

QA

ADVANCED

4 DAYS

Selenium with C#

Build a strong foundation in test automation using Selenium with C# by mastering WebDriver fundamentals and tooling. Learn how to set up the environment, write cross browser automated tests, and build robust, maintainable test frameworks for scalable quality assurance.

Why Selenium with C#?

Cross-platform support

Selenium with C# supports multiple platforms making it easier for businesses to create and run automated tests on different operating systems.

Integration with Visual Studio

C# integrates seamlessly with Visual Studio, allowing businesses to streamline their testing processes and easily debug test scripts.

Object-oriented programming

C# allows businesses to create reusable code modules and libraries that can be easily integrated with Selenium for efficient testing.

What you'll be able to do

- ✓ Gain a solid understanding of the basics of Selenium and C#
- ✓ Learn how to set up the development environment for Selenium with C#
- ✓ Learn how to write Selenium tests using C# programming language and execute them in different browsers
- ✓ Become proficient in working with Selenium WebDriver API
- ✓ Learn how to create robust and maintainable test scripts
- ✓ Learn how to use testing frameworks and tools

Who this is for

- Software testers
- Automation Engineers
- Developers
- QA Engineers

Curriculum

01 Introduction to Selenium and C#

- Overview of Selenium, Introduction to C#
- Hands-on practice for introduction to selenium and c#
- Validate results and handle common failures
- Capture reusable patterns for the framework

02 Selenium WebDriver API

- Locating web elements, Interacting with web elements, Navigation and browser manipulation, Wait strategies.
- Hands-on practice for selenium webdriver api
- Validate results and handle common failures
- Capture reusable patterns for the framework

03 Creating Test Automation Frameworks

- Page Object Model (POM), Design Patterns, Code organization and reusability.
- Hands-on practice for creating test automation frameworks
- Validate results and handle common failures
- Capture reusable patterns for the framework

04 Advanced Selenium Concepts

- Handling pop-ups and alerts, Working with iframes and nested frames, Handling multiple windows and tabs, and Working with dynamic web elements.
- Hands-on practice for advanced selenium concepts
- Validate results and handle common failures
- Capture reusable patterns for the framework

05 Test Data Management and Test Reporting

- Test Data Management strategies, Test Data Generation tools, Generating Test Reports using Extent Reports.
- Hands-on practice for test data management and test reporting
- Validate results and handle common failures
- Capture reusable patterns for the framework

06 Continuous Integration (CI) and Continuous Deployment (CD)

- Introduction to CI and CD, Integrating Selenium tests with CI/CD pipelines, Automating the build and deployment process.
- Hands-on practice for continuous integration (ci) and continuous deployment (cd)
- Validate results and handle common failures
- Capture reusable patterns for the framework

07 Debugging and Troubleshooting

- Debugging Selenium tests, Troubleshooting common errors and issues.
- Hands-on practice for debugging and troubleshooting
- Validate results and handle common failures
- Capture reusable patterns for the framework

08 Best Practices and Code Optimization

- Best practices for writing efficient and maintainable code, Code optimization techniques, Debugging tips and tricks.
- Hands-on practice for best practices and code optimization
- Validate results and handle common failures
- Capture reusable patterns for the framework

09 Case Studies and Practical Assignments

- Real-world case studies, Practical assignments and exercises, Hands-on experience with Selenium and C.
- Hands-on practice for case studies and practical assignments
- Validate results and handle common failures
- Capture reusable patterns for the framework