KOENIG SOLUTIONS · COURSE OUTLINE

React & Docker: Components & Container Deployment

Learn to build React applications with JSX and components, then package and deploy them using Docker containers.

7 MODULES

30 TOPICS

COURSE OVERVIEW

This course introduces React fundamentals alongside the modern JavaScript features that support it, including ES6 variables, arrow functions, and classes. It covers building applications with pure React and JSX, exploring the virtual DOM, elements, and components, before moving into props, state, and the component tree. Learners then work with external web services through React Router and CRUD operations against web APIs. The course concludes by preparing a React application for a container image and publishing it to Docker.

WHO THIS COURSE IS FOR

- **Front-End Developers**
- **JavaScript Developers**
- **React Developers**
- **Web Developers**
- **DevOps Engineers**

LEARNING OBJECTIVES

- Explain the virtual DOM and how React elements are rendered
- Apply ES6 features such as arrow functions, classes and promises
- Build React components using JSX and Babel
- Manage state and props within a component tree
- Implement routing with React Router
- Perform CRUD operations against external web APIs
- Prepare a React application for a container image
- Deploy a React application using Docker

COURSE SYLLABUS

7 Modules, 30 Topics

01

Welcome to React

TOPICS

Obstacles and Roadblocks · React's Future

WORKING WITH FILES

React Developer Tools · Installation Node JS

02

Emerging JavaScript

TOPICS

Declaring Variable in ES6 · Arrow function · Transpiling ES6 · ES6 Objects and Arrays · Promises · Classes

03

Pure React

TOPICS

Page Setup · The Virtual DOM · React Elements · React DOM · Children · Constructing Elements with Data · React Components · DOM rendering

04

React with JSX

TOPICS

React Elements as JSX · Babel · Intro to Webpack

05

Props, State and the Component Tree

TOPICS

Property Validation · Refs · React State Management · State within component Tree

06

Working with External Web Services

TOPICS

React Router · CRUD operation with Web APIs · Request and Response

07

Docker

TOPICS

Preparing React App for Container Image · Publish Image to Container

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.

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