cd
- Validate results and handle common failures
- Capture reusable patterns for the framework

09 Advanced topics in UI automation testing

- Handling iframes and frames, Testing web applications with multiple windows, Testing for security vulnerabilities, Implementing data-driven testing
- Hands-on practice for advanced topics in ui automation testing
- Validate results and handle common failures
- Capture reusable patterns for the framework

10 Tips and tricks for successful UI automation testing

- Best practices for maintaining test suites, Debugging common issues in UI automation testing, Optimizing test execution speed, Strategies for testing complex scenarios
- Hands-on practice for tips and tricks for successful ui automation testing
- Validate results and handle common failures
- Capture reusable patterns for the framework

11 Real-world applications of UI automation testing with Selenium (C#)

- Case studies of successful UI automation testing implementation, Best practices for implementing UI automation testing in a corporate setting, Common pitfalls to avoid in UI automation testing
- Hands-on practice for real-world applications of ui automation testing with selenium (c#)
- Validate results and handle common failures
- Capture reusable patterns for the framework