

Module 1: ES6 Primer

- History of Javascript
- What is ES6
- A word on bable
- Block scope, let & const
- Template literals
- Arrow functions
- Spread and Rest operators
- Object literal improvements
- Destructuring
- Classes
 - Inheritance
 - Static properties and methods
- Promises
- Iterators and Iterables
- Generators
- Modules
- Set and Map

Module 2: Introduction to React

- What is React?
- Why React?
- React version history
- React 16 vs React 15
- Just React - Hello World
- Using create-react-app
- Anatomy of react project
- Running the app
- Debugging first react app

Module 3: Templating using JSX

- Working with React.createElement
- Expressions
- Using logical operators
- Specifying attributes
- Specifying children

Module 4: It's all about components

- Significance of component architecture
- Types of components
 - Functional
 - Class based

- o Pure
- Component Composition

Module 5: Working with state and props

- What is state and its significance
- Read state and set state
- Passing data to component using props
- Validating props using propTypes
- Supplying default values to props using defaultProps

Module 6: Rendering lists

- Using React key prop
- Using map function to iterate on arrays to generate elements

Module 7: Event handling in React

- Understanding React event system
- Understanding Synthetic event
- Passing arguments to event handlers

Module 8: Understand component lifecycle

- Understand component lifecycle

Module 9: Working with forms

- Controlled components
- Uncontrolled components
- Understand the significance of defaultValue prop
- Using react ref prop to get access to DOM element

Module 10: Routing with react router

- Setting up react router
- Understand routing in single page applications
- Working with BrowserRouter and HashRouter components
- Configuring route with Route component
- Using Switch component to define routing rules
- Making routes dynamic using route params
- Working with nested routes
- Navigating to pages using Link and NavLink component
- Redirect routes using RedirectComponent
- Using Prompt component to get consent of user for navigation
- Pathless Route to handle failed matches

Module 11: Just Redux

- What is redux
- Why redux
- Redux principles
- Install and setup redux
- Creating actions, reducer and store

Module 12: Immutable.js for immutable data structures

- What is Immutable.js?
- Immutable collections
- Lists
- Maps
- Sets

Module 13: React Redux

- What is React Redux
- Why React Redux
- Install and setup
- Presentational vs Container components
- Understand high order component
- Understanding mapStateToProps and mapDispatchToProps usage

Module 14: Redux Saga(Redux middleware)

- Why redux middleware
- Available redux middleware choices
- What is redux saga
- Install and setup redux saga
- Working with Saga helpers
- Sagas vs promises

Module 15: Unit testing in react

- Understand the significance of unit testing
- Understand unit testing jargon and tools
- Unit testing react components with Jest
- Unit testing react components with enzyme

Module 16: New Features in React JS

- Understand error boundaries (new in React 16)
- Understand react portals (new in React 16)

Module 17: Webpack primer

- What is webpack
- Why webpack
- Install and setup webpack
- Working with webpack configuration file
- Working with loaders
- Quick word on code splitting, lazy loading, tree shaking
- Setting up Hot Module Replacement

Module 18: Server-side rendering with React

- What is server-side rendering (SSR)?
- Why SSR
- Working with renderToString and renderToStaticMarkup methods