

Why Not React?



Cory House

@housecor | reactjsconsulting.com



Agenda



Why not React?

- JSX differs from HTML
- Build step
- Potential version conflicts
- Old features in searches
- Decision fatigue
- ~~License~~

React now uses a standard
MIT open source license. 





1

Concern

JSX Differs From HTML



JSX Compiles to JS

```
<h1 color="red">Heading here</h1>
```



```
React.createElement("h1", {color: "red"}, "Heading here")
```



HTML

for

class

<style color="blue">

<!-- Comment -->

JSX

htmlFor

className

<style={{color: 'blue'}}>

{*/ Comment /*}





But I have a lot of HTML to convert!



Convert HTML to JSX

Ctrl+F

find/replace

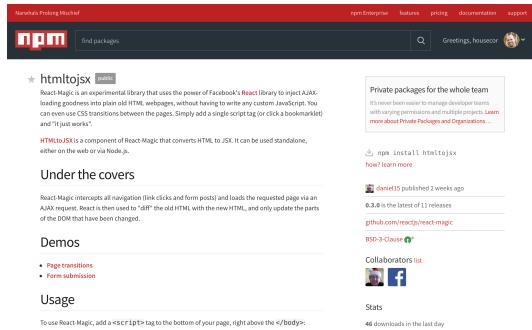
HTML to JSX Compiler



The screenshot shows a web-based application titled "HTML to JSX Compiler". It features a "Live HTML Editor" where users can type and edit HTML code. The code shown is:

```
<!-- HTML comment -->
<div class="awesome" style="border: 1px solid red">
  <label for="name">Enter your name: </label>
</div>
```

Online compiler



htmltojsx on npm



HTML to JSX Compiler

Create class

Live HTML Editor

```
<!-- HTML comment -->
<div class="awesome" style="border: 1px solid red">
  <label for="name">Enter your name: </label>
</div>
```

```
{/* HTML comment */
  <div className="awesome" style={{border: '1px solid red'}}>
    <label htmlFor="name">Enter your name: </label>
  </div>
```



find packages



Greetings, housecor



★ **htmltojsx** public

React-Magic is an experimental library that uses the power of Facebook's **React** library to inject AJAX-loading goodness into plain old HTML webpages, without having to write any custom JavaScript. You can even use CSS transitions between the pages. Simply add a single script tag (or click a bookmarklet) and "it just works".

HTMLtoJSX is a component of React-Magic that converts HTML to JSX. It can be used standalone, either on the web or via Node.js.

Under the covers

React-Magic intercepts all navigation (link clicks and form posts) and loads the requested page via an AJAX request. React is then used to "diff" the old HTML with the new HTML, and only update the parts of the DOM that have been changed.

Demos

- [Page transitions](#)
- [Form submission](#)

Usage

Private packages for the whole team

It's never been easier to manage developer teams with varying permissions and multiple projects. [Learn more about Private Packages and Organizations...](#)

[npm install htmltojsx](#)

[how?](#) [learn more](#)

[daniel15](#) published 2 weeks ago

0.3.0 is the latest of 11 releases

[github.com/reactjs/react-magic](#)

[BSD-3-Clause](#)

Collaborators [list](#)





2

Concern
Build Step Required



JSX Compiles to JS

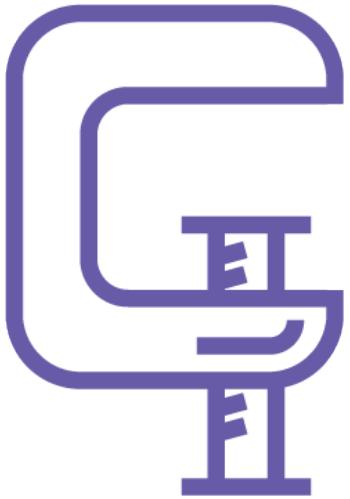
```
<h1 color="red">Heading here</h1>
```



