

Cypress: E2E Testing & Custom Commands

Learn to build, debug and scale end-to-end tests with Cypress, from web element interactions to custom commands and CI integration.

5 Days

40 HOURS

8

MODULES

62

TOPICS

COURSE OVERVIEW

The Cypress course is a comprehensive training program designed for developers and QA engineers who want to master end-to-end testing using Cypress. This course covers everything from the basics of how Cypress works to advanced techniques for testing modern web applications. Learners will understand Cypress's unique architecture, how it differs from Selenium, and explore its rich set of features through hands-on exercises. Starting with installation and setup, learners will become familiar with Cypress's folder structure and configuration. The course then dives into interacting with web elements, understanding Cypress commands, and its asynchronous nature, which are crucial for writing robust tests. As the course progresses, participants will learn about Cypress basics, such as running tests in headless mode and debugging, before moving on to more advanced topics, including environment variables, custom commands, and API testing. By obtaining Cypress certification, participants will demonstrate their expertise in this powerful testing tool. This Cypress course is ideal for those looking to enhance their testing skills and ensure the reliability of their web applications, ensuring they are well-equipped to integrate Cypress into their continuous integration environment.

WHO THIS COURSE IS FOR

The Cypress course by Koenig Solutions is designed for professionals seeking to master end-to-end testing for web applications. It is suitable for:

QA Engineers and Testers

Software Developers in Test (SDET)

Frontend Developers

Full Stack Developers

DevOps Professionals

Technical Project Managers

Automation Test Engineers

QA Leads and Managers

Anyone interested in learning Cypress for web application testing

What You Will Learn

- Explain Cypress architecture and how it differs from Selenium
- Configure a Cypress project including folder structure and settings
- Interact with web elements such as checkboxes, dropdowns and frames
- Apply assertions and chaining to validate application behaviour
- Analyse asynchronous Cypress commands and jQuery differences
- Debug tests using logs, screenshots and headless mode
- Implement custom commands, fixtures, hooks and the Page Object Model
- Plan Cypress test execution within a CI environment using Jenkins

COURSE SYLLABUS

8 Modules, 62 Topics

01

Introduction to Cypress

TOPICS

- What is Cypress?
- Cypress Architecture
- How is Cypress different from Selenium?
- **Cypress.io Website:** “How it Works?”
- Cypress.io Website: “Features”
- Running Sample Code and Explaining Test Runner & Playground

02

Installation & Setup

TOPICS

- Prerequisites
- VS Code
- Node.js 12+
- Creating a Project
- Cypress Installation
- Cypress Configuration
- Understanding cypress.json and package.json Files
- Explaining Cypress Folder Structure

03

Interaction with Web Elements

TOPICS

- DOM Terminology
- Test Structure
- Types of Locators
- Writing the First Sample Test
- Launching a URL
- Finding Web Elements
- Implicit Waits, Pause, and Debugging
- Saving the Subject of a Command
- Using the Invoke Command
- Handling UI Elements
- Checkboxes & Radio Buttons
- Lists & Dropdowns
- Web Tables
- Popups & Tooltips
- Handling Child Windows
- Handling Frames

04

Cypress Assertions

TOPICS

Chaining Assertions · Working with Shadow DOM

05

Deep Dive into Cypress Commands & Asynchronous Nature

TOPICS

- Understanding get and find Commands
- Grabbing Text for Validations using the Cypress Text Command
- Difference Between jQuery Methods and Cypress Commands
- Handling Asynchronous Promises in Cypress
- Handling Invisible Elements in Cypress

06

Cypress Basics

TOPICS

- Running Tests in Headless Mode
- Using Implicit Waits, Pause, and Debug
- Validating the Count of Elements on a Page
- Understanding Cypress Logs
- Performing Browser Refresh & Reload
- Working with Variables and Aliases
- Capturing Screenshots

07

Cypress Advanced Features

TOPICS

- Environment Variables
- Using Fixtures
- Creating Custom Commands
- Working with Hooks
- Implementing Page Object Model (POM) in Cypress
- BDD with Cucumber
- Using Mocks and Stubs
- API Testing with Cypress
- Cypress Retries
- Using Cypress Reporters
- Running Tests on Different Browsers
- Cross-Browser Testing
- Performing Visual Testing
- Exploring the Cypress Dashboard

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Cypress End-to-End Testing

TOPICS

- Running Cypress Tests in a CI Environment
- Introduction to Git
- Introduction to Jenkins
- Running Cypress Tests in Different Browsers from Jenkins

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Delivery by certified instructors and subject matter experts
- Hands-on exercises throughout the course
- Course completion certificate from Koenig

ABOUT KOENIG

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training

Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

Visit koenig-solutions.com

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