## **Microsoft Playwright**





# e-Learning Course

Automate browser testing with ease.

Master Microsoft Playwright and boost your testing efficiency

### COURSE MODULES

#### Module 1: Introduction to Playwright

- · What is Playwright?
- · Playwright vs. Selenium vs. Cypress
- Supported Browsers and Platforms
- Installing Playwright
- Setting Up Your First Playwright Project



#### **Module 2: Playwright Fundamentals**

- Understanding Playwright Architecture
- Writing Your First Test Script
- Running Tests in Different Browsers (Chromium, Firefox, WebKit)
- Headless vs. Headed Mode
- Debugging Playwright Tests

#### **Module 3: Locating Elements**

- Understanding Selectors in Playwright
- Using CSS, XPath, and Text Selectors
- Best Practices for Locating Elements
- Handling Dynamic Elements

#### **Module 4: Interacting with Web Elements**

- Clicking and Typing
- Filling Forms and Handling Input Fields
- Working with Dropdowns, Checkboxes, and Radio Buttons
- Handling Mouse and Keyboard Events

#### **Module 5: Advanced Interactions**

- Handling Pop-ups and Alerts
- · Working with Frames and iFrames
- Dealing with Multiple Browser Tabs and Windows
- Handling File Uploads and Downloads

#### **Module 6: Assertions and Test Frameworks**

- Using Playwright's Built-in Assertions
- Integrating Playwright with Jest, Mocha, and NUnit
- Writing Custom Assertions
- Parallel and Sequential Test Execution

#### **Module 7: Handling APIs and Network Requests**

- Intercepting and Mocking API Requests
- Modifying Request and Response Data
- Capturing and Analyzing Network Traffic

#### Module 8: Visual and Accessibility Testing

- Screenshot and Video Capture
- Visual Regression Testing with Playwright
- Accessibility Testing Best Practices

#### Module 9: Playwright Test Runner and Reporting

- Introduction to Playwright Test Runner
- · Configuring Playwright.config.ts
- Generating and Customizing Test Reports
- Running Tests in CI/CD Pipelines (GitHub Actions, Jenkins)

#### Module 10: Performance Testing with Playwright

- Measuring Page Load Time
- Analyzing Performance Metrics
- Automating Lighthouse Reports

#### Module 11: Debugging and Troubleshooting

- Debugging with Playwright Inspector
- Using Trace Viewer for Debugging
- Common Playwright Issues and Fixes

#### **Module 12: Best Practices and Optimization**

- Organizing Test Suites Efficiently
- Reducing Flakiness in Tests
- Playwright Best Practices

