Selenium WebDriver C#

edgewords

5 Sessions Online

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

The course is delivered online and is instructor-led, live training. Each delegate receives a comprehensive e-workbook

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 integrate with other tools such as Git & Azure DevOps

Course Pre-requisites

- A basic understanding of HTML and how Web Pages are developed
- Some programming experience would be advantageous but not essential

Key Points

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

Installation & Setup
Libraries & Extensions in VS, 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 a simple script against the Web Site

Recording Tools
Recording & Exporting Scripts with Selenium IDE

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

Base Classes
Creating a Test Base Class to use through Inheritance for SetUp & TearDown

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

Reporting
Console reporting, Taking Screenshots, Creating Dynamic HTML Results with Extent Reports

Cross-Browser Testing
Handling differences between Browsers, Tips for Edge & IE Browsers

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

Introducing Page Objects (POM)
Refactoring our tests to use a page object model. Developing a library of pages (POMs). Fluent Coding.

Global Parameters
Using Application config files to store global values

Command Line Execution
Command-line execution with the NUnit Console Runner

Source Control
Integrating with Git & GitHub

Continuous Integration
Integrating with Jenkins or Azure DevOps for C.I.

Parallel Execution
Parallel Test Execution using NUint or Azure DevOps

5
Days

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

Recommended for anyone new to Selenium