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Register

Advanced Microsoft Playwright Training

3 days (21 hours)

Overview

Playwright is a modern end-to-end testing framework designed to automate web interfaces with excellent reliability. With its native multi-browser support, intelligent synchronization, and advanced tools, it has become the gold standard for industrializing software quality.

Our Advanced Playwright training will take you beyond the basics: designing robust test suites, optimizing performance, parallelization, CI/CD integration, and leveraging debugging tools (traces, videos, diagnostics) to make pipelines more reliable.

You will learn how to structure large-scale Playwright projects, enhance test stability (anti-flakiness), combine UI and API tests, and produce actionable reports to drive quality.

By the end of the training, you will be able to industrialize your end-to-end tests, drastically reduce intermittent failures, accelerate execution through parallelization, and integrate Playwright into demanding CI/CD chains, while implementing a quality approach similar to SDET practices.

Like all our training courses, this one will introduce you to **the latest stable version** of the technology and its new features.

Objectives

- Deepen your advanced mastery of Playwright.
- Design robust, maintainable, and anti-flakiness tests.
- Industrialize execution and integration in CI/CD.
- Optimize performance through parallelization and isolation.
- Use traces, logs, videos, and diagnostics for debugging.

- Implement actionable reporting to drive quality.

Target audience

- Experienced developers
- QA Automation Engineers
- SDET
- Experienced test engineers

Prerequisites

- Good knowledge of JavaScript or TypeScript
- Experience with automated testing

Advanced Playwright training

[Day 1 - Morning]

Internal architecture and Playwright engine

- Understanding Playwright architecture and its execution engine
- Key differences with Cypress and Selenium
- Native multi-browser management (Chromium, Firefox, WebKit)
- How intelligent auto-waiting works
- Lifecycle of pages, contexts, and browsers
- Hands-on workshop: Analyzing an unstable test and understanding the Playwright engine.

[Day 1 - Afternoon]

Advanced selectors and robust strategies

- Text, ARIA, CSS, and XPath selectors
- Advanced use of locators
- Anti-flakiness strategies
- Dynamic selectors and complex components
- IFrame and shadow DOM management
- Hands-on workshop: Refactoring fragile selectors.

Synchronization, timing, and stability

- Advanced timeout management
- Auto-wait vs. manual waits

- Network state detection
- Management of animations and asynchronous loading
- Best practices for stability in UI testing
- Hands-on workshop: Stabilizing an unstable test suite.

[Day 2 - Morning]

Project architecture and best practices

- Advanced structuring of a Playwright project
- Separating tests/pages/helpers
- Advanced Page Object Model design pattern
- Sharing and reusability
- Test debt management
- Hands-on workshop: Redesigning an existing test architecture.

[Day 2 - Afternoon]

Advanced testing: APIs, mocks, and networks

- API testing with Playwright
- Network mocking and advanced interception
- Error scenario management
- End-to-end testing vs. contractual testing
- UI + API coupling
- Hands-on workshop: Hybrid UI + API testing.

Parallelization and performance

- Parallel test execution
- Context isolation
- Concurrent data management
- Execution time optimization
- Test performance analysis
- Hands-on workshop: Optimizing a slow test pipeline.

[Day 3 - Morning]

Playwright in CI/CD

- Running Playwright in CI
- Integration with GitHub Actions, GitLab CI, or Jenkins
- Headless browser management
- Smart retry strategies
- DevOps best practices

- Hands-on workshop: Complete Playwright CI pipeline.

[Day 3 - Afternoon]

Debugging, tracing, and observability

- Advanced use of Playwright traces
- Visual debugging and headful mode
- Screenshots, videos, and logs
- Post-mortem analysis of failures
- Implementing a diagnostic strategy
- Hands-on workshop: Analyzing complex failures using traces.

Reporting, quality, and maturity

- Advanced Playwright reporting
- Integration with reporting tools
- Test quality indicators
- Functional coverage strategies
- Transition to an SDET approach
- Hands-on workshop: Implementing actionable reporting.

Target companies

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

Positioning at the start of training

The placement test at the start of the training course complies with Qualiopi quality criteria. Once they have finalized their registration, learners receive a self-assessment questionnaire that allows us to gauge their estimated level of proficiency in different types of technologies, as well as their expectations and personal goals for the upcoming training course, within the limits imposed by the selected format. This questionnaire also allows us to anticipate certain connection or internal security issues within the company (intra-company or virtual classroom) that could be problematic for the monitoring and smooth running of the training session.

Teaching methods

Practical training: 60% practical, 40% theory. Training materials distributed in digital format to all participants.

Organization

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

Assessment

At the end of the session, a multiple-choice questionnaire is used to verify that the skills have been correctly acquired.

Certification

A certificate will be issued to each trainee who has completed the entire training course.