

REACT & REDUX BOOTCAMP

OVERVIEW

3 modules

8 hours/module

React is a web front-end library used to create user interfaces, i.e. a view in MVC architecture. Originally created at Facebook, it is now a free and open-source framework maintained by Facebook, Instagram and some other individual developers and corporations. It is not a full-fledged Single Page Application (SPA) framework unlike Angular, and hence other libraries like React Router and Redux are required to build an SPA. Additionally, a module bundler like Webpack is usually used in a React application.

Redux is a state management library. It can be used with any framework or standalone but is popularly used in a React app. It manages the state of an application and helps them behave consistently across different platforms.

PREREQUISITES

- Working knowledge of HTML, CSS
- Good knowledge of JavaScript including object-oriented JS features like object prototypes etc. ES2015 (ES6) knowledge is a plus but not necessary.
- Bootstrap knowledge is a plus, but not necessary

CHAPTERS AND TOPICS

Pre-requisites

- Basics of Babel and ES2015 (ES6) for React
- The Single Page Application (SPA) architecture
- The SystemJS Universal Module Loader
- Brief introduction to Webpack

Introduction to React

- Overview of React, Redux and React Router
- Underlying concepts – Data-binding, virtual DOM, routing etc.
- Getting started with React – including it in your application
- Scaffolding a React application using boilerplate code
- Understanding the Project Structure and build process

Using JSX

- What is JSX?
- JSX for components
- HTML attributes
- Unescaping content

Components

- Creating Components
- Taking inputs using props
- Maintaining component state using state
- Lifecycle methods
- Composing components

Routing

- Introduction to React Router
- Route configuration
- Handling params and querystring

Using links to setup navigation
Handling redirects
Hooks in routing

Redux

Three core Redux principles
Redux flow overview
Actions and Stores
Immutability
Reducers
Middleware in Redux and popular Redux middleware
Implementing custom middleware
React-Redux introduction
mapStateToProps and mapDispatchToProps

Redux Flow

Actions
Reducers and root reducers
Instantiating store and provider
Action type constants

Async in Redux using Redux Saga

Async library options
Introduction to Redux Saga
Understanding yield
Redux Saga Effects and Interaction between Sagas

Production Builds

Setting up the production Redux store
Webpack setup
HTML build setup
Dist server setup