

Development Environment



Cory House

@housecor | reactjsconsulting.com



The Plan



Key decisions

- Library or standalone?
- Boilerplate, doc lib, or custom?

Install essentials

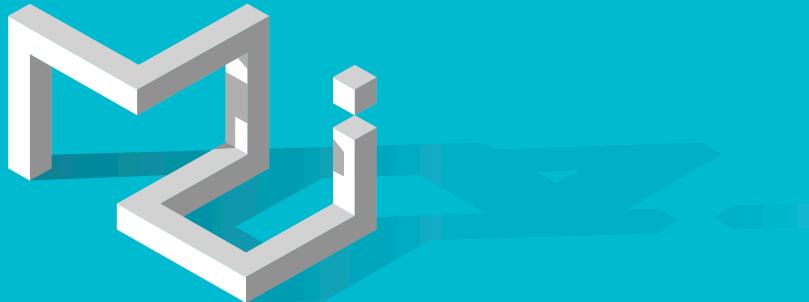
- Node.js
- Git

Create our project



Decision: Library or standalone?



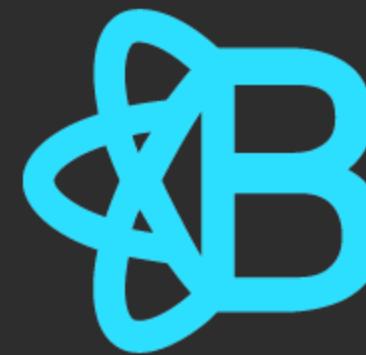


Material-UI

A Set of React Components that Implement
Google's Material Design

DEMO

Material-UI came about from our love of [React](#) and [Google's Material Design](#).
We're currently using it on a project at [Call-Em-All](#) and plan on adding to it and

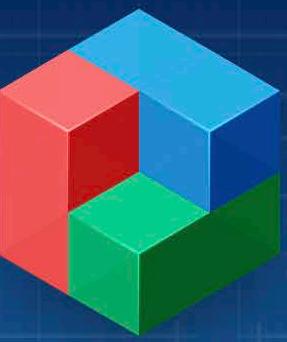


The most popular front-end framework, rebuilt for React.

- 🔊 We are actively working to reach a 1.0.0 release, and we would love your help to get there.
- ☑ Check out the [1.0.0 roadmap](#) and [contributing guidelines](#) to see where you can help out.
- 👉 A great place to start is any [issue](#) with a [help-wanted](#) label.
- ✓ We are open to pull requests that address bugs, improve documentation, enhance accessibility, add test coverage, or bring us closer to feature parity with [Bootstrap](#).
- 👤 We actively seek to invite frequent pull request authors to join the organization. ↗

⚠ The project is under active development, and APIs will change.

🔊 Prior to the 1.0.0 release, breaking changes should result in a minor version bump.



Blueprint

A React UI toolkit for the web

[DOCS](#) • [GITHUB](#)

Build complex, data-dense

Input

Default

Primary

Success

Warning

Dan

Placeholder

Left

Middle

Right

Left

Middle

Right

react-dates

v7.0.1

build passing

dependencies up to date

devDependencies up to date

license MIT

downloads 59k/month



npm install react-dates

5 dependencies version 7.0.1
8 dependents updated 21 days ago
57,023 downloads in the last month

An easily internationalizable, mobile-friendly datepicker library for the web.

The screenshot displays a datepicker interface with two calendar grids. The left grid represents November 2016, and the right grid represents December 2016. The current date, 11/17/2016, is highlighted in a teal box with an arrow pointing to the text "End Date".

November 2016

Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
				4	5	
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

December 2016

Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4		5	6	7	8	9
				10		
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31



Griddle is an ultra customizabledatagrid component for React.

Filter							1	Next
id	name	city	state	country	company	favoriteNumber		
0	Mayer Leonard	Kapowsin	Hawaii	United Kingdom	Ovolo	7		
1	Koch Becker	Johnsonburg	New Jersey	Madagascar	Eventage	2		
2	Lowery Hopkins	Blanco	Arizona	Ukraine	Comtext	3		
3	Walters Mays	Glendale	Illinois	New Zealand	Corporana	6		
4	Shaw Lowe	Coulterville	Wyoming	Ecuador	Isologica	2		

Reimagined with customization in mind

The new Griddle 1.0 has been re-built with customization in mind. It ships with some basic conventions and functionality but gives you the ability to customize just about anything (components, methods, etc). To encourage customization reuse, Griddle now has plugin support!