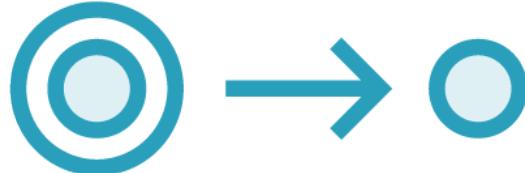
```
React.createElement("h1", {color: "red"}, "Heading here")
```



Modern Web Apps: Build Step Required



Minify



Transpile



Test and lint



Popular Transpilers Compile JSX

BABEL

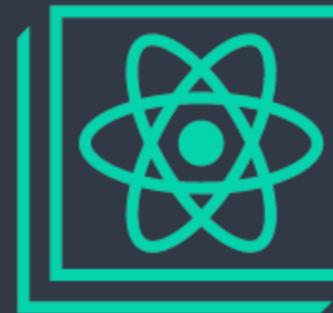


Babel

Both transpile JSX

TypeScript





Create React App

Set up a modern web app by running one command.

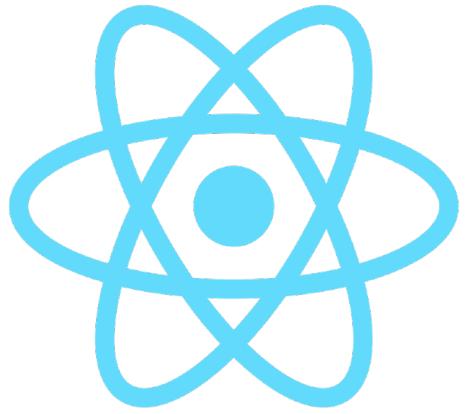
[Get Started](#)



3

Concern
Version Conflicts





**Runtime = Potential
version conflicts**



No runtime

svelte



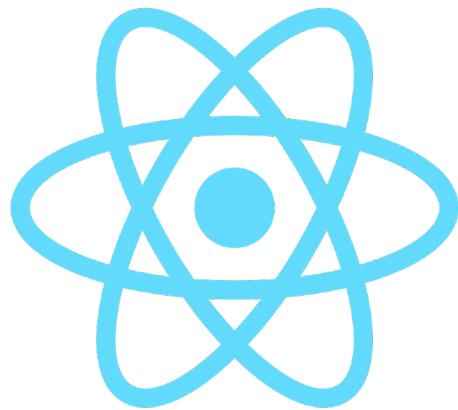
STENCIL

Skate

Built-in runtime



Version Compatibility



React



React Router



Requires recent React version





This repository

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Pull requests Issues Marketplace Explore



reactjs / react-codemod

Watch ▾

39

Unstar

1,163

Fork

120

Code

Issues 14

Pull requests 8

Projects 0

Wiki

Insights ▾

React codemod scripts

197 commits

1 branch

0 releases

33 contributors

BSD-3-Clause

Branch: master ▾

New pull request

Create new file

Upload files

Find file

Clone or download ▾



bvaughn committed on GitHub Merge pull request #154 from Realeative/patch-1 ...

Latest commit d8a1d47 on Jul 28

| | | |
|--------------------------------|--|-------------|
| jest | upgraded jest (#77) | a year ago |
| transforms | Merge pull request #152 from AugustinLF/prop-types-retain-leading-com... | a month ago |
| .babelrc | Make the tests run fast. | 2 years ago |
| .eslintignore | Add eslint. | 2 years ago |
| .eslintrc.js | Class transform with property initializer (#54) | a year ago |
| .gitattributes | Import code from the React repo | 2 years ago |
| .gitignore | Add eslint. | 2 years ago |
| .travis.yml | Add travis. | 2 years ago |
| LICENSE | add license, patents | 2 years ago |
| PATENTS | add license, patents | 2 years ago |
| README.md | README formatting tweak | a month ago |



Avoid Conflicts

Standardize on a version

Upgrade React when upgrading libraries

Upgrade as a team





4

Concern
Old Stuff Online



All

Images

Videos

News

Shopping

More

Settings

Tools

About 324,000,000 results (0.89 seconds)

[https://reactjs.org › docs › hello-world ▾](https://reactjs.org/docs/hello-world)

Hello World – React

The smallest **React example** looks like this: ReactDOM.render(<h1>Hello, world!</h1>, document.getElementById('root'));. It displays a heading saying “Hello, ...

