KOENIG SOLUTIONS · COURSE OUTLINE

React & Node: Express, MongoDB & MySQL CRUD

Learn to build React front ends and Node/Express back ends with CRUD operations against MongoDB and MySQL.

11 MODULES

33 TOPICS

COURSE OVERVIEW

This course begins with the fundamentals of React, covering environment setup, project structure, props, event handling, state management with hooks, consuming REST APIs with Axios, and routing with React Router. It then moves to the Node.js environment, including creating an HTTP server, working with requests and headers, handling POST data, and accessing the file system. The course continues with building web servers using Express, including routes and middleware, before covering database integration with MongoDB and Mongoose and CRUD operations against both MongoDB and MySQL.

WHO THIS COURSE IS FOR

- **React Developers**
- **Node.js Developers**
- **Front-End Developers**
- **Back-End Developers**
- **Full-Stack Developers**

LEARNING OBJECTIVES

- Set up a React development environment and project structure
- Pass and manage props between parent and child components
- Handle events within React components
- Manage component state using hooks such as useState and useEffect
- Consume RESTful APIs using the Axios library
- Configure routes and route parameters with React Router
- Create an HTTP server and handle requests, headers and POST data
- Implement CRUD operations using MongoDB, Mongoose and MySQL

COURSE SYLLABUS

11 Modules, 33 Topics

Welcome to React

TOPICS

Introduction · Setup Environment · First React Application · React Project Structure

Understanding Props

TOPICS

- Define Props in the Parent Component
- Receiving Props in the Child Component
- Combining JavaScript and Props to Render Content
- Rendering Arrays
- Rendering Multiple Elements
- Rendering No Content
- Attempting to Change Props
- Using Function Props
- Passing on Props to Child Components
- Providing Default Prop Values

Event Handling

State and the Component Tree

REACT STATE MANAGEMENT: REACT HOOK

useState · useEffect

Consume Restful API with Axios Library

React Router

TOPICS

Incorporating the Router · Nesting Routes · Route Parameters

01

Understanding Node Environment

TOPICS

Introduction · Creating an HTTP Server · The Request Objects · Working with Headers · Handling Post Data

02

Access the File System

TOPICS

- Directories & Iterating Over Files and Folders
- Reading from File
- Writing to a File

03

Using Express

TOPICS

- Installing Express and Making it Easier to Build Web Server
- Routes
- Middleware

04

Databases

TOPICS

MongoDB and Mongoose · CRUD Operation Using MongoDB

05

Working with MySQL

TOPICS

CRUD Operation Using MySQL

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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