Plugins

Plugins are packaged Griddle customizations that can be reused or shared. Want to group styles and behavior that are shared throughout your organization or have some great idea you want to share with the world through npm? Plugins are the way to achieve this!

What's new

1. [New module architecture](#)
2. [First class plugin support](#)
3. [Customize just about anything](#)

Griddle is not just a data grid

React DnD is a set of React [higher-order](#) components to help you build complex drag and drop interfaces while keeping your components decoupled. It is a perfect fit for apps like Trello and Storify, where dragging transfers data between different parts of the application, and the components change their appearance and the application state in response to the drag and drop events.

Installation

```
npm install --save react-dnd
npm install --save react-dnd-html5-backend
```

The second package instructs React DnD to use the [HTML5 drag and drop API](#) under the hood. You may choose to use a third-party backend instead, such as [the touch backend](#).

What's It Look Like?

[ES7](#) [ES6](#) [ES5](#)

```
// Let's make <Card text='Write the docs' /> draggable!
```

```
import React, { PropTypes } from 'react';
import { DragSource } from 'react-dnd';
```

Library	Standalone
Consistent look and feel	
Easier to add a new component	Easier to build
Simpler organization	Easier to adopt
Quickly add components	Low commitment
Simpler dependency management	Mix and match
Automatic discovery	Flexibility
Less marketing overhead	Less version churn
Easier integration testing	
People can still use only what they want	



You can manage multiple packages from a single repo





Lerna

A tool for managing JavaScript projects with multiple packages.



[Follow Lerna on Twitter](#)

About

Splitting up large codebases into separate independently versioned packages is extremely useful for code sharing. However, making changes across many repositories is *messy* and difficult to track, and testing across repositories gets complicated really fast.

To solve these (and many other) problems, some projects will organize their codebases into multi-package repositories. Projects like Babel,

LICENSE	Update LICENSE (#5058)	22 days ago
Makefile	Internal: Run coverage only once (#5182)	6 days ago
NPM OWNERS	Misc: update npm owners [skip ci]	6 months ago
README.md	Increase cache timeout to 12h for top badges	10 days ago
circle.yml	circle.yml: use later version of 0.10	5 months ago
lerna.json	v6.22.2	7 days ago
package.json	Internal: only build once on CI (#5177)	7 days ago

README.md



The compiler for writing next generation JavaScript.

[travis](#) passing [circle](#) passing [coverage](#) 89% [slack](#) 132/5415 [downloads](#) 5M/month

Babel is a community-driven tool that helps you write the latest version of JavaScript.

When your supported environments don't support certain features natively, it will help you compile it down to a supported version.

In

```
// ES2015 arrow function
[1,2,3].map(n => n + 1);
```

Out

[This repository](#)[Search](#)[Pull requests](#) [Issues](#) [Gist](#)[facebookincubator / create-react-app](#)[Watch](#) [640](#)[Unstar](#) [19,405](#)[Fork](#) [2,139](#)[Code](#)[Issues 176](#)[Pull requests 67](#)[Projects 2](#)[Wiki](#)[Pulse](#)[Graphs](#)Branch: [master](#) ▾[create-react-app / packages /](#)[Create new file](#)[Upload files](#)[Find file](#)[History](#)

 frehner committed with gaearon	Readme: Removes experimental from Jest snapshot (#1453)	...	Latest commit dd788b6 21 hours ago
..			
 babel-preset-react-app	Publish		2 months ago
 create-react-app	Use a more sophisticated template for end-to-end testing. (#1187)		4 days ago
 eslint-config-react-app	Publish		2 months ago
 react-dev-utils	webpack-dev-server patch for 'still-ok' success status (#1377)		15 days ago
 react-scripts	Readme: Removes experimental from Jest snapshot (#1453)		21 hours ago



In this course:

