KOENIG SOLUTIONS · COURSE OUTLINE

Web Application Front End Development

Learn to build enterprise-grade front-end applications with HTML5, CSS, JavaScript, React and Angular, from semantic markup to deployment.

15 Days	15	84	23
DURATION	MODULES	TOPICS	HANDS-ON ACTIVITIES

COURSE OVERVIEW

Build modern enterprise-grade front-end applications using HTML, CSS, JavaScript, Angular, and React

WHO THIS COURSE IS FOR

Fresh Graduates / Junior Developers / Corporate Employees

PREREQUISITES

- Basic programming knowledge (any language)

LEARNING OBJECTIVES

- Structure web pages using semantic HTML5 elements and forms
- Style and lay out pages with CSS, Flexbox and Grid
- Apply responsive design principles with media queries
- Manipulate the DOM and handle events with JavaScript
- Build functional React components using hooks and props
- Implement routing and API integration in React applications
- Develop Angular components, directives, pipes and forms
- Configure Angular services, dependency injection and HTTP calls

COURSE SYLLABUS

15 Modules, 84 Topics

DAY 1 HTML5 Fundamentals (Accelerated)

01 — 2 Hands-on Labs

TOPICS

How Web Applications Work · HTML5 Document Structure · Semantic Elements · Text, Lists, Links, Images · Tables & Forms Basics · Accessibility Essentials

DAY 2 Advanced HTML + CSS Fundamentals

02 — Hands-on Lab

TOPICS

Multimedia & Embedding · SEO Basics & Meta Tags · CSS Syntax & Selectors · Colors, Typography · Box Model · Display & Visibility

DAY 3 Layout & Responsive Design

03 — Hands-on Lab

TOPICS

Flexbox Layout · CSS Grid System · Positioning Techniques · Responsive Design Principles · Media Queries · Mobile-First Approach

DAY 4 JavaScript Essentials & DOM

04 — 2 Hands-on Labs

TOPICS

Variables, Data Types, Operators · Control Flow & Functions · ES6 Features · DOM Manipulation · Event Handling · Form Validation · Fetch API & Async/Await (Intro)

DAY 5 Introduction to React

05 — 2 Hands-on Labs

TOPICS

Why React · SPA Concept · React Architecture · Environment Setup (Vite/Create React App) · JSX · Functional Components · Props

DAY 6 React State & Events

06 Hands-on Lab

TOPICS

useState Hook · Event Handling in React · Conditional Rendering · Lists & Keys · Component Styling

DAY 7 React Hooks & Forms

07 Hands-on Lab

TOPICS

useEffect Hook · Component Lifecycle · Forms in React · Controlled vs Uncontrolled Components · Basic Performance Tips

DAY 8 Routing & API Integration (React)

08 Hands-on Lab

TOPICS

React Router · Navigation & Layouts · Fetching Data from APIs · Error Handling · Loading States

DAY 9 Advanced React Concepts

09 Hands-on Lab

TOPICS

Context API · Custom Hooks · Code Splitting & Lazy Loading · Best Practices & Folder Structure · Intro to State Management Concepts

DAY 10 Introduction to Angular

10 2 Hands-on Labs

TOPICS

Angular vs React (Enterprise Perspective) · Angular Architecture · Angular CLI & Project Setup · TypeScript Essentials for Angular · Components & Templates · Data Binding Types

DAY 11 Components, Directives & Pipes

11 Hands-on Lab

TOPICS

Component Interaction · Input & Output Decorators · Structural Directives (ngIf, ngFor, ngSwitch) · Attribute Directives · Pipes & Custom Pipes

DAY 12 Angular Forms

12 Hands-on Lab

TOPICS

Template-Driven Forms · Reactive Forms · Form Controls & Validation · Dynamic Forms · Form Best Practices

DAY 13 Services, DI & HTTP

13 Hands-on Lab

TOPICS

Angular Services · Dependency Injection · RxJS & Observables Basics · HTTP Client · REST API Integration

DAY 14 Routing & Modular Architecture

14 Hands-on Lab

TOPICS

Angular Routing · Lazy Loading Modules · Route Guards · Shared Modules · Application Architecture Best Practices

DAY 15 UI Frameworks, Optimization & Deployment

15 5 Activities

TOPICS

Angular Material / Bootstrap Integration · UI Component Libraries · Performance Optimization · Production Build · Deployment Strategies (Cloud/Static Hosting) · Code Review & Best Practices

HANDS-ON ACTIVITIES

Practise What You Learn

#	MODULE	ACTIVITY
01	**HTML5 Fundamentals (Accelerated)**	HANDS-ON LABS ■ Create structured corporate webpage ■ Build user registration form
02	**Advanced HTML + CSS Fundamentals**	**Hands-on Labs:** Build landing page with styled sections
03	**Layout & Responsive Design**	**Hands-on Labs:** Build responsive dashboard layout
04	**JavaScript Essentials & DOM**	HANDS-ON LABS ■ Build interactive To-Do application ■ Consume public API
05	**Introduction to React**	HANDS-ON LABS ■ Create first React application ■ Build reusable components
06	**React State & Events**	**Hands-on Labs:** Build dynamic task manager app
07	**React Hooks & Forms**	**Hands-on Labs:** Build form-based application
08	**Routing & API Integration (React)**	**Hands-on Labs:** Build multi-page React application
09	**Advanced React Concepts**	**Hands-on Labs:** Enhance application with shared state
10	**Introduction to Angular**	HANDS-ON LABS ■ Create Angular application ■ Build basic components
11	**Components, Directives & Pipes**	**Hands-on Labs:** Build dynamic UI using directives
12	**Angular Forms**	**Hands-on Labs:** Build enterprise-style data entry form
13	**Services, DI & HTTP**	**Hands-on Labs:** Connect Angular app to backend service
14	**Routing & Modular Architecture**	**Hands-on Labs:** Build multi-module enterprise application
15	**UI Frameworks, Optimization & Deployment**	CAPSTONE PROJECT (CHOOSE ONE) ■ Employee Management System ■ E-Commerce Front-End ■ Corporate Dashboard ■ CRM Interface ■ Project Management Tool

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

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