[https://reactjs.org › community › examples ▾](https://reactjs.org/community/examples)

Example Projects – React

Example Projects. Zeldog A Zelda like game with a dog fighting ducks and more to eat pizza ! Calculator Implementation of the iOS calculator built in **React**. Emoji Search Simple **React** app for searching emoji. **React** Powered Hacker News Client A **React** & **react-router** -powered implementation of Hacker News using its ...

[https://reactjs.org › tutorial › tutorial ▾](https://reactjs.org/tutorial)



Home

PUBLIC

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Tags

Users

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TEAMS

What's this?

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Tags

A tag is a keyword or label that categorizes your question with other, similar questions. Using the right tags makes it easier for others to find and answer your question.

[Show all tag synonyms](#)

react

[Popular](#) [Name](#) [New](#)[reactjs](#)[Edit](#)

React (also known as React.js or ReactJS) is a JavaScript library developed by Facebook for building user interfaces. It uses a declarative,...

189159 questions 303 asked today, 1776 this week

[react-native](#)[Edit](#)

React Native lets you build native mobile apps using React. The focus of React Native is on developer efficiency across all the platforms you care abo...

68447 questions 124 asked today, 616 this week

[react-redux](#)[Edit](#)

Official React bindings for Redux

13434 questions 19 asked today, 79 this week

[react-router](#)[Edit](#)

React Router - A complete routing library for React inspired by Ember's routing system

11751 questions 11 asked today, 54 this week

[azure-active-directory](#)[Edit](#)

Microsoft Azure Active Directory (Microsoft Azure AD) is a modern developer platform and IAM service that provides identity management a...

8719 questions 14 asked today, 66 this week

[react-native-android](#)[Edit](#)

React-native-android: refers everything related to react-native Android development. Component, Styling, Routing and Native API access in...

5217 questions 14 asked today, 60 this week

[react-navigation](#)[Edit](#)

An easy-to-use navigation solution to be used across React and React Native projects

4559 questions 10 asked today, 53 this week

[react-hooks](#)[Edit](#)

a new feature that allows developers to use state(s) and other React features without writing a class.

4453 questions 25 asked today, 141 this week

[reactive-programming](#)[Edit](#)

a programming paradigm oriented around the use of functional programming concepts like immutability and non-blocking computation

[system.reactive](#)[Edit](#)

System.Reactive refers to the Reactive Extensions for .NET, Java, C++, Python, and F#

[create-react-app](#)[Edit](#)

a starter-kit for creating React apps using Create React App

[angular-reactive-forms](#)[Edit](#)

Questions about Angular Reactive Forms, which is a reactive form builder for Angular

[Write a story](#)

2.9K



TAGGED IN

React

[JavaScript](#) > [React](#)[Following](#)

Related tags

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Sep 25 · 11 min read

What's New With Server-Side Rendering in React 16

A quick introduction to the new features in React 16 SSR, including arrays, performance, streaming, and more.

[Read more...](#)

5K

13 responses

[Jay Garcia](#)

Sep 25 · 15 min read

new features or things which have been added and hopefully receive feedback from you on what you want to see implemented in the next build.

¹ The first decision was what type of approach to use for the internals of the grid. I've used a lot of grid and table implementations over my career and most have had a similar approach of separating logic and core UI from the data. One implementation I am intimately familiar with is the Swing JTable. It goes beyond the separation of core UI from data and also separates the logic for selections and cell rendering/editing. With that knowledge in hand, I decided to start by

Many resources? Great! 

But there's a risk...



Some content is outdated.



