

KOENIG SOLUTIONS · COURSE OUTLINE

Beginner to React JS Development

Learn to build web interfaces with HTML5, CSS3 and JavaScript, then develop component-based applications using React and routing.

5 Days

DURATION

19

MODULES

60

TOPICS

1

HANDS-ON ACTIVITIES

COURSE OVERVIEW

This course begins with HTML5 and CSS fundamentals, covering semantic tags, the box model and responsive design with media queries, before moving into JavaScript essentials such as variables, functions, the DOM, events and ES6+ features. It then introduces React, covering JSX, functional and class components, props, state and event handling, followed by parent-child communication patterns. Later modules address component lifecycle methods, hooks such as `useEffect` and `useState`, rendering lists, conditional rendering and building forms with controlled and uncontrolled components. The course concludes with routing using `react-router-dom`, including nested routes and URL parameters, culminating in a capstone project combining routing, forms and component communication.

WHO THIS COURSE IS FOR

Front-End Developers

Web Developers

JavaScript Developers

UI Developers

Software Engineers

LEARNING OBJECTIVES

- Apply HTML5 semantic tags and basic forms to structure web pages
- Style page layouts using the CSS box model and media queries
- Implement JavaScript functions, DOM manipulation and event handling
- Apply ES6+ features such as destructuring, spread operators and `map`
- Build functional and class components using JSX, props and state
- Explain parent-child communication patterns including props drilling
- Implement component lifecycle methods and hooks such as `useEffect`
- Configure routing using `react-router-dom` with nested routes

19 Modules, 60 Topics

DAY 1 HTML5 & CSS Fundamentals

01

9:00-11:00 AM

HTML Basics & HTML5 Features

TOPICS

Introduction to Front-End Development · Installing Developer Tools · Creating the First HTML File · Text, List, Image, and Link Tags · Tables and Basic Forms · HTML5 Semantic Tags · Adding Media and Intro to Web APIs

02

11:15 AM-1:00 PM

CSS Fundamentals

TOPICS

Introduction to CSS · Properties & Selectors · External, Internal, and Inline Styles · Fonts, Colors, Text, and Backgrounds · Box Model, Borders, Margins, Padding

03

2:00-3:30 PM

Advanced CSS Techniques

TOPICS

Position, Float, Display · CSS Pseudo-classes and Pseudo-elements · CSS Combinators · CSS Image Gallery, Sprites, Opacity · Media Queries for Responsiveness

04

3:45-5:00 PM

Hands-on Lab

TOPICS

- Build a responsive landing page using HTML5 and CSS3

DAY 2 JavaScript Essentials & Forms

05

9:00-11:00 AM

JavaScript Basics

TOPICS

- Variables (Local vs Global), Data Types
- Operators and Control Statements
- Functions and Scope
- JavaScript Objects (Array, String, Date, Math)

06

11:15 AM-1:00 PM

DOM and Events

TOPICS

- DOM Basics and getElement Methods
- innerHTML vs innerText
- **Events:** addEventListener, onClick, dblclick, onLoad
- **Functions:** Declarations vs Expressions, Closures, this

07

2:00-3:30 PM

Forms & Validations

TOPICS

Creating and Validating Forms · Text Fields, Select Boxes · Adding/Removing Options · Form Serialization & Rich Text Interactions

08

3:45-5:00 PM

ES6+ Features and Hands-on Lab

TOPICS

De-structuring, template literals · Spread/rest operators, map(), & filter()

HANDS-ON LAB

- Create a dynamic form with validations and JavaScript DOM manipulation

DAY 3 Introduction to React & JSX

09

9:00-11:00 AM

React Setup & Hello World

TOPICS

Why React? Problems it Solves · Setting up with Create React App · **JSX:** Syntax, Usage of JSX · First Functional & Class Components

10

11:15 AM-1:00 PM

Props, State & Events

TOPICS

Props & State Basics · Functional vs Class Components · React Event Handling & Synthetic Events

11

2:00-3:30 PM

Parent-Child Communication

TOPICS

Children Components · Props Drilling · Parent to Child and Vice Versa Communication

12

3:45-5:00 PM

Hands-on Lab

TOPICS

- Build a simple profile component with props, state, and event handling

DAY 4

Component Lifecycle & Lists

13

9:00-11:00 AM

Component Lifecycle

TOPICS

Mounting, Updating, Unmounting · useEffect, useState, useRef · Error handling and error boundaries

14

11:15 AM-1:00 PM

Working with Lists

TOPICS

Rendering Lists with map · Using key Property · Conditional Rendering

15

2:00-3:30 PM

Forms in React

TOPICS

Controlled vs Uncontrolled Components · Form State Management · Extracting Form Data

16

3:45-5:00 PM

Hands-on Lab

TOPICS

- Build a contact form component with validations and error handling

DAY 5

Routing and Final Integration

17

9:00-11:00 AM

React Routing Basics

TOPICS

What is Routing and Why? · Using react-router-dom · Tying Components to URLs

18

11:15 AM-1:00 PM

Dynamic Routing & URL Parameters

TOPICS

Nested Routes · Passing Parameters in URL · Navigation using Link, useNavigate

Capstone Lab

TOPICS

- Build a mini single-page app with routing, forms, and component communication (e.g., Product Catalog or Blog)

WHAT IS INCLUDED

Everything You Need to Succeed

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

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