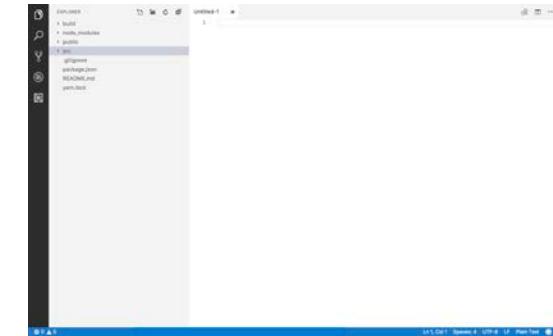
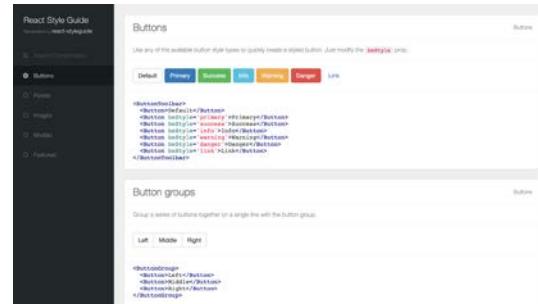
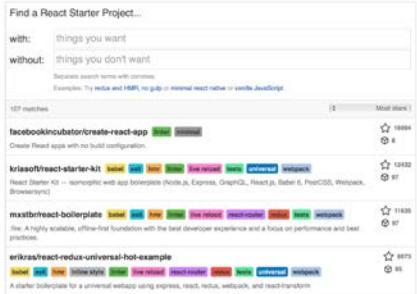
1. We'll build a component library
2. We'll use a single GitHub repository



Decision:
Boilerplate, doc library,
or build your own?



Dev Environment Options



Boilerplate

Doc tool

Build Your Own



Dev Environment Options

Option 1:
Boilerplate

Over 100 to choose from!?



Find a React Starter Project...

with: things you want

without: things you don't want

Separate search terms with commas.

Examples: Try redux and HMR, no gulp or minimal react native or vanilla JavaScript.

107 matches

Most stars

facebookincubator/create-react-app linter minimal

18994

8

Create React apps with no build configuration.

kriasoft/react-starter-kit babel es6 hmr linter live reload tests universal webpack

12432

97

React Starter Kit — isomorphic web app boilerplate (Node.js, Express, GraphQL, React.js, Babel 6, PostCSS, Webpack, Browsersync)

mxstbr/react-boilerplate babel es6 hmr linter live reload react-router redux tests webpack

11635

97

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

erikras/react-redux-universal-hot-example

8673

95

babel es6 hmr inline style linter live reload react-router redux tests universal webpack

A starter boilerplate for a universal webapp using express, react, redux, webpack, and react-transform

davezuko/react-redux-starter-kit babel es6 hmr linter live reload react-router redux tests webpack

7549

65

Get started with React, Redux, and React-Router!

coryhouse/react-slingshot babel es6 hmr linter live reload react-router redux tests webpack

5679

60

React + Redux starter kit / boilerplate with Babel, hot reloading, testing, linting and a working example app, all built in

este/este babel es6 hmr linter live reload react native react-router redux tests universal webpack

4330

104

Starter kit for universal full-fledged React apps. One stack for browser, mobile, server.

gaearon/react-hot-boilerplate babel es6 hmr linter live reload minimal webpack

3382

13

Minimal live-editing example for React



This repository

Search

Pull requests Issues Gist

facebookincubator / **create-react-app**

Watch ▾

763

Unstar

24,204

Fork

3,120

Code

Issues 162

Pull requests 71

Projects 2

Wiki

Pulse

Graphs

Create React apps with no build configuration.

react

zero-configuration

build-tools

843 commits

4 branches

75 releases

254 contributors

BSD-3-Clause

Branch: master ▾

New pull request

Create new file

Upload files

Find file

Clone or download ▾



tmos committed with Timer Suggest Yarn in HTML template (#1911) ...

Latest commit c83ee7a 3 days ago

packages

Suggest Yarn in HTML template (#1911)

3 days ago

tasks

Test for accidental extraneous dependencies (#1825)

16 days ago

template

Add note for using CHOKIDAR_USEPOLLING in virtual machines to enable ...

2 months ago

.eslintignore

Fix internal linting setup and add missing headers (#1741)

a month ago

.eslintrc

Lint internal scripts with eslint:recommended (#1729)

a month ago

.gitignore

NPM version check for tip (#1193)

a month ago

.travis.yml

Run CI on Node 7; Bump detect-port: 1.0.1 -> 1.1.0 (#1776) (#1783)

a month ago

CHANGELOG.md

Add 0.9.5 changelog (#1784)

a month ago

CONTRIBUTING.md

Add note for using CHOKIDAR_USEPOLLING in virtual machines to enable ...

