

Selenium Fundamentals

Duration: 3 Days Course Code: LO035431

Overview:

Automated testing is the way forward. It is faster than manual testing, and you can easily rerun your tests at no extra cost. With this course, you'll learn how to use Selenium to efficiently test your own applications.

There are several challenges when writing automated tests for web applications: selecting an adequate test framework, using appropriate selectors to avoid flaky tests, and building a good testing framework. This course walks you through these challenges and provides you with the knowledge to overcome hurdles in testing by developing stable and effective testing solutions. You will learn the complete process of automated testing, such as configuring your environment, creating and running automated tests, analyzing reports, and troubleshooting errors by using a Selenium Grid.

Target Audience:

This course is designed for software quality assurance and development personnel who want to learn how to automate browser activity and web-based user interface tests with Selenium.

Objectives:

- This course starts with the fundamentals and in an incremental fashion provides you with the skills you need to run automated tests on your own web application.
 - We'll begin this course by understanding the importance of automating tests. Then, we will learn how to choose good selectors for navigating through your web application while highlighting best practices and techniques.
 - After writing your first tests, you will go through the object model to help create your own advanced test cases. You will learn how to analyze a test report, track timing errors, and separate real issues from "flaky" tests. You will also learn how to configure and connect to a local grid, a network grid, and a third-party service. By the end of the course, you will have the skills you need to run automated tests on your own web application.
 - After completing this course, you will be able to:
 - Get an overview of Selenium
 - Identify what to automate in a project and configure the environment
 - Learn to control browser behaviour and manipulate web page elements
 - Understand the nuances of writing tests and creating test suites
 - Create UI tests with Selenium WebDriver and analyze test results
 - Troubleshoot errors in automation and build out meaningful reporting
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Content:

Lesson 1: Getting Started

- What is Automation?
- Selenium Overview
- Environment Configuration

Lesson 2: WebDriver Functionality

- Overview of Frequently Used Methods
- Instantiating WebDriver
- Controlling the Browser Window

Lesson 3: WebElement Functionality

- Using Browser Developer Tools
- Overview of WebElement Functionality
- Interacting with Elements on a Page
- Element Locator Types

Lesson 4: Advanced Element Location

- Going through the DOM
- Searching within Previously Found Elements
- Creating Complex Locators when an Element is Not Easily Reachable

Lesson 5: Waiting for Elements

- Implicit Waits
- Explicit waits
- Implicit Versus Explicit Waits
- Waiting for an Element with a Custom Written Condition

Lesson 6: Page Object Model

- Introduction to the Page Object Model
- Modeling a Web Application Using Page Objects
- Creating a Selenium Framework for a Web Application

Lesson 7: Writing Tests

- What is a Test Framework?
- Choosing a Test Framework
- Creating Test Scripts and Suites
- Validating and Viewing Results

Lesson 8: Analysis and Troubleshooting

- Analyzing the Test Report
- Tracking Down Timing Errors
- Separating Real Issues from "Flaky" Tests

Lesson 9: Using a Selenium Grid

- Configuring and Connecting to a Local Grid
- Configuring and Connecting to a Network Grid
- Connecting to a Third-Party Service

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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