

Developing Modern Web Applications with React

Duration:

5 Days

What you will learn

By the end of the course, you will have the fundamentals needed to get started in developing modern front-end web applications.

Learn To:

- Develop single page applications (SPAs)
- Create Components
- Use state properly
- Make HTTP calls
- Manage state with Redux

Benefits to You

Get up to speed quickly and start developing modern web applications with React.

Audience

- Web Developers
- Designers

Hardware Requirements

Macbook running Mac OS X 10.11 and above
Windows laptop running Windows 10 or better

Course Objectives

- Develop modern front web apps
- Understand the fundamentals of React

Course Topics

Introducing ReactJSInstalling Xcode

- What is ReactJS
- Create a ReactJS project with CRA(Create React App)
- ReactJS project structure

Introducing JSX

- What is JSX
- Embedding Expressions in JSX
- Creating Attributes with JSX
- Specifying Children with JSX
- Preventing Injection Attacks

Rendering Elements

- Rendering an Element into the DOM
- Updating the Rendered Element

Components and Props

- Function and Class Components
- Rendering a Component
- Composing Components
- Extracting Components
- Adding Props

State and Lifecycle

- State in React
- Converting a Function to a Class
- Adding Lifecycle Methods to a Class
- Using State Correctly
- How Data Flows

Handling Events

- Click event
- Passing Arguments to Event Handlers

Conditional Rendering

- Conditional Rendering
- Element Variables
- Inline If with Logical && Operator
- Inline If-Else with Conditional Operator
- Preventing Component from Rendering

Lists and Keys

- Rendering Multiple Components
- Basic List Component
- Keys
- Extracting Components with Keys
- Embedding map() in JSX

Forms

- Controlled Components
- Working with Text Input(input, textarea)
- The select Tag
- Handling Multiple Inputs
- Controller Input Null Value

Lifting State Up

- Lifting State Up

Composition vs Inheritance

We'll overview the various persistence options: UserDefaults, the file system, SQLite, and Core Data.

- Containment
- Specialization
- Inheritance

Error Boundaries

- Introducing Error Boundaries
- Where to Place Error Boundaries
- Component Stack Traces

Fragments

- Motivation
- Using Fragments
- Fragments Short Syntax

High Order Components

- What is High Order Components
- HOCs for Cross-Cutting Concerns

Refs and DOM

- When to Use Refs
- Creating Refs
- Accessing Refs
- Exposing DOM Refs to Parent Components
- Callback Refs

Typechecking with PropTypes

- PropTypes
- Default Prop Values
- Checking array, string, bool, functions, objects and strings

Uncontrolled Components

- Default Values
- The file input Tag

Routing with React Router

- Installing and Setting Up React Router
- Basic Routing
- URL Parameters
- Redirects
- Custom Link
- Handling No Match with 404
- Query Parameters
- Redux Integration

Integrating Redux with React

- Actions
- Reducers
- Store
- Data Flow
- Integrating with React