React.JS

Training Course Content
Day Wise

Training Prerequisite:

- HTML
- CSS
- JavaScript
- OOJS
- ES6

Duration: 50Hr

React JS Course Content Day Wise:

Day - 01
I. Introduction
1. Introduction to React JS and its popularity
2. Introduction to Single Page Application
3. Introduction to React Key features
4. Declarative vs Imperative
5. Component Architecture
6. One Way data flow
7. Virtual DOM
8. Component Reusability
9. Functional Programming (Immutability)
10. JavaScript vs jQuery
11. jQuery is not preferred in React
12. MVC Architecture
13. Introduction to JSX Syntax
Day - 02
II. ES6 (Essentials)
1. Let vs Var vs Const
2. Arrow Functions
3. Enhanced Object Literals

4. Destructuring
Day - 03
5. Template Literals
6. Rest & Spread
7. ES6 Classes & Modules
III. Installation
1. Node installation
2. NPM vs YARN
3. Create React App installation
4. Package.json file importance in the project
5. React and React DOM
IV. React Components
1. Class Components
2. Functional Components
3. Expression Evaluation (Dynamic content) in JSX
4. Todo Application setup
5. Folder Structure and Components Creation - (Atomic Design Structure)
Day - 04
6. Introduction to state.
7. Setting state and re-render component
8. setState method
9. Introduction state in Todo Application
10. Importance of array methods (Ex: map) in react components
11. Importance of Key attribute in iterated elements
12. Event Handling in React
Day - 05
V. Rendering Styles
1. Inline Styling

2. Global Styling
3. Module Styling
4. Styled Components
5. Introduction Styles in Todo Application

Day - 06

VI. Debugging

1. Error Messages in React JS
2. React Developer Tools

VII. Communication between Components

1. Ways to achieve communication between components
2. Props
3. Parent to Child communication
4. Child to Parent communication

Day - 07

VIII. Component State

1. will child component updated when parent is re-rendered ?

IX. Fetching content from Server

1. Using fetch in JavaScript
    a. Get Request
    b. Post Request
2. Using Axios Library
    a. Get Request
    b. Post Request

Introducing E-Commerce application

Day - 08

X. Component Life Cycle in React

1. Introduction to Component Life Cycle

2. Stateless vs Stateful Components
3. Component life Cycle phases
a. Mounting b. Updation
c. Unmounting
4. Life Cycle methods
a. ComponentWillMount (Deprecated)
b. ComponentDidMount
c. ComponentWillReceiveProps (Deprecated)
d. ShouldComponentUpdate
e. ComponentDidUpdate
f. ComponentWillUnMount
g. Constructor
Getting Dummy Data(Products Information) to E-Commerce Application
Day - 09
XI. React Hooks
1. Life Cycle methods Vs Hooks
2. React Hooks in v16
a. useState
b. useEffect
c. useReducer
d. useRef
e. useCallback
f. useMemo
3. Custom/User Defined Hooks
Getting Data(Products Information) from API to E-Commerce Application
Day - 10
4. Higher Order Components

5. Custom/User Defined Higher Order Component

Day - 11

XII. Routes

1. What is routing ?
2. Routing Library:
    a. Installing React-Router-DOM
    b. Browser Router Component
    c. Hash Router Component
3. How to create routes
4. Route Component
5. <Link> Component
6. <NavLink> Component
7. <Switch> Component
8. <When> Component
9. <If> Component

Redirecting to Pages in E-Commerce

Day - 12

10. Exact property vs Switch Component
11. Route Param's
12. history
13. match
14. location
15. state
16. Context API

Day - 13

XIII. Unit Testing

1. Introduction
2. Creating Components

3. Running the Application
4. Running the Placeholder Unit Test
5. Testing a Component Using Shallow Rendering
6. Testing a Component with Full Rendering
7. Testing with Props, State, Methods, and Events
Day - 14
XIV. Introduction to Redux
1. Three Core Redux Principles
2. Redux Flow
3. Introduction to react-redux
4. Map props to state
5. Map dispatch to props
Day - 15
6. Connect method
7. Introduction to redux-thunk & redux-saga
XV. Projects
1. E-Commerce Application Development finalize.
Using Redux in E-Commerce Application and Maintaining the state