

# React Js Training

Topics : [Courses](#)

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## Module 1: Introduction to React.js

- What is React?
- React vs. Other JavaScript Frameworks (Angular, Vue)
- Setting Up a React Project with Create React App (`npx create-react-app my-app`)
- Understanding the React Project Structure
- Introduction to JSX (JavaScript XML)

## Module 2: React Components & Props

- Functional vs. Class Components
- Creating and Exporting Components
- Props in Components (`props.children`, Default Props)
- Conditional Rendering in React
- Rendering Lists (`.map()` method)

## Module 3: React State & Events

- Understanding State in React (`useState` Hook)

- Updating State in Functional Components
- Handling Events (onClick, onChange)
- Forms and Controlled Components

## **Module 4: React Hooks**

- Introduction to Hooks (Why Hooks?)
- `useState` for State Management
- `useEffect` for Side Effects and API Calls
- `useContext` for Context API
- Custom Hooks in React

## **Module 5: React Router (Navigation in React)**

- Setting Up React Router (`react-router-dom`)
- Route Parameters and Query Strings
- Protected Routes (Private Routes)
- Dynamic Navigation using `useNavigate`

## **Module 6: API Integration with React**

- Fetching Data using Fetch API & Axios
- Handling API Responses and Errors
- Displaying Data in React Components
- Loading and Error Handling in API Calls

## Module 7: State Management in React

### Context API

- Using React Context for State Management
- Global State with useContext

## Module 8: Performance Optimization in React

- Code Splitting and Lazy Loading (React.lazy, Suspense)
- Memoization with useMemo and useCallback
- Virtualization for Large Lists (react-window)

## Module 9: Authentication & Authorization in React

- Implementing Login and Logout with JWT
- Protecting Routes with Authentication
- Role-Based Authorization in React

## Module 11: Deployment & Final Project

- Building a Production-Ready React App (npm run build)
- Final Project: Building a Full-Stack React Application