Features Extracted From React Core

Old

```
import {render} from 'react';
```

```
React.createClass
```

```
import {PropTypes} from 'react';
```

```
mixins: [mixinNameHere]
```

New

```
import {render} from 'react-dom';
```

```
var crc = require('create-react-class');
```

```
import PropTypes from 'prop-types';
```

Hooks



React

A JavaScript library for building user interfaces

[Get Started](#)[Take the Tutorial >](#)

Declarative

React makes it painless to create interactive UIs. Design simple views for each state in your application, and React will efficiently update

Component-Based

Build encapsulated components that manage their own state, then compose them to make complex UIs.

Learn Once, Write Anywhere

We don't make assumptions about the rest of your technology stack, so you can develop new features in React without rewriting existing



5

Concern
Decision Fatigue



Many Options



#greatproblem



Dev environment

Classes or functions

Types

State

Styling





Decision 1

Dev Environment



filter projects

TAGS

AGE

198 Projects

Sort ▾

 create-react-app

Create React apps with no build configuration.

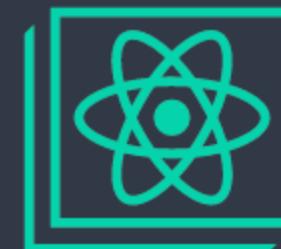
74,942 1d [dependency](#) [linter](#) [minimal](#) next.js

Next.js is a lightweight framework for static and server-rendered applications.

43,702 5h [dependency](#) [babel](#) [hmr](#) [linter](#) [tests](#) [webpack 3](#) gatsby Blazing fast static site generator for React41,127 59min [dependency](#) [css modules](#) [babel](#) [redux](#) [hmr](#) [linter](#) [router](#) [tests](#) [webpack 4](#) react-boilerplate

:fire: A highly scalable, offline-first foundation with the best developer experience and a focus on performance and best

24,298 



Create React App

Set up a modern web app by running one command.

[Get Started](#)

Less to Learn

You don't need to learn and configure many build tools. Instant reloads help you focus on development. When it's time to deploy, your bundles are optimized automatically.

Only One Dependency

Your app only needs one build dependency. We test Create React App to make sure that all of its underlying pieces work together seamlessly – no complicated version mismatches.

No Lock-In

Under the hood, we use webpack, Babel, ESLint, and other amazing projects to power your app. If you ever want an advanced configuration, you can "eject" from Create

Decision Dev environment

Recommendation
**create-react-app or
create-react-native-app**



Cory House 

@housecor

 Poll: What boilerplate do you typically use for React development today?

65% `create-react-app`

4% fork of `create-react-app`

6% open source boilerplate

25% home made boilerplate

2,250 votes • Final results

7:38 AM - 28 Sep 2017



Related Libraries



React Router



Redux





Decision 2

Class or Function components



Class

```
class Greeting extends React.Component {  
  render() {  
    return <h1>Hello</h1>;  
  }  
}
```

Function

```
function Greeting() {  
  return <h1>Hello</h1>;  
}
```



Decision Class vs function

The screenshot shows a course page for "Building Applications with React and Flux" by Cory House. The page includes a course thumbnail, title, author, description, and a preview video. Below the video, there are buttons for "Resume Course", "Bookmark", "Add to Channel", and "Download Course". A "Table of contents" section is visible at the bottom.

Recommendation Function

The screenshot shows a course page for "Building Applications with React and Redux" by Cory House. The layout is identical to the first screenshot, featuring a course thumbnail, title, author, description, and a preview video. It includes the same set of buttons ("Resume Course", "Bookmark", etc.) and a "Table of contents" section at the bottom.





