

# Selenium WebDriver C#



## 2 Day course

This introductory course covers all the essential principles of using the Selenium WebDriver automation framework in Microsoft Visual Studio.

Designed for beginners as well as testers with previous automation experience, it takes the new-comer to Selenium through all the basic techniques of writing effective automated web tests.

Throughout the course practical examples are demonstrated, and the delegates get to practice what they have learned in each chapter against a Web training application.

### Course Objectives

- understand the key principles of test automation using Selenium WebDriver
- understand how to structure your automated testing including the Page Object Model
- gain a full understanding of how Selenium integrates with the Application Under Test
- Understand how to manage Object Recognition, using techniques such as Xpath and CSS
- By the end of the course you should have a thorough understanding of how to develop reliable, robust Selenium Web Tests using Selenium WebDriver and other tools

### Key Technologies used

- Microsoft Visual Studio 2015, NUnit 3, WebDriver 3

### Course Pre-requisites

- A basic understanding of HTML and how Web Pages are developed
- Some programming experience would be advantageous - The course is based on WebDriver C# .NET, but does not teach you C# as you can use a variety of programming languages with WebDriver.

### Key Points

#### Introduction to WebDriver

An overview of the Selenium tools, Unit testing Frameworks, and Supported Browsers.

#### Installation & Setup

Libraries & Extensions in VS2015, using NuGet to install the required libraries. How to organise your file structure.

#### First Test Case

Creating our initial NUnit Test, the import statements, invoking a browser, writing to the console, writing the code to login to the Web Site

#### Object Identification

Element locator strategies, Chrome Developer Tools and other extensions, Regular Expressions, Index, Xpath functions

#### Synchronisation

What is Synchronisation, Adding Delay, Implicit versus Explicit Waits, common examples

#### Capturing Values and Validation

How to capture values from the Web Site, Using Asserts, Execution Flow, Debugging Tools

#### Testing Structure

How to build more than one test, in a single Class, NUnit Fixtures, Execution Order, NUnit Traits/Categories, Playlists

#### Helper Libraries

Reusable code, Common examples such as Handling Alerts & Pop-ups

#### Introducing Page Objects (POM)

Introduction to why we do it and how it reduces maintenance. Refactoring our tests to use a page object model. Developing a library of pages (POMs)

#### Data-Driven Testing

Data driving your Tests using In-Line Test Data, using external sources such as CSV files

#### Integration

Command-line execution with the NUnit Console Runner, Command-Line Switches, Using Parameters

2  
Days

The introductory course that takes you from beginner through to writing effective automated tests in Selenium WebDriver .NET

Recommended for anyone new to Selenium