



Information Technology

**Automation testing using playwright with  
AI product.**

## Course Introduction

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In the world of modern web application development, ensuring the quality and reliability of products is essential. Automation testing has become a critical component of this process. Playwright, a powerful framework for web automation, offers a unique set of tools that facilitate testing across multiple browsers and devices. When integrated with Artificial Intelligence (AI) tools, this approach can provide enhanced capabilities for testing AI-powered web applications, optimizing test execution, and improving overall efficiency.

This course will introduce participants to Playwright, its features, and how it can be effectively used for automating tests of AI-driven products.

## Target Audience

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Web Developers:

QA Engineers and Test Automation Specialists

# Learning Objectives

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- Understand the fundamentals of automation testing and its importance in software development.
- Gain hands-on experience with the Playwright testing framework and its capabilities.
- Learn how to integrate Playwright with AI-based products for more efficient and intelligent testing.
- Explore techniques to automate testing for AI-driven web applications, including visual validation and data-driven testing.
- Learn best practices for scaling automation tests and handling complex AI features.
- Understand how to debug and maintain automated tests in a continuous integration pipeline.

# Course Outline

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## • DAY 01

### **Module 1: Introduction to Automation Testing**

- What is Automation Testing?
- Benefits and Challenges of Automation Testing
- Overview of Automation Tools and Frameworks
- Introduction to Playwright
- Importance of Automation Testing in AI Products

### **Module 2: Getting Started with Playwright**

- Installing Playwright and Setting Up the Environment
- Overview of Playwright Architecture
- Basic Concepts: BrowserContext, Page, ElementHandle

- Playwright Features: Cross-browser Testing, Headless Testing, Device Emulation
- Writing and Running Simple Tests with Playwright

## • Day 02

### **Module 3: Advanced Playwright Techniques**

- Handling Different Types of Elements: Buttons, Inputs, Dropdowns
- Advanced Selectors and XPath in Playwright
- Working with Multiple Pages and Frames
- Network Interception and Mocking APIs
- Screenshot and Video Recording for Test Validation
- Debugging Playwright Tests with Playwright Inspector

### **Module 4: Introduction to AI Products in Testing**

- Overview of AI-Powered Web Applications
- Testing Challenges for AI-based Systems
- Common AI Features in Web Products (e.g., recommendation engines, natural language processing, computer vision)
- Types of AI Tests: Functionality, Usability, Performance

## • Day 03

### **Module 5: Integrating Playwright with AI Products**

- Techniques for Testing AI Algorithms and Models
- Automating Visual Testing in AI Products using Playwright
- Validating AI-driven Outputs through Automated Tests
- Data-Driven Testing for AI Features
- Playwright's Role in End-to-End Testing of AI Applications

### **Module 6: Best Practices in Automation Testing for AI Products**

- Writing Maintainable and Scalable Tests
- Handling Dynamic Content and AI-driven Changes
- Managing AI-specific Test Cases (e.g., performance, data accuracy, model validation)
- Best Practices for Debugging AI Automation Tests
- Continuous Integration and Test Automation Pipelines with Playwright and AI

## • Day 04

**Module 7: Case Study and Hands-on Project**

- Real-World Application of Playwright with an AI Product
- Setting Up Test Scenarios for AI Features
- Group Work: Creating and Running Automation Tests for AI Features
- Reporting and Analyzing Test Results

**Module 8: Conclusion and Q&A**

- Summary of Key Takeaways
- Future Trends in Automation Testing for AI Products
- Open Q&A Session
- Final Thoughts and Course Wrap-up

**Confirmed Sessions**

FROM	TO	DURATION	FEES	LOCATION
June 16, 2025	June 19, 2025	4 days	4950.00 \$	Italy - Rome
Aug. 11, 2025	Aug. 14, 2025	4 days	4250.00 \$	UAE - Abu Dhabi
Oct. 20, 2025	Oct. 23, 2025	4 days	4250.00 \$	UAE - Dubai