Decision 3

PropTypes, TypeScript, or Flow



```
import React from "react";
import PropTypes from 'prop-types';

function Greeting(props) {
  return (
    <h1>Hello {props.name}</h1>
  )
}

Greeting.propTypes = {  
  name: PropTypes.string  
};
```

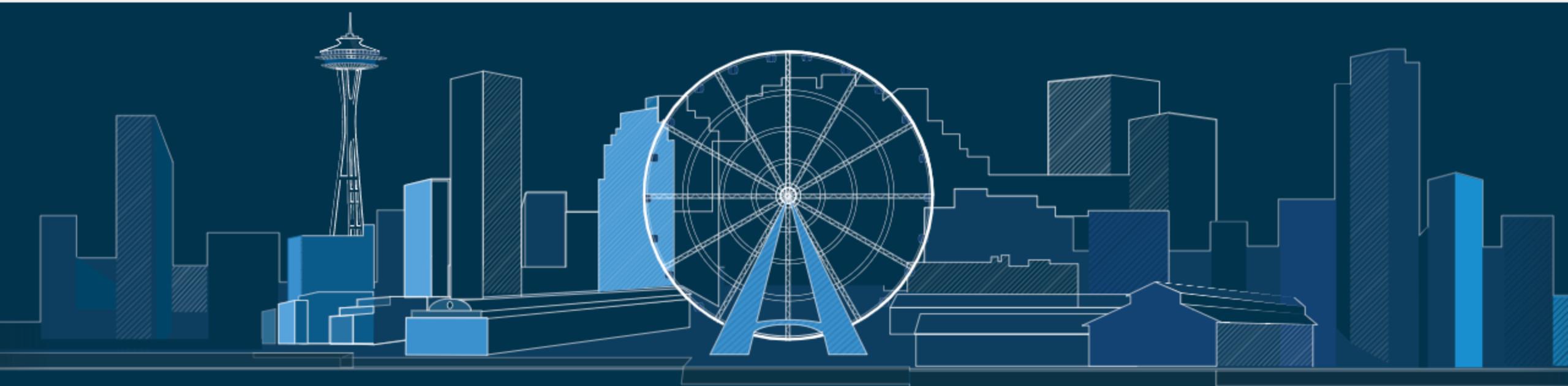
Type checked at runtime



TypeScript 3.7 is now available. [Get the latest version today!](#)

 This site uses cookies for analytics, personalized content and ads. By continuing to browse this site, you agree to this use.

[Learn more](#)



TypeScript

JavaScript that scales.

TypeScript is a typed superset of JavaScript that compiles to plain JavaScript.

```
import * as React from "react";

interface Props {
    name: string
}

function Greeting(props : Props) {
    return (
        <h1>Hello {props.name}</h1>
    )
}
```

Type checked
at compile





flow

Getting Started Docs Try Blog



FLOW IS A STATIC TYPE CHECKER FOR JAVASCRIPT.

[GET STARTED](#)

[INSTALL FLOW](#)

Star 20,427

Current Version: [v0.118.0](#)

CODE FASTER.



```
// @flow
import React from "react";

type Props = {
    name: string
};

function Greeting(props: Props) {
    return (
        <h1>Hello {props.name}</h1>
    )
}
```