2 months ago

ISSUE_TEMPLATE.md

Point people to npm Windows instructions

6 months ago

Why create-react-app?

Advantages	Disadvantages
Most popular	Must eject for full configurability
Supported by Facebook	Eject = Manual upgrades
Bundles popular tech	Strong opinions:
Well tested	<ul style="list-style-type: none">- Babel over TypeScript- Webpack over Rollup, Browserify- Jest over Mocha, Jasmine, etc.
Easily upgradable	
Eject for full configurability	





This repository

Search

Pull requests Issues Gist



insin / nwb

Watch ▾

55

Star

2,008

Fork

96

Code

Issues 97

Pull requests 9

Projects 1

Pulse

Graphs

A toolkit for React, Preact & Inferno apps, React libraries and other npm modules for the web, with no configuration (until you need it)

toolkit

react

preact

inferno

react-component

npm-module

webpack

babel

karma

javascript

752 commits

5 branches

59 releases

15 contributors

Branch: master ▾

New pull request

Create new file

Upload files

Find file

Clone or download ▾



loklaan committed on GitHub Merge pull request #283 from totaldis/patch-1 ...

Latest commit a2a7868 24 days ago

.github	Update CONTRIBUTING.md	2 months ago
babel-presets	Add Inferno and Preact app types for development, instead of develop...	4 months ago
docs	Add "How can I view the configuration nwb generates?" to the FAQ	2 months ago
resources	Move some more stuff to resources/	11 months ago
src	Add process.exit on cli callback	2 months ago
tasks	Remove unused global declaration from release script	4 months ago
templates	replacing mistyped 'npm' with 'nwb'	24 days ago
tests	Ignore deprecation warning logging in server tests	a month ago
.editorconfig	Add an .editorconfig file	2 months ago

Why nwb?

Advantages	Disadvantages
Component library focused	Oriented toward a single component
Testing with Mocha and Karma	Strong opinions:
Transpiles to ES5	<ul style="list-style-type: none">- Babel over TypeScript
Can leave ES imports for tree shaking	<ul style="list-style-type: none">- Webpack over Rollup, Browserify
Optional UMD build	<ul style="list-style-type: none">- Mocha + Karma over Jest



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with: things you want

without: things you don't want

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gaearon/react-hot-boilerplate babel es6 hmr linter live reload minimal webpack

3382

13

Minimal live-editing example for React

Dev Environment Options

Option 2: Doc Tool

- React Storybook**
- React Styleguide**
- React Styleguidist**
- Atellier**
- Bluekit**
- Cosmos**



Filter

X

Header**default view**

Footer

Todoltem

MainSection

todos

What needs to be done?

ACTION LOGGER CLEAR

Filter by name

Button

Modal

Placeholder

PushButton

RandomButton

WrappedButton

Button

lib/components/Button/Button.js

The only true button.

Props

Name	Type	Default	Description
children	string	Required	Button label.
color	string	#333	
size	enum	normal	One of: small, normal, large

Basic button:

Push Me

Show code

Big pink button:

Lick Me

Show code

And you can use any [Markdown](#) here.

If you define a fenced code block with a language flag it will be rendered as a regular Markdown code snippet:

Search Components

Buttons

Panels

Images

Modals

Features!

Buttons

Buttons

Use any of the available button style types to quickly create a styled button. Just modify the `bsStyle` prop.

Default

Primary

Success

Info

Warning

Danger

Link

```
<ButtonToolbar>
  <Button>Default</Button>
  <Button bsStyle='primary'>Primary</Button>
  <Button bsStyle='success'>Success</Button>
  <Button bsStyle='info'>Info</Button>
  <Button bsStyle='warning'>Warning</Button>
  <Button bsStyle='danger'>Danger</Button>
  <Button bsStyle='link'>Link</Button>
</ButtonToolbar>
```

Button groups

Buttons

Group a series of buttons together on a single line with the button group.

