



Using Selenium in CSharp with Workshop

Duration: 3 days

Course Overview

The first two days of this course are instructor led and the third day is a hands-on workshop. Selenium allows both developers and test analysts to automate tests and execute them with multiple browsers. This course aims to provide a solid foundation to the attendee to understand automated testing using Selenium. A key focus is to teach what the tool is capable of and the practical steps required to make automation work.

Who should attend?

- Agile testers
- Test automation specialists looking to learn Selenium
- Testers wishing to become test automation specialists.

Prerequisites & pre-reading guidelines

Although it is beneficial that attendees have a coding background (ideally in CSharp), this is not essential. The code examples used during the course are available in the training environment for attendees less experienced in CSharp to access.

How certification is earned

Upon completion of the course the delegate will receive an Expleo certificate and the knowledge of how to create a working CSharp environment in VSCode to run Selenium WebDriver automated tests.

Course Objectives

On completion of the course, attendees will understand how to configure Selenium and how to automate tests using the tool

Context

This course is ideal for anyone who wishes to start learning all about Selenium from the initial IDE browser add-on all the way to creating your own CSharp project of automated tests using Selenium WebDriver in Visual Studio Code.

Related courses

- Using Selenium With Workshop
- Using Cucumber With Selenium
- Test Automation Fundamentals
- ISTQB® Certified Tester - Advanced Level: Test Manager

Course Outline

Introduction

- Automation Overview
- Core skills taught on the course

Selenium IDE

- Overview of Selenium IDE and available add-ins
- Recording and replay of a Selenium IDE Test
- Object recognition tools ChroPath.
- Assertions and Verifications
- Exporting a Selenium IDE Test as CSharp

Creating Selenium Scripts in VSCode

- Configuring a new C# project in VSCode
- Creating a basic automated test and a test suite
- Executing a test and test suite through VSCode
- Importing a test from Selenium IDE

Selenium WebDriver

- Components of Selenium WebDriver in NUnit
- Annotations in WebDriver
- Interacting with the AUT: Object locators
- Actions on WebElements

Data Driving Selenium Tests

- Use of data sources (e.g. Excel spreadsheets, CSV files, databases) to provide increased maintainability flexibility.

Debugging and coding

Debugging skills are a critical and often overlooked part of learning how to automate tests.

This section teaches basic debugging within VSCode, including:

- Setting breakpoints
- Retrieving values on-the-fly
- Stepping through code
- Observing the Application under Test
- Making deductions
- Building and testing a hypothesis

Page Object Model

The Page Object Model enables reusable code to provide a maintainable automation framework.

Areas covered include:

- Introducing the Page Object Model
- Accessing the page objects in a test script

Object Recognition

Object recognition is one of the commonest issues automation testers have to face. A number of techniques and approaches can be used, including:

- Why it is difficult to identify an object.
- Choice of element locator
- Use of multiple locator properties
- Use of XPath or CSS syntax and patterns
- Use of ordinal identifiers
- Using ChroPath to write more stable locators
- Descriptive programming for dynamic objects
- How to navigate web iframes

Selenium Workshop

A series of hands-on learning exercises including:

- Selenium IDE: Creating a new test
- VSCode: Importing the new Selenium test into a newly created C# project
- Page Objects: Converting the script to use them
- Asserts: For both positive and negative test
- Data driving: simple and complex.

Contact

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