React.js Training

Duration : 20 Hrs

Day 1: Introduction to React

- What is React?
- Why use React?
- Setting up the development environment (Node.js, npm, create-react-app)
- Hello World example
- JSX syntax and its advantages
- Components and component hierarchy
- Props and state

Day 2: Working with Components

- Creating functional components
- Class components and their lifecycle
- State and setState
- Handling events in components
- Conditional rendering
- Lists and keys
- Styling components (CSS-in-JS libraries like styled-components)

Day 3: Managing State and Data Flow

- State lifting
- One-way data flow
- Parent-child component communication
- Managing state with hooks (useState, useEffect)
- Fetching data from APIs
- Handling asynchronous operations
- Error handling in components

Day 4: Routing and Forms

- Introduction to React Router
- Setting up routes
- Navigating between routes
- Route parameters and query strings

- Building forms in React

- Controlled vs. Uncontrolled components

- Form validation

Day 5: Advanced Topics and Best Practices

- Context API for state management

- Props drilling and solution with Context

- React best practices

- Component performance optimization

- Introduction to Redux (state management library)

- Deployment options for React application