

QA

ADVANCED

4 DAYS

Selenium with JavaScript

Build a strong foundation in web application test automation using Selenium with JavaScript. Learn how to identify web elements, automate browser tests, work with APIs, and use testing frameworks to validate modern web applications effectively.

Why Selenium with JavaScript?

Cross-browser compatibility

With Selenium, you can test your web applications across different browsers and platforms, ensuring that they work well on all major browsers.

Scalability

Selenium with JavaScript is highly scalable and can handle complex web applications with ease. It can be used to automate tests on thousands of web pages simultaneously, saving time and effort for businesses.

Integrations

Selenium with JavaScript can be easily integrated with other testing tools, such as Jenkins and TestNG, allowing businesses to build robust and scalable testing frameworks.

What you'll be able to do

- ✓ Gain a basic understand the basics of web application testing
- ✓ Learn to automate tests using Selenium with JavaScript
- ✓ Learn how to identify web elements
- ✓ Learn how to use testing frameworks
- ✓ Learn how to work with APIs and use them to test web applications

Who this is for

- Software Developers
- QA Test Engineers
- Web Developers
- IT Professionals

Curriculum

01 Introduction to Selenium

- Overview of Selenium, its architecture, and its use cases.
- Hands-on practice for introduction to selenium
- Validate results and handle common failures
- Capture reusable patterns for the framework

02 Setting up the development environment

- Installing necessary software and tools such as Node.js, NPM, and Selenium WebDriver.
- Hands-on practice for setting up the development environment
- Validate results and handle common failures
- Capture reusable patterns for the framework

03 Understanding the WebDriver API

- Overview of the WebDriver API, its methods, and how it can be used to automate web browsers.
- Hands-on practice for understanding the webdriver api
- Validate results and handle common failures
- Capture reusable patterns for the framework

04 Locating elements on a web page

- Techniques for locating elements on a web page using CSS selectors, XPath, and other methods.
- Hands-on practice for locating elements on a web page
- Validate results and handle common failures
- Capture reusable patterns for the framework

05 Performing actions on a web page

- Techniques for performing actions such as clicking buttons, filling out forms, and submitting data.
- Hands-on practice for performing actions on a web page
- Validate results and handle common failures
- Capture reusable patterns for the framework

06 Verifying content on a web page

- Techniques for verifying content on a web page using assertions, including verifying text, images, and links.
- Hands-on practice for verifying content on a web page
- Validate results and handle common failures
- Capture reusable patterns for the framework

07 Debugging and troubleshooting

- Strategies for debugging and troubleshooting Selenium scripts, including using the browser dev tools and debugging logs.
- Hands-on practice for debugging and troubleshooting
- Validate results and handle common failures
- Capture reusable patterns for the framework

08 Script organization and best practices

- Techniques for organizing Selenium scripts for maintainability and efficiency, including code reusability and error handling.
- Hands-on practice for script organization and best practices
- Validate results and handle common failures
- Capture reusable patterns for the framework

09 Parallel testing with Selenium

- Overview of parallel testing with Selenium and how to run multiple test cases simultaneously to reduce testing time.
- Hands-on practice for parallel testing with selenium
- Validate results and handle common failures
- Capture reusable patterns for the framework

10 Advanced topics

- Advanced topics in Selenium with JavaScript, including working with dynamic web pages, performing actions on pop-ups and dialog boxes, and using advanced selectors.
- Hands-on practice for advanced topics
- Validate results and handle common failures
- Capture reusable patterns for the framework

11 Integrating with test frameworks

- Integrating Selenium with test frameworks such as Mocha, Jest, and Chai to create comprehensive test suites.
- Hands-on practice for integrating with test frameworks
- Validate results and handle common failures
- Capture reusable patterns for the framework

12 Real-world examples and case studies

- Hands-on examples and case studies to demonstrate the practical application of Selenium with JavaScript in real-world scenarios.
- Hands-on practice for real-world examples and case studies
- Validate results and handle common failures
- Capture reusable patterns for the framework