

KOENIG SOLUTIONS • COURSE OUTLINE

React with Node.js and Express

Learn to build React front ends and Node.js with Express back ends, from components and routing to RESTful APIs and deployment.

12

MODULES

99

TOPICS

COURSE OVERVIEW

This course covers building user interfaces with React, starting with setting up a development environment and understanding full stack architecture, then refreshing core ES6 features used throughout. It moves through creating and composing components, managing props and state, adding client-side routing, building forms, and calling backend services before covering deployment. On the server side, it covers Node.js fundamentals and its module system, working with the Node Package Manager, and building RESTful APIs using Express, including routing and handling HTTP GET and POST requests.

WHO THIS COURSE IS FOR

Front-End Developers

Back-End Developers

Full Stack Developers

Web Developers

JavaScript Developers

LEARNING OBJECTIVES

- Explain React's architecture and set up a development environment
- Apply ES6 features such as arrow functions and destructuring
- Build React components and compose them into larger structures
- Manage props and state across parent and child components
- Configure client-side routes with React Router
- Implement forms with controlled elements and validation
- Call backend services to get, create, update and delete data
- Develop RESTful APIs with Node.js, Express and npm packages

12 Modules, 99 Topics

01

Introduction to React

TOPICS

What is React? · Setting up the development environment · Hello React · Full Stack Architecture

02

ES6 Refresher

TOPICS

- Introduction
- Let vs Var vs Const
- Objects
- The “this” keyword
- Arrow function
- Arrow function and this
- Array map method
- Object destructuring
- Class
- Inheritance
- Modules

03

Components

TOPICS

- Introduction
- Setting up project
- First React Component
- Embedding Expressions
- Setting Attributes
- Rendering classes dynamically
- Rendering Lists
- Conditional rendering
- Handling Event
- Binding Event Handlers
- Updating the state
- State Change
- Passing Event Arguments

04

Composing Components

TOPICS

- Introduction
- Composing Components
- Passing Data to Components
- Passing children
- Props vs State
- Raising Handling Events
- Updating the State
- Single Source
- Removing the Local State
- Multiple Component in Sync
- Lifting the State up
- Stateless function Components
- Destructuring Arguments

05

Routing

TOPICS

Introduction · Setup · Adding Routes · Switch · Link

06

Forms

TOPICS

- Introduction
- Building a Bootstrap Form
- Handling Form Submission
- Refs
- Controlled Elements
- Handling multiple Inputs
- Common error
- Extracting a Reusable input
- Validation

07

Calling Backend Services

TOPICS

Introduction · JSON placeholder · HTTP clients · Getting Data · Creating Data · Updating Data · Deleting Data

08

Deployment

01

Getting Started

TOPICS

What is Node? · Node Architecture · How Node Works · Installing Node · First Node Program

02

Node Module System

TOPICS

- Creating a Module
- Loading a Module
- Module Wrapper function
- Path Module
- OS module
- File System Module
- Events module
- Extending Event Emitter
- Http Module

03

Node Package Manager

TOPICS

- Introduction
- Package.json
- Installing a node package
- Using a package
- Package Dependencies
- NPM packages and Source control
- Semantic Version
- Listing the Installed Package
- Viewing Registering Info for a package
- Installing specific version of a package
- Updating Local Package
- Dev Dependencies
- Uninstalling a package
- Working with Global Package
- Publishing a Package

04

Building RESTful API Using Express

TOPICS

Introduction · Introduction Express · Building your first web server · Nodemon · Environment Variables · Route Parameters · Handling HTTP Get Request · Handling HTTP Post Request

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.

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Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

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