# React Js v.16



#### Course Goals and Non Goals

- Course Goals
  - Learning the ReactJS
- Course Non Goals
  - Comparison with Angular2, Redux dev tools





## Pre-requisites

HTML, JavaScript-OOPS & jQuery Basics



#### **Intended Audience**

Web application developers





- Day 1
- React Introduction
  - Overview of frameworks, libraries for client side Web applications
  - React introduction,
  - Understanding "what" and "why" React
  - React Component Demonstration using codepen
  - Environment Setup for React Application
  - Understanding NPM commands
  - Using VS Code
  - VS Code extensions for ES6, React
  - Helloworld app in React



- Day 1
- React Essential Features and Syntax
  - React App Project Directory Structure
  - Overview of Webpack, Babel
  - React Component Basic
  - Create React Component
  - Understanding JSX
  - Limitations of JSX
  - Working with Components and Reusing Components



- Day 2
- React Components, Props and State
  - Understanding and using Props and State
  - Manipulating the State
  - Two way data-binding
  - Functional (Stateless) VS Class (Stateful) Components
  - Parent Child Communication
  - Dynamically rendering contents
  - Showing Lists, List and keys
- Styling Components
  - CSS Styling
  - Scoping Styles using Inline Styles
  - Limitations of inline styes
  - Inline Styles with Radium
  - Using Psuedo classes/media quries with inline styles
  - CSS Modules, importing css classes
  - Adding Bootstrap, Semantic UI to React apps
  - Using react-bootstrap, reactstrap packages



#### Day 3

- Debugging React Apps
  - Understanding React Error Messages
  - Handling Logical Errors,
  - Debugging React apps using google developer tools and React DevTool
    - Understanding Error Boundaries
- React Component life cycle
  - Updating life cycle hooks
  - PureComponents
  - React's DOM Updating Strategy
  - Returning adjacent elements
  - Fragments



Day 4

#### Component in Details

- Higher Order Components
- Passing unknown Props
- Validating Props
- Using References
- React Context API
- Updated LifeCycle hooks (16.3)
- Best practices for React Projects
- Demo apps



- Day 5
- HTTP Requests/Ajax Calls
  - HTTP Requests in React
  - Introduction of Axios package
  - HTTP GET Request, fetching & transforming data
  - HTTP POST, DELETE, UPDATE
  - Handing Errors
  - Adding/Removing Interceptors
  - Creating/Using Axios intances



Day 6

#### React Routing

- Routing and SPAs
- Setting Up the Router Package
- react-router vs react-router-dom
- Preparing the Project For Routing
- Switching Between Pages, Routing-Related Props
- The "withRouter" HOC & Route Props
- Passing & extracting route/query parameters
- Using Switch to Load a Single Route
- Navigating Programmatically



- Day 7
- React Forms and Form Validation
  - Creating a Custom Dynamic Input Component
  - Setting Up a JS Config for the Form
  - Dynamically Create Inputs based on JS Config
  - Adding a Dropdown Component
  - Handling User Input
  - Handling Form Submission
  - Adding Custom Form Validation
  - Fixing a Common Validation
  - Adding Validation Feedback
  - Showing Error Messages
  - Handling Overall Form Validity
- Deploying React App to the Web
- GULP
  - Gulp-JavaScript Task Runner
  - Gulp API
  - Creating React Component modules
  - Creating gulpfile.js



#### References

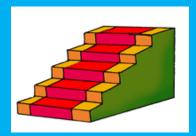
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- https://reactjs.org/docs/react-api.html
- https://gkedge.gitbooks.io/redux-course-notes/
- https://blog.pusher.com/getting-started-with-react-router-v4/
- https://thinkster.io/tutorials/getting-started-with-react
- https://www.kirupa.com/react/creating\_single\_page\_app\_react\_us ing\_react\_router.htm
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- www.medium.com





# Next Step Courses (if applicable)

Creating application using React native and Redux





# Other Parallel Technology Areas

React Devtools