Type checked
when you run
flow



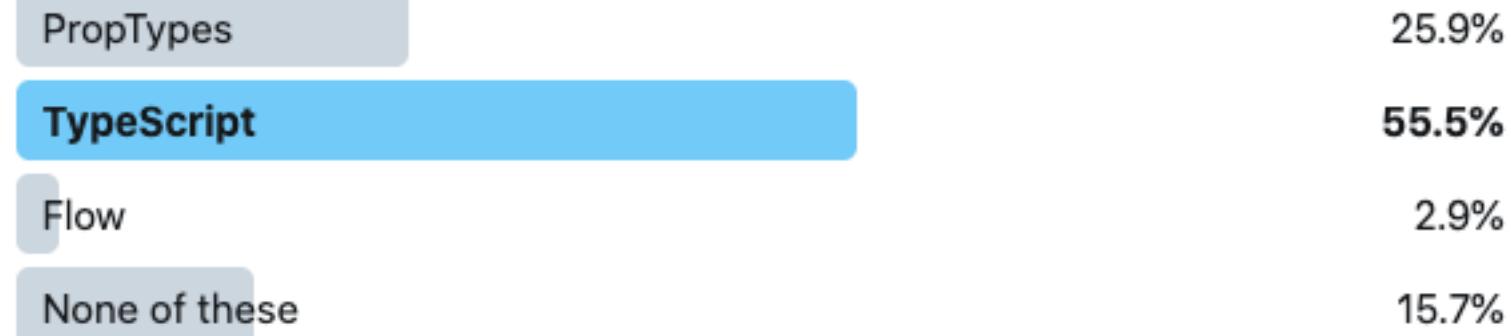
Decision PropTypes, TypeScript, or Flow



Cory House
@housecor

 Poll: How are you handling types in your React apps today?

#react #reactjs



769 votes · Final results

Recommendation PropTypes or TypeScript





Decision 4

State Management

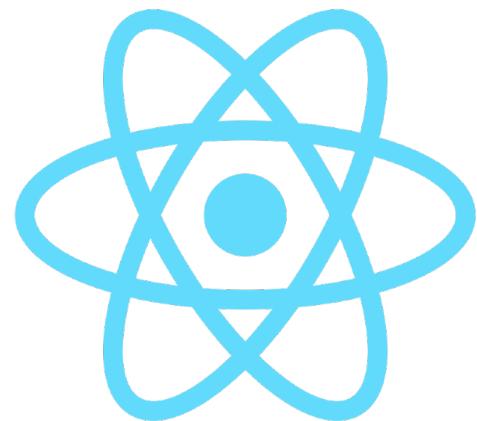




State: Your App's Data



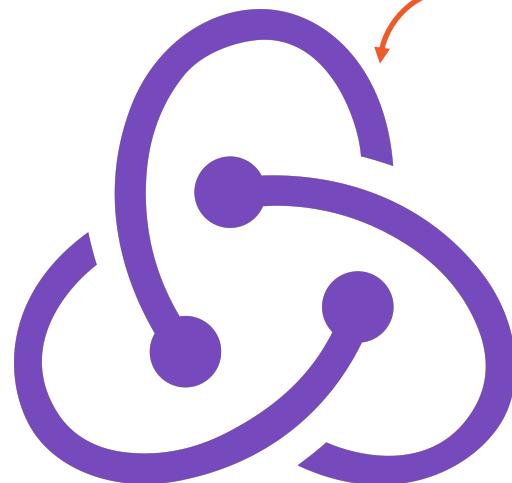
State Management



Plain React
Component state



Flux
Centralized state



Redux
Centralized state



MobX
Observable State

Popular Flux alternative

Optional



React works great alone.



Decision

Plain React, Redux, MobX

Recommendation

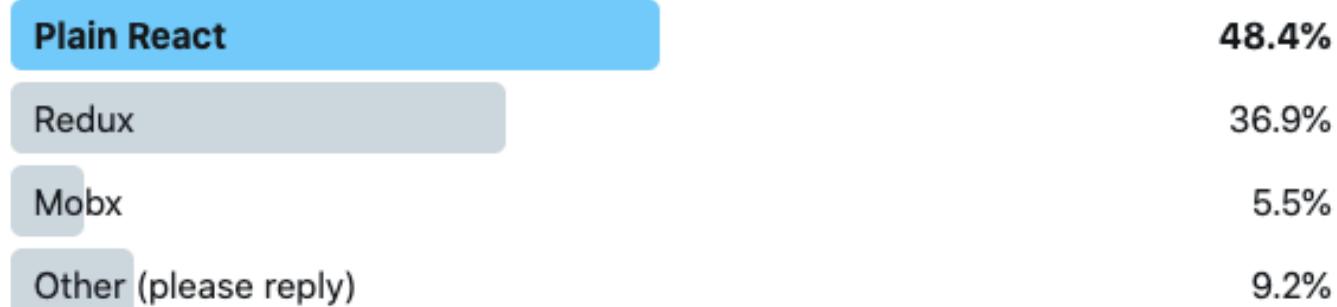
Plain React



Cory House
@housecor

📊 Poll: How are you handling React state today?

