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Where trainees meet real Support

Automation Testing (Playwright)

Master Modern Web & API Test Automation with Playwright & TypeScript

4 Weeks Duration • 20 Total Lectures (5 Lectures/Week) • Beginner to Advanced

About the Course

- **Structured Learning Journey:** From TypeScript fundamentals to enterprise-grade Playwright E2E & API automation
- **Career-Oriented:** Designed specifically for manual testers, QA engineers, and developers transitioning to SDET roles
- **Comprehensive Scope:** Covers cross-browser automation, Page Object Model (POM), API mocking, and CI/CD pipelines
- **Hands-On Methodology:** Master modern test frameworks through guided coding sessions and real-world test suites
- **Portfolio Capstone:** Architect an end-to-end enterprise test automation framework ready for production environments

Who Can Attend?

- QA Engineers & Manual Testers transitioning to modern Automation Testing
- Test Automation Engineers looking to transition from Selenium/Cypress to Microsoft Playwright
- Frontend, Backend & Full-Stack Developers seeking reliable end-to-end (E2E) testing skills
- Software Engineers in Test (SDETs) preparing for enterprise automation roles and technical interviews

**No previous Playwright experience required. Starting points are tailored to learner background.*

Course Outline (Part 1: Foundations & UI Automation)

Week 1: TypeScript Foundations & Playwright Basics (Lectures 1 – 5)

- **Lecture 1:** Introduction to Modern QA Automation: Why Playwright outperforms legacy Selenium & Cypress
- **Lecture 2:** TypeScript for QA: Variables, strong typing, type inference, interfaces, and class structures
- **Lecture 3:** Asynchronous JavaScript & TypeScript: Promises, async/await patterns, and event-driven testing
- **Lecture 4:** Playwright Environment Setup: Node.js, VS Code extension, project structure & configuration
- **Lecture 5:** First Automated Test: Navigation, locator strategies, built-in runners, and running headed/headless

Week 2: Advanced Locators, UI Interactions & Synchronization (Lectures 6 – 10)

- **Lecture 6:** Modern Playwright Locators: getByRole, getByText, getByLabel, getByTestId, and chaining locators
- **Lecture 7:** User Interactions: Typing, clicks, dropdowns, radio buttons, checkboxes & keyboard shortcuts
- **Lecture 8:** Complex UI Workflows: Handling JavaScript alerts, browser dialogs, modal popups & iframes
- **Lecture 9:** Advanced Browser Features: Multi-tab/multi-window handling, file upload/download, and drag & drop
- **Lecture 10:** Flakiness Elimination: Auto-waiting mechanisms, web-first assertions & debugging with Trace Viewer

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Course Outline (Part 2: API Testing, POM Architecture & CI/CD)

Week 3: API Testing, Mocking & Page Object Model Architecture (Lectures 11 – 15)

- **Lecture 11:** REST API Testing with Playwright: APIRequestContext, HTTP methods (GET, POST, PUT, DELETE) & status codes
- **Lecture 12:** Request Payloads & Auth: Headers, JWT authentication tokens, JSON schema validation, and assertions
- **Lecture 13:** Network Interception & Mocking: Route handling, mock API responses, and simulating backend failure states
- **Lecture 14:** Page Object Model (POM): Architecting maintainable page classes, base components & separation of concerns
- **Lecture 15:** Data-Driven Testing: Externalizing test datasets (JSON, CSV, ENV) and creating custom Playwright fixtures

Week 4: CI/CD Pipelines, Cross-Browser Testing & Capstone Project (Lectures 16 – 20)

- **Lecture 16:** Test Runner Configuration: Parallel worker execution, retries, timeout policies & cross-browser sharding
- **Lecture 17:** Visual Regression Testing: Screenshot comparisons, pixel tolerance thresholds & visual UI change detection
- **Lecture 18:** Comprehensive Test Reporting: Playwright HTML reports, Allure reporter integration, JUnit XML & artifacts
- **Lecture 19:** CI/CD Integration: Configuring GitHub Actions workflows, headless execution & automated pull-request runs
- **Lecture 20:** SDET Capstone Project: End-to-End E-Commerce Flow, Framework Defense, Resume Review & Mock Interviews

Hands-on Projects & Practical Deliverables

- **End-to-End E-Commerce Automation Suite:** Complete user flow including login, catalog search, cart operations & mock checkout
- **Hybrid UI + REST API Test Framework:** Validating database state via API prior to front-end UI verification
- **Production GitHub Actions CI/CD Pipeline:** Automated test execution on every commit with HTML reports and Slack notifications

Tools & Technologies

Microsoft Playwright, TypeScript, JavaScript, Node.js, VS Code, Git, GitHub Actions, Allure Report, Postman, Chrome DevTools

Why This Program?

- 100% Practical, code-first SDET curriculum focused on modern industry practices and scalable framework architecture
- Master Microsoft Playwright — the leading next-generation test automation platform rapidly replacing legacy frameworks
- Direct 1-on-1 mentorship from Senior SDETs and Principal Test Architects with extensive enterprise QA experience
- Comprehensive career assistance: real portfolio projects on GitHub, resume optimization, and mock technical interview rounds

Certification & Career Alignment

- **Target Roles:** Software Development Engineer in Test (SDET), QA Automation Engineer, Playwright Automation Lead
- **Key Portfolio Deliverable:** Production-grade GitHub repository featuring a complete Playwright TypeScript framework

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