

React JS



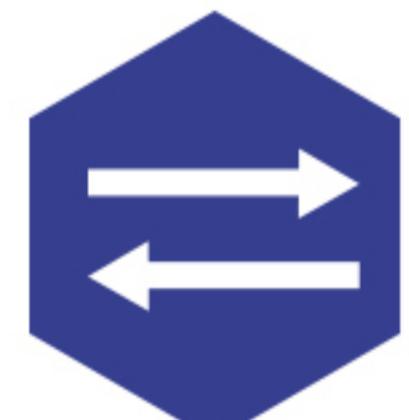
React JS curriculum

Duration: 1 Month



Introduction to React.js

- Setting up a React development environment (e.g., Node.js, npm, Create React App)



Creating Your First React Application

- Hello World example
- Understanding React components
- JSX syntax



Understanding Components and Props

- Functional components
- Class components
- Passing and using props





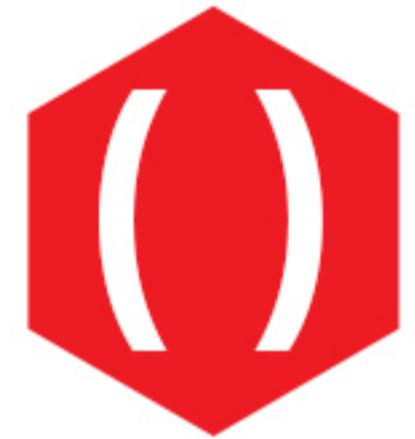
State and Lifecycle

- State in React components
- Updating state
- Component lifecycle methods



React Hooks

- useState()
- useEffect()
- useContext()



Handling Events

- Event handling in React
- Binding event handlers
- Arrow functions vs. regular functions



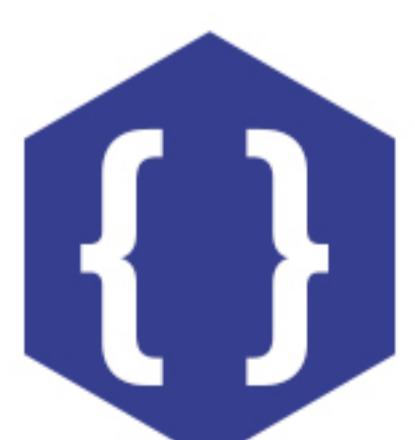
Working with Forms

- Controlled components
- Handling form submission
- Form validation



Conditional Rendering

- Conditional rendering with if statements
- Ternary operators and logical && in JSX



Lists and Keys

- Rendering Lists
- Using .map() to render lists of elements
- Providing a key for each item



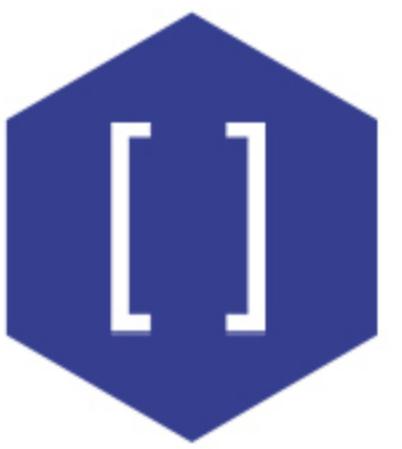
Understanding Keys

- The importance of keys in React
- Choosing the correct key



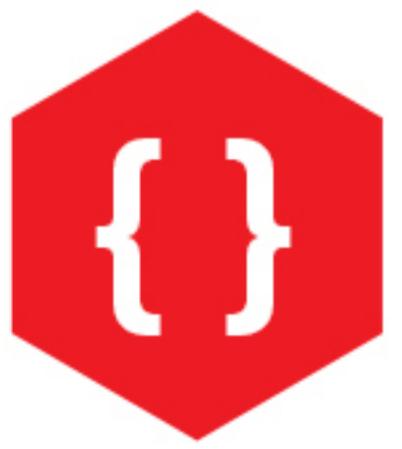
Styling in React.js

- CSS in React
- Different approaches for styling (CSS, CSS-in-JS, CSS Modules)
- Inline styles
- Styling Libraries
- Popular CSS frameworks (e.g., Bootstrap, Material-UI)



React Router

- Introduction to React Router
- Setting up React Router
- Creating routes
- Navigating with React Router
- Using Link and NavLink
- Nested Routes and Dynamic Routing
- Nested routes
- Passing parameters to routes



State Management with Redux

- Introduction to Redux
- Understanding the need for state management
- Basic concepts: actions, reducers, store
- Setting Up Redux
- Installing Redux and setting up a store
- Creating actions and reducers
- Connecting React with Redux
- Using connect to connect components to the store
- Dispatching actions



Asynchronous Programming and API Integration

- AJAX and Fetch API
- Making HTTP requests in React
- Fetching data from an API
- Async/Await and Promises



Handling errors in React applications

- Error Handling and Debugging
- Debugging React apps
- Performance Optimization
- Memoization
- React.memo and PureComponent



Hands-on Projects

- Hospital Management System:- It is a single Page application. In which doctors and patients are available. Using ReactJS, json-server package.
Doctors are going to be added based on their Specialization.
Patients are going to book appointments for a Specific Doctor.
- Online Banking Application:- A simple online-banking application allows you to perform day to day banking activities.
New User Registration
Login
Deposit
Withdrawal
Fund Transfer



Deploying a React application

- Deployment Cloud Services (Netlify, Vercel, AWS)