#react #reactjs



6,102 votes · Final results





Decision 5 Styling



Decision Styling

Recommendation What you already know



Cory House 

@housecor



How are you styling your @reactjs applications? Reply with specific libraries.

#reactjs

58% Plain CSS, Sass, Less...

22% CSS Modules

5% Inline (Plain, Radium...)

15% CSS-in-JS (JSS, Aphro...)

225 votes • Final results



Decision

Dev environment

Classes or Functions

Types

State

Styling

Recommendation

create-react-app

Functions

PropTypes

Plain React

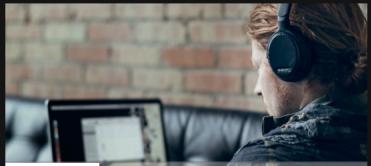
What you already know



LIBRARY

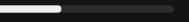
 Home Browse Feed Paths Mentors Channels Bookmarks Notes

AUTHOR TOOLS

 Dashboard Analytics Author's Nest Author kit Be a mentor**React.js: Getting Started**Samer Buna
Beginner · 1h 43m · June 12, 2015**React Fundamentals**Liam McLennan
Intermediate · 2h 44m · Mar 19, 2014

^ Intermediate

Watched 7 hours of 16

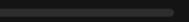
 46% Measure Improvement

These intermediate courses will take you through some of the more intricate elements within React, including working with Flux and Redux. Once you fully comprehend the topics in this area, you'll be ready to move to the advanced section.

**Building Applications with React and Flux**Cory House
Intermediate · 5h 8m · Aug 12, 2015**Building Applications with React and Redux in ES6**Cory House
Intermediate · 6h 14m · May 20, 2016**Building Scalable React Apps**Hendrik Swanepoel
Intermediate · 3h 48m · Oct 27, 2016**Styling React Components**Jake Trent
Intermediate · 1h 29m · Jan 4, 2016

^ Advanced

Watched 0 hours of 9

 1% Measure Improvement

In this section, you'll explore more advanced topics like the context API, HOCs, external state, performance optimization, production deployment, testing and building a full-stack app using React.

**Advanced React.js**Samer Buna
Advanced · 3h 54m · July 21, 2017**Mastering React Testing with Jest**Daniel Stern
Intermediate · 1h 59m · Mar 3, 2016**Building a Full-Stack App with React and Express**Daniel Stern
Advanced · 3h 24m · Aug 17, 2015

Summary



JSX differs from HTML

- Easy to convert

Build step is typically required

- You need a build step anyway

Potential version conflicts

- Easy to upgrade via codemods

Old features in searches

- Note features extracted from core

Decision fatigue

- Start simple
- Add complexity as needed



Creating Reusable React Components

by Cory House

Intermediate

6h 21m

05 June 2017

★ ★ ★ ★ ★ (47)

Building a JavaScript Development Environment

by Cory House

Beginner

5h 19m

10 November 2016

★ ★ ★ ★ ★ (351)

Building Applications with React and Redux in ES6

by Cory House

Intermediate

6h 14m

20 May 2016

★ ★ ★ ★ ★ (884)

Building Applications with React and Flux

by Cory House

Intermediate

5h 8m

12 August 2015

★ ★ ★ ★ ★ (1093)

Thanks for watching!

HTML5 Web Component Fundamentals

by Cory House

Beginner

5h 3m

09 January 2015

★ ★ ★ ★ ★ (400)

Becoming an Outlier: Reprogramming the Developer Mind

by Cory House

Intermediate

2h 33m

24 April 2014

★ ★ ★ ★ ★ (765)

Architecting Applications for the Real World in .NET

by Cory House

Intermediate

2h 52m

07 January 2014

★ ★ ★ ★ ★ (1583)

Clean Code: Writing Code for Humans

by Cory House

Intermediate

3h 10m

07 October 2013

★ ★ ★ ★ ★ (1683)