Left

Middle

Right



Q Search components

AppBar

Avatar

Badge

Checkbox

CircularProgress

EnhancedButton

FlatButton

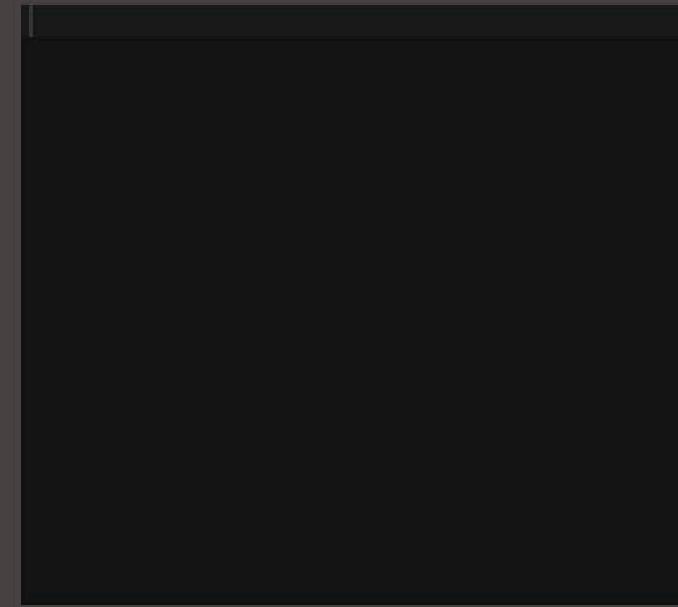
FloatingActionButton

FontIcon

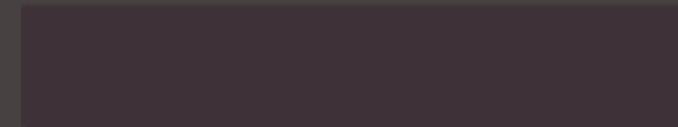
AppBar



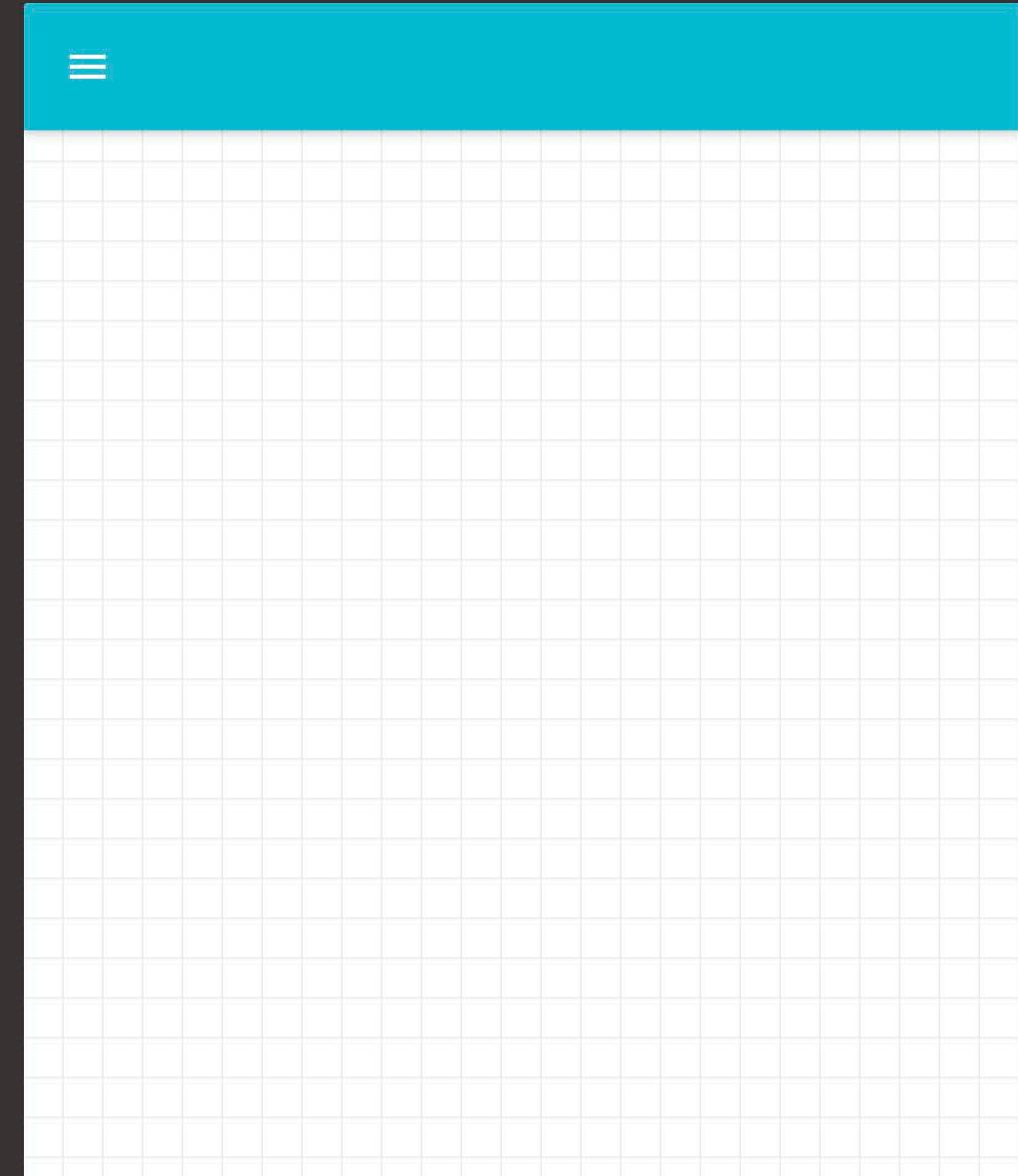
style



children



className



Search for components



All components

Components

Preview

Button

Checkbox

ErrorMessage

Heading

Icon

Loader

Logo

MultiField

PasswordField

Spinner

TextField

Button



Preview



Background

children*

any

ANY children

className

string

Default value

disabled



bool

fullWidth



bool

inheritedStyle

object

1

kind

enum

primary

loading



bool

loadingText

string

Default value

Preview

ANY children

</> Show source code



Prop variant: className

ANY children

<Button className="" />



ANY children



Search...

