

# React JS Course Syllabus

## Module 1: What is React JS?

- React JS Introduction
- Advantages of React JS
- Workflow of React JS
- Scope of React JS

## Module 2: Overview of JSX

- Introduction of Virtual DOM.
- Difference between JS and JSX.
- React Components overview
- Containers and components
- What is Child Components?
- What is Name spaced components?
- What are the JavaScript expressions available in JSX?

## Module 3: React JS Environment Setups

- Node setup
- How to use NPM?
- How to create package.json and purpose of it?
- ES6 Introduction and features.
- Webpack Overview
- Best IDE for React JS and How to write optimized code in React JS?
- React JS browser plugins overview.

### Real-time Practicals

- NPM Installation by locally and Globally
- Create a Basic App with ReactJS and other Supported NPMs.

## **Module 4: A Real-Time Application by using ReactJS**

- Create a React component with JSX template.
- How to create Nested Components?
- What is ReactJS render?
- React Props overview.
- Introduction of Props validation with data types.
- Flow of States, Initialize states and update states.

### **Real-time Practicals**

- Create a Small React Module
- Use All the states in in the created Application.

## **Module 5: ReactJS forms and UI**

- Lists of Form components.
- Setup Controlled and Uncontrolled form components.
- Control Input elements.
- How to set default values on all formats of Input elements.
- ReactJS Form validations.
- How to write Styles?
- Animations overview

### **Real-time Practicals**

- Create a React Form.
- Client-side form validation.
- Applying form components.
- Submit and Rest the form.

## **Module 6: ReactJS Component Life Cycles Overview**

- Initial Render
- Props Change
- Stage Change
- Component willMount
- Component didMount
- Component Unmount

### **Real-time Practicals**

- Applying Different Lifecycles in the Application.
- When to choose Appropriate lifecycles.

### **Module 7: Routing in ReactJS and Other JS concepts**

- Single Page Application Overview.
- How to configure React Router?
- History of Router
- How to Handle Conditional statement in JSX?
- IIFE in JSX for complex logic overview.

### **Real-time Practicals**

- Create a Single Page Application.
- Applying Routing.
- Dynamically render the components based on the url.

### **Module 8: Event Handling in JSX**

- onBlur, onKeyUp, onChange and other useful primary events in ReactJS.
- How to Sharing events between the components?

### **Real-time Practicals**

- Communicate Data between components.
- Applying all lists of events.

### **Module 9: How to write Styles in ReactJS?**

- CSS and inline styles in ReactJS overview.
- Introduction to styled components

### **Real-time Practicals**

- Styling the application using styled component
- How to use Animations in the Application.

## **Module 10: React Router with Navigation**

- How to Load the router library?
- Configure the React Router?
- How to Pass and receive parameters?
- Integration of React-cookie overview.

## **Module 11: Flux overview**

- What is Flux Architecture?
- What are the Flux Components available?
- Stores.
- Dispatchers.
- View Controllers.
- Actions.
- Views.
- How Flux works?
- Flux and React works together.

## **Module 12: Redux Overview**

- Introduction to One Store.
- Provider Component
- Actions.
- Reducers.
- sagas
- Dispatchers
- View Controllers
- Selectors

### **Real-time Practical's**

- Redux application Development with Real-time Project

## **Module 13: Unit Testing Overview**

- What are the necessary Tools required for Unit Testing?
- React Unit Testing overview
- Introduction to JEST.
- How to Test React Component?
- How to Test React Router?