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Book Revision

Revision 36 - Supports React 16.3.0 (2018-04-02)

Bug Reports

If you'd like to report any bugs, typos, or suggestions just email us at: react@fullstack.io[1].

For further help dealing with issues, refer to "How to Get the Most Out of This Book."

Chat With The Community!

There's an unofficial community chat room for this book using Gitter. If you'd like to hang out with other people learning React, come join us on Gitter[2]!

Be notified of updates via Twitter

If you'd like to be notified of updates to the book on Twitter, follow @fullstackio[3]

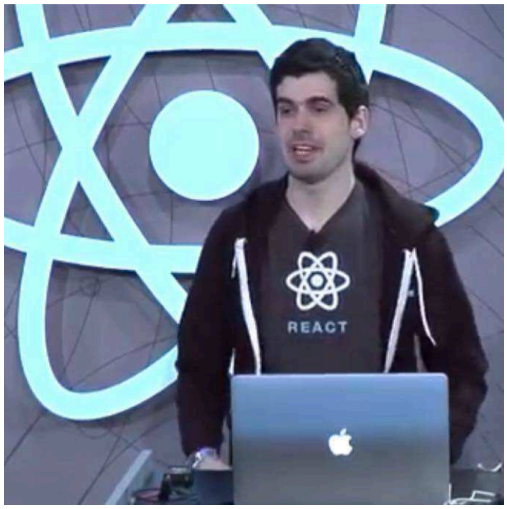
We'd love to hear from you!

Did you like the book? Did you find it helpful? We'd love to add your face to our list of testimonials on the website! Email us at: react@fullstack.io[4].

[1] mailto:react@fullstack.io?Subject=Fullstack%20React%20book%20feedback
[2] https://gitter.im/fullstackreact/fullstackreact
[3] https://twitter.com/fullstackio
[4] mailto:react@fullstack.io?Subject=react%20testimonial

Foreword

Web development is often seen as a crazy world where the way you develop software is by throwing hacks on top of hacks. I believe that React breaks from this pattern and instead has been designed from first principle which gives you a solid foundation to build on.



Christopher Chedeau - Front-end Engineer at Facebook

A major source of bugs for front-end applications was around synchronizing the data model with the DOM. It is very hard to make sure that whenever data changes, everything in the UI is updated with it.

React's first innovation was to introduce a pure-JavaScript representation of the DOM and implement diffing in userland and then use events which send simple commands: create, update, delete.

With React, by conceptually **re-rendering everything whenever anything changes**, not only do you have code that is **safe by default**, it is also **less work** as you only need to write the creation path: updates are taken care of for you.

Browsers have, for a long time, been incompatible in various ways due to the large API surface area of what they have to support to make the DOM work. Not only does React provide a great way to solve browser differences, but it enables use cases that were never before possible for a front-end library, such as server-side rendering and the ability to implement rendering targets like native iOS, Android, and even hardware components.

But the most important thing about React and the main reason why you should read this book: not only will you use it to **make great applications for your users**, it will also **make you a better developer**. Libraries come and go all the time and React is likely going to be no exception. What makes it special is that it teaches you **concepts that can be reused throughout your entire career**.

You will become better at JavaScript because React doesn't come with a templating system. Instead, React pushes you to use the **full power of JavaScript** to build your user interface.

You are going to practice using parts of *functional programming* with `map` and `filter` and also encouraged to use the **latest features of JavaScript** (including ES6). By not abstracting away data management, React will force you to think about how to architect your app and encourage you to consider concepts like immutability.

I'm very proud that the community built around React is not afraid of "rethinking best practices." The community challenges the status quo in many areas. My advice to you is to read this **excellent** book to learn and understand the fundamentals of React. Learning new concepts may feel strange but "give it 5 minutes" and practice them until you feel comfortable.

Then, **try to break the rules**. There is no one best way to build software and React is no exception. React actually embraces this fact by providing you with escape hatches when you want to do things outside of the React-way.

Come up with crazy ideas and who knows, maybe you are going to invent the successor to React!

– Christopher Chedeau @vjeux[5] Front-end Engineer at Facebook

[5] https://twitter.com/Vjeux