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# Selenium WebDriver training

3 days (21 hours)

## Presentation

Selenium Webdriver is the testing tool with the highest compatibility. Selenium supports all well-known programming languages, such as Python, Java, C#, PHP, etc.

It also adapts to most operating systems such as UNIX, Mac, Windows or Linux, and to most devices (Android, iPhone, Blackberry).

This software is easy to implement and customize, with the use of numerous plugins. The latest versions integrate Cross Browser Compatibility with the use of major browsers such as Safari, Chrome, Firefox etc...

What's more, Selenium is free, open-source and has a large community that is continually improving the quality of the program.

Our Selenium WebDriver training course will teach you how to use Selenium to automate your development tests.

As with all our training courses, we'll be teaching you the latest version of the tool, [Selenium 4.21](#).

## Objectives

- Getting to know Selenium and why use it
- Mastering automation techniques
- How to use synchronization
- Parallelizing tests with Selenium Grid

## Target audience

- Developers
- Technical architects
- Project managers
- Design engineer

## Prerequisites

- Basic knowledge of an automation tool is recommended
- Knowledge of a programming language

## Software requirements

- An IDE
- JDK installed

## Selenium training program

### Introduction

- What are Selenium and Selenium WebDriver?
- Why use Selenium?
- The different features
- The architecture
- The difference between RC, WebDriver and Grid

### Getting started with Selenium Webdriver

- Programming language installation with Selenium
- Full configuration
- Managing dependencies
- Component location
- Mastering the interface
- Logs and reporting
- Browsing different URLs
- Change window context
- Take screenshots
- Using the WebDriver command
- Run tests on different browsers
- Debugging

### Locator techniques

- Identify locators by ID, name or linktext
- Identifying locators with className
- Xpath vs CSS locators
- Identify Xpath and CSS locators

## Automation techniques

- Automation with the Webdriver API
- Managing checkboxes
- The importance of Assertions
- Manage and automate UI elements
- Automating AJAX calls
- Automating Windows childs
- Iframe automation
- Spell automation
- Pagination automation

## Synchronization

- Implicit Wait vs Explicit Wait vs Fluent Wait
- Implicit Wait
- Explicit Wait
- Fluent Wait

## Parallelizing tests with Selenium Grid

- What is Selenium Grid and when is it used?
- Selenium Grid architecture
- RemoteWebDriver and DesiredCapabilities
- Installation and configuration
- Parallel test execution
- Debugging

## Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

## Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as enrolment is finalized, the learner receives a self-assessment questionnaire enabling us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and objectives.

This questionnaire also enables us to anticipate any connection or internal security problems (intra-company or virtual classroom) that could be problematic for the follow-up and smooth running of the training session. This questionnaire also enables us to anticipate any connection or internal security difficulties within the company (intra-company or virtual classroom) that could be problematic for the follow-up and smooth running of the training session.

## Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

## Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

## Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

## Sanction

A certificate will be issued to each trainee who completes the course.