FlatrisGame

hallelujah

mission-impossible

new-game-running

new-game

GamePanel

on-paused-game

on-playing-game

on-stopped-game

InfoPanel

static-panel

SquareBlock

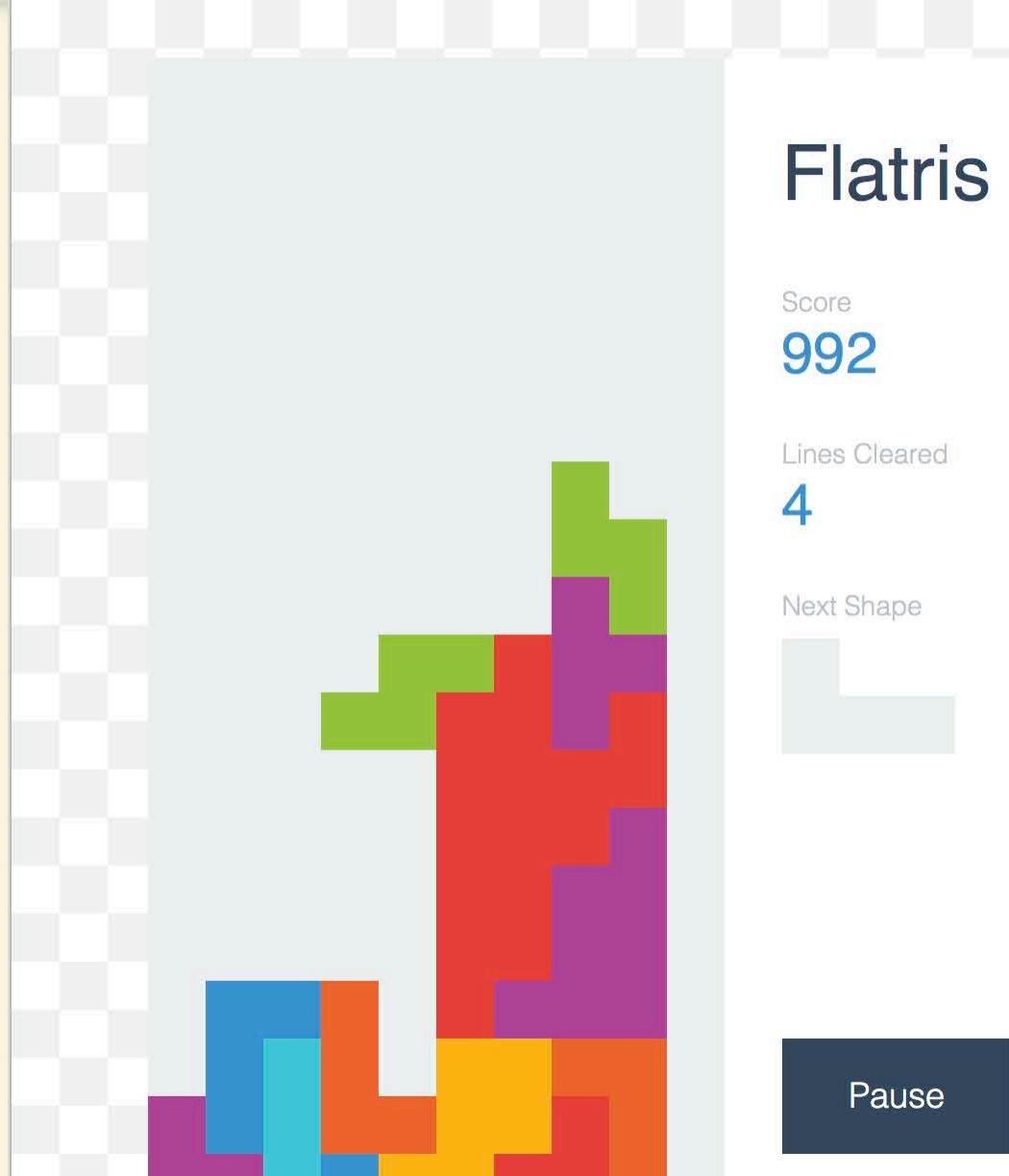
color-of-the-I-tetrimino

color-of-the-J-tetrimino

color-of-the-L-tetrimino

color-of-the-O-tetrimino

```
1  {
2    "reduxState": {
3      "gameState": "PLAYING",
4      "score": 992,
5      "lines": 4,
6      "nextTetrimino": "J",
7      "grid": [
8        [
9          null,
10         null,
11         null,
12         null,
13         null,
14         null,
15         null,
16         null,
17         null
18       ],
19     ],
20     [
21       null,
22       null,
23       null,
24       null,
25       null,
26       null,
27       null,
28       null,
29       null,
30       null
31     ],
32     [
33       null,
34       null
35     ]
36   }
37 }
```



Flatris

Score

992

Lines Cleared

4

Next Shape



Pause

github.com/react-cosmos/react-cosmos

General Boilerplate vs Doc Tool

Gen Boilerplate

Complete flexibility on doc approach

Many more options

No popular component libs use doc tool

Doc Tool

Clear documentation approach

Searchable component list

Working examples

Prop documentation

Code snippet display



Dev Environment Options

Option 3:
Custom

Build your own



Why Build Your Own Dev Environment?

Advantages

- Complete control
- Pick your favorite tooling
- Complete understanding
- Quickly change as needed

Disadvantages

- More up front work
- Existing boilerplates work great
- Boilerplates get you 90% there





What do you want to learn?

Cory

housecor@gmail.com



...



Building Applications with React and Redux in ES6

by Cory House

