# ReactJS Training

Total Duration: 50 hours

#### What is React JS?

- React JS Introduction
- Advantages of React JS
- Work flow of React JS
- Scope of React JS

#### Overview of JSX

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

# **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?
- Debugging tools
- React JS browser plugins overview.

# A Real-Time Application by using React JS

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

#### React JS 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.

- React JS Form validations.
- How to write Styles?
- Animations overview

## React JS Component Life Cycles Overview

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

## Routing in React JS 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.

## **Event Handling in JSX**

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

## How to write Styles in React JS?

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

#### Internationalization

- React i18n
- Multiple language support

## UX/UI Design

- Theming
- Component libraries
- Fragment

## **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.

#### Flux overview

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

## **Redux Overview**

- Redux
- Redux-thunk
- Redux-saga
- redux-persist or react-native-async-storage

## Making Api with Axios

# **Advanced Topics**

- Context API
- Render props
- React hooks
- HOC Pattern
- Code-splitting and lazy loading
- Apply (MVVM) architectural pattern into a React

# Introduction to third party libraries

- Top third party react libraries that can be used readily
- Enzyme
- React Virtualized
- React DnD
- Encryption libraries

# **Testing**

Unit testing using JEST, RTL

# **Performance Optimization**

# **React Native**

- What is React Native?
- React Native Architecture
- React Native Fabric Rendering System

- Cross Platform Architecture
- View Flattering
- Threading Model

## UI

- Core components
- Native Components
- User Input
- Scroll View
- List View
- Style Sheet
- Platform Module
- Platform Specific file extensions
- Navigation
- Animations

# Development

- Setting Up environment
- Integration with existing Apps
- Building for Android/Linux
- Testing in Devices
- Using Libraries
- Headless JS
- Debugging
- Stack trace
- Testing
- Upgrading New versions
- New Architecture
- Migration

# **Linux Target Building**

- Valence Native/Proton Native
- UI
- Window
- Packaging
- Debugging
- Native Components