

# A4Q Selenium 4 Tester Foundation Certification

Duration: 3 days

## Course Overview

This course provides a basic foundation to the issues around automation, how to access HTML and XML syntax, coding with Selenium WebDriver and Python or Java, and preparing maintainable test scripts.

This is the accredited Selenium Foundation course as provided by A4Q (Alliance for Qualification) but we also provide you with an online Amazon Web Service instance as your training environment during the course for the exercises.

## Who should attend?

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

## Prerequisites & pre-reading guidelines

Although it is beneficial that attendees have a coding background (ideally in Python or Java), this is not essential.

Code examples are provided during the course which are available in the training environment for attendees less experienced in Python or Java to access.

## How certification is earned

At the end of the course there is the chance to sit the accredited A4Q Selenium 4 Foundation exam.

To prepare attendees for the certification exam, a mock exam is provided.

The 1-hour exam is independently invigilated by the relevant exam board.

## Course Objectives

The business outcome from the course are:

- Have an understanding of Selenium automation tools
- Have an understanding of the different TAS that can be implemented using Selenium tools
- Have an understanding of the underlying web technologies and how they are used on Selenium
- Adopt the best practices when onboarding Selenium automation projects
- Understand how to maximize the return on investment for the automation projects

## Context

Selenium is one of the most popular software testing tools specifically designed to support the automation of browser-based web applications.

Python and Java are both popular coding languages.

By using Selenium in a coding IDE during an exercise at the end of the course not only are you learning using the most popular tools in your own environment but also gaining a basic understanding of the issues behind the automated tests.

## Related courses

- Using Selenium with Workshop
- ISAQB® Certified Professional for Software Architecture - Foundation Level (CPSA-F)
- ISTQB® Certified Tester: Advanced Level Test Analyst
- ISTQB® Certified Tester – Foundation Level
- Requirements Verification

## Course Outline

### 1 - Introduction to Test Automation

- 1.1 Test automation in a nutshell
- 1.2 Manual testing and test automation
- 1.3 Test Automation Solutions Design

### 2 - Automation Web Technologies

- 2.1 Webpage Architecture
- 2.2 Document Object Model
- 2.3 Automation locators
  - 2.3.1 Types of locators
- 2.4 XPath
- 2.5 CSS Selector

### 3 - Selenium Automation Tools

- 3.1 Overview of Selenium test automation
- 3.2 Flavors of the Selenium automation tool
- 3.3 Selenium WebDriver ecosystem
- 3.4 Selenium 4

### 4 - Using Selenium WebDriver

- 4.1 Managing Selenium libraries
- 4.2 Selenium WebDriver in action
- 4.3 Selenium GUI interface
- 4.4 Parallelism of tests
- 4.5 Machine learning and test automation
- 4.6 Best practices

### 5 - Implementation of Test Automation in an organization

- 5.1 Factors to consider
- 5.2 Evaluation of efficiency and effectiveness of test automation
- 5.3 Success Factors

### 6 - Adapting a Selenium TAS

- 6.1 Dynamic Variables
- 6.2 Custom Automation Actions
- 6.3 Extended verifications

## Contact

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