

Selenium Course with C#

Overview:

Selenium with C# is a free automation testing tool for web applications. It is able to work with different browsers like Chrome, Firefox, IE, Opera and simulate human like behavior. Selenium is able to interact with all the different elements in a webpage. It can click on them, input text, extract text and much more. By covering all the different functionalities on your website with Selenium tests, you will be able to quickly catch new and reappearing old bugs. This will save your time and money.

Course Objectives:

- ❖ Understand Selenium IDE
- ❖ Understand web elements
- ❖ Understand NUnit framework
- ❖ Taking screen shots using selenium
- ❖ Understand Extent Reports
- ❖ Handling multiple windows, pop-ups, alerts
- ❖ Develop page object model frame work
- ❖ Freelancers that want to make bug free websites.

Pre-requisite / Target Audience:

- ❖ Manual Testers who want to learn how to work with Selenium WebDriver
- ❖ QA Interns
- ❖ QA Professionals with no Selenium experience
- ❖ Freelancers that want to make bugfree websites

Module 1: Introduction to Automation Testing

In this module, we can learn about automation testing and when to automate the application. We can also look into different automation tools in the market, and we will discuss about advantages and disadvantages of automation tool.

- ❖ what is Automation testing
- ❖ Advantages of Automation testing
- ❖ Disadvantages of Automation testing

Module 2: History of Selenium

In this module, we will discuss briefly about selenium tool and history of it. We will compare selenium with other tool like QTP and we can look into major components in selenium like Selenium IDE, Selenium RC, Selenium WebDriver and Selenium Grid.

Module 3: Why Selenium tool

In this module you will learn selenium is a portable software-testing framework for web applications. Selenium provides a record/playback tool for authoring tests without the need to learn a test scripting language (Selenium IDE). ... The tests can then run against most modern web browsers.

Module 4: Differences between Selenium and other Tools

In this module you will learn difference between selenium and others tools advantages of selenium why most people are using selenium.

Module 5: Different components in Selenium

In this module you will learn components in selenium, Selenium IDE, Selenium RC, Selenium Web Driver, Selenium GRID what is the importance of each component.

Module 6: C# topics for Selenium

In this module you will learn basics of knowledge of C# OOPS concepts and Collections which will be integrated with selenium

- ❖ Introduction to C#
- ❖ Data types
- ❖ Control Statements
- ❖ Strings
- ❖ Arrays
- ❖ OOPS Concept
 - Class
 - Object
 - Constructor
 - Encapsulation
 - Inheritance
 - Polymorphism
 - Abstraction
 - Interface
- ❖ Exception Handling

- ❖ Collections
- ❖ File Handling

Module 7: Selenium IDE

In this module you will learn Selenium IDE is an integrated development environment for Selenium tests. It is implemented as a Firefox extension, and allows you to record, edit, and debug tests.

- ❖ Installation and Introduction to IDE
- ❖ Creating first script using record and playback
- ❖ Installation of Inspector Tools and its Uses.
- ❖ Generating Scripts using different WebElement
- ❖ Handling Wait Commands
- ❖ Handling Validations Commands
- ❖ Handling Store Commands
- ❖ Limitations of IDE

Module 8: Set Up Selenium with Visual Studio

In this module you will learn Installation of Visual Studio and how to configure Selenium with Visual Studio

- ❖ Download and Install Visual Studio
- ❖ Set Up Selenium with Visual Studio in C#
- ❖ How to write Selenium Test using NUnit Framework
- ❖ Running Test in Chrome browser
- ❖ Running Test in IE Explorer
- ❖ Internet Explorer Driver Server
- ❖ Challenges with IE browser in Selenium WebDriver

Module9: Locators & XPath

In this module you will learn how to identify the Web Elements, Xpath how to inspect Xpath, creating xpath

- ❖ Use Of Browser Inspector
- ❖ Firebug & Fire Path
- ❖ HTML Locators
- ❖ Element Locator for WebDriver
- ❖ XPath Helper Plug-in for Chrome
- ❖ Fire-IE-Selenium
- ❖ Effective XPath

Module 10: Selenium WebDriver

In this module you will learn how to handle basic functionalities, How to write Selenium script and Debugging Script.

- ❖ First Program on selenium
- ❖ Verify Page title in Selenium Webdriver
- ❖ Navigation in selenium
- ❖ Radio button and Checkbox in Selenium Webdriver
- ❖ Handling DropDownList
- ❖ Handling File upload using Sikuli/Auto IT
- ❖ Handling Drag and Drop in Selenium
- ❖ Handling Mouse Hover
- ❖ Synchronization using webdriver
- ❖ How to take screenshot using selenium
- ❖ How to capture Error message using webdriver
- ❖ Handling Multiple windows
- ❖ Handling Alert Messages.
- ❖ Handling Frames.
- ❖ Cross Browsing using selenium
- ❖ Complete details of Dynamic XPath in Selenium
- ❖ Program on CSS in selenium
- ❖ How to download files in Selenium Webdriver.
- ❖ Handling WebTable
- ❖ How to use Logs File in selenium
- ❖ How to use Properties File in selenium

Module 11: Switches Alerts & Windows

In this module you will learn handling multiple windows, popups, Alerts IFrams , different types of waits.

- ❖ Implicit Wait Commands in Selenium
- ❖ Explicit/Smart Wait Commands in Selenium
- ❖ Switch Commands in Selenium
- ❖ Different types of Alerts
- ❖ Handling Multiple Windows
- ❖ Handle Unexpected Alert
- ❖ Expected Condition Wait
- ❖ Handling IFrames using WebDriver

- ❖ Interacting with elements inside IFrame

Module 12: Frameworks:

In this module you will learn the organization's way of doing things – a 'Single Standard'. This standard would result in the project team achieving Script-less representation of automated tests, Data Driven, Reports.

- ❖ What is Framework
- ❖ Types of Framework
- ❖ Use of Framework

Module 13: Page Object Model Framework:

In this module you will learn how to create POM frame work using Nunit Frame work

Page Object model using Nunit frame work

Real-time Project involving most of the above concepts with following will be provided

- Product Abstract Document
- Requirement Specification Document
- **Step-by-Step procedure for building the Frame work from ground up**
- Complete Source Code

At the end of the course participants will be able to

1. Work with Input boxes, Check boxes, Radio buttons, Alert boxes and more
2. Work with Page Object Model and implement it correctly
3. Create a Healthy Selenium Automation Framework
4. Parallel Testing with Selenium and NUnit3
5. Using Different Browsers - Chrome, Opera, Internet Explorer, Firefox
6. Taking Screenshots with Selenium
7. Working with Browser Properties (Size, Location, New Tabs/Windows, Tabs/Windows Handles)
8. Generating beautiful HTML Reports for our Test Results with Selenium and NUnit3
9. Work with ID, Name, CSSPath and XPath Selectors and know when to use each one of them in Selenium