



# LEARNING REACT

A Hands-On Guide to Building Web Applications Using React and Redux

SECOND EDITION



KIRUPA CHINNATHAMBI

# Learning React

---

Second Edition

# Learning React: A Hands-On Guide to Building Web Applications Using React and Redux

## Table of Contents

Cover

Half Title

Title Page

Copyright Page

Dedication

Contents

### 1 Introducing React

- Old-School Multipage Design

- New-School Single-Page Apps

- Meet React

  - Automatic UI State Management

  - Lightning-Fast DOM Manipulation

  - APIs to Create Truly Composable UIs

  - Visuals Defined Entirely in JavaScript

  - Just the V in an MVC Architecture

- Conclusion

### 2 Building Your First React App

- Dealing with JSX

- Getting Your React On

- Displaying Your Name

# **Table of Contents**

## **Its All Still Familiar**

Changing the Destination

Styling It Up!

Conclusion

## **3 Components in React**

Quick Review of Functions

Changing How We Deal with UI

Meet the React Component

Creating a Hello, World! Component

Specifying Properties

First Part: Updating the Component Definition

Second Part: Modifying the Component Call

Dealing with Children

Conclusion

## **4 Styling in React**

Displaying Some Vowels

Styling React Content Using CSS

Understand the Generated HTML

Just Style It Already!

Styling Content the React Way

Creating a Style Object

Actually Styling Our Content

Making the Background Color Customizable

Conclusion

## **5 Creating Complex Components**

From Visuals to Components

Identifying the Major Visual Elements

# Table of Contents

Identifying the Components

Creating the Components

The Card Component

The Square Component

The Label Component

Passing Properties, Again!

Why Component Composability Rocks

Conclusion

## 6 Transferring Properties

Problem Overview

Detailed Look at the Problem

Meet the Spread Operator

A Better Way to Transfer Properties

Conclusion

## 7 Meet JSXAgain!

What Happens with JSX?

JSX Quirks to Remember

Evaluating Expressions

Returning Multiple Elements

You Cant Specify CSS Inline

Comments

Capitalization, HTML Elements, and Components

Your JSX Can Be Anywhere

Conclusion

## 8 Dealing with State in React

Using State

# **Table of Contents**

Our Starting Point

Getting Our Counter On

Setting the Initial State Value

Starting Our Timer and Setting State

Rendering the State Change

Optional: The Full Code

Conclusion

## **9 Going from Data to UI in React**

The Example

Your JSX Can Be Anywhere, Part II

Dealing with Arrays

Conclusion

## **10 Events in React**

Listening and Reacting to Events

Starting Point

Making the Button Click Do Something

Event Properties

Meet Synthetic Events

Doing Stuff with Event Properties

More Eventing Shenanigans

You Can't Directly Listen to Events on Components

Listening to Regular DOM Events

The Meaning of this Inside the Event Handler

ReactWhy? Why?

Browser Compatibility

Improved Performance

Conclusion

# Table of Contents

## 11 The Component Lifecycle

### Meet the Lifecycle Methods

See the Lifecycle Methods in Action

The Initial Rendering Phase

Getting the Default Props

Getting the Default State

componentWillMount

render

componentDidMount

The Updating Phase

Dealing with State Changes

shouldComponentUpdate

componentWillUpdate

render

componentDidUpdate

Dealing with Prop Changes

The Unmounting Phase

### Conclusion

## 12 Accessing DOM Elements in React

The Colorizer Example

Meet Refs

Using Portals

Conclusion

## 13 Setting Up Your React Dev Environment Easily

Meet Create React

Making Sense of What Happened

Creating Our HelloWorld App

# **Table of Contents**

Creating a Production Build

Conclusion

## **14 Working with External Data in React**

Web Request 101

Its React Time!

Getting Started

Getting the IP Address

Kicking the Visuals Up a Notch

Conclusion

## **15 Building an Awesome Todo List App in React**

Getting Started

Creating the Initial UI

Building the Rest of the App

Adding Items

Displaying the Items

Styling our App

Removing Items

Animation! Animation! Animation!

Conclusion

## **16 Creating a Sliding Menu in React**

How the Sliding Menu Works

Setting Up the Sliding Menu

Getting Started

Showing and Hiding the Menu

Creating the Button

Creating the Menu

Conclusion



# **Table of Contents**

## **17 Avoiding Unnecessary Renders in React**

About the render Method

Optimizing render Calls

Getting an Example Going

Seeing the render Calls

Overriding a Component Update

Using PureComponent

Conclusion

## **18 Creating a Single-Page App in React Using React Router**

The Example

Getting Started

Building Our Single-Page App

Displaying the Initial Frame

Creating Our Content Pages

Using React Router

Its the Little Things

Fixing Our Routing

Adding Some CSS

Highlighting the Active Link

Conclusion

## **19 Introduction to Redux**

What Is Redux?

Building a Simple App Using Redux

Its Redux Time

Lights! Camera! Action!

Our Reducer

# **Table of Contents**

Store Stuff

Conclusion

## **20 Using Redux with React**

Managing React State with Redux

How Redux and React Overlap

Getting Started

Building the App

Conclusion

Index