

REACT PROFESSIONAL DEVELOPER COURSE SCHEDULE

Week 1: Introduction to React Components and State Management

Monday: Understanding React Components

- Lesson 1.1: Basic structure of React components
- Functional vs. Class components

Tuesday: State and Props

- Lesson 1.2: Definition and differences between state and props
- Utilizing state and props within components

Wednesday: Event Handling in React

- Lesson 1.3: Implementing event handlers for user interactions
- Understanding synthetic events

Thursday: State Management with Hooks

- Lesson 2.1: Introduction to useState and useReducer
- Best practices for managing state

Friday: Context API

- Lesson 2.2: Understanding the Context API
- Implementing context in a React application

Week 2: Advanced State Management and Event Handling

Monday: External State Management Libraries

- Lesson 2.3: Overview of Redux
- Integrating Redux with React

Tuesday: Advanced Event Handling

- Lesson 3.1: Implementing event handlers for various user interactions
- Managing form events and submissions

Wednesday: Synthetic Events in Depth

- Lesson 3.2: Utilizing synthetic events for consistent event handling
- Understanding event pooling

Thursday: React Component Lifecycle

- Lesson 4.1: Recognizing lifecycle methods in class components

**Students will receive a certificate of completion upon successful completion of this course.*



- Transitioning to functional components with hooks

Friday: Utilizing Hooks

- Lesson 4.2: Applying good practices for using hooks
 - Using useEffect for managing side effects and performance
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Week 3: Rendering, Performance Optimization, and Routing

Monday: Optimizing React Components

- Lesson 5.1: Creating and optimizing components for performance
- Utilizing keys for efficient rendering of lists

Tuesday: Memoization Techniques

- Lesson 5.2: Implementing React.memo and useMemo
- Understanding performance considerations in React

Wednesday: Introduction to React Router

- Lesson 6.1: Implementing routing with React Router
- Managing navigation in a React application

Thursday: Dynamic and Nested Routing

- Lesson 6.2: Handling dynamic routes and route parameters
- Implementing nested routes

Friday: Testing Basics

- Lesson 7.1: Introduction to Jest and React Testing Library
 - Writing unit tests for React components
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Week 4: Testing, Styling, and Final Project

Monday: Integration Testing

- Lesson 7.2: Implementing integration tests for React applications
- Best practices for effective testing

Tuesday: CSS-in-JS Libraries

- Lesson 8.1: Styling components using styled-components
- Advantages of CSS-in-JS

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Wednesday: Global Styles and Pre-processors

- Lesson 8.2: Applying global styles with CSS or SASS
- Understanding the benefits of SASS in React

Thursday: Utility-first CSS Frameworks

- Lesson 8.3: Using Tailwind CSS for styling React components
- Customizing Tailwind for project needs

Friday: Final Project Kickoff

- **Culminating Project:** Start building a fully functional React application that incorporates all elements learned in the course.

Week 4 Wrap-up

- Students can continue working on their final project over the weekend and present it in the following week, if desired.

This schedule provides a clear structure for learning React over four weeks, allowing for focused study each day.

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