Learn how to use Redux, React Router, and ES6 to build a real world app with React. Use Webpack, Babel, ESLint, npm scripts, Mocha, Enzyme, and more to build a rich, one step, custom React development environment and build process from the ground up.

Resume Course

Bookmark

Add to Channel

Live mentoring

Table of contents

Description

Transcript

Exercise files

Discussion

Recommended

Expand all

Course Overview



1m 36s



Intro



10m 13s



Environment Setup



46m 53s



React Component Approaches



16m 7s



Course author



Cory House

Cory is an independent consultant with over 15 years of experience in software development. He is a Microsoft MVP, ASP Insider, and a member of the Telerik developer experts program.

Course info

Level Intermediate

Rating (587)

My rating

Duration 6h 13m

Released 20 May 2016

Share course





What do you want to learn?

Cory

housecor@gmail.com



...



Building a JavaScript Development Environment

by Cory House

Starting a new JavaScript project from scratch is overwhelming. This course provides a playbook outlining the key decisions you need to make. Build a robust development environment that handles bundling, linting, transpiling, testing, and much more.

▶ Resume Course

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Table of contents

Description

Transcript

Exercise files

Discussion

Recommended

This course is part of:  Node.js Path

Expand all

▶ Course Overview



1m 30s



Course author



Cory House

Cory is an independent consultant with over 15 years of experience in software development. He is a Microsoft MVP, ASP Insider, and a member of the Telerik developer experts program.

Course info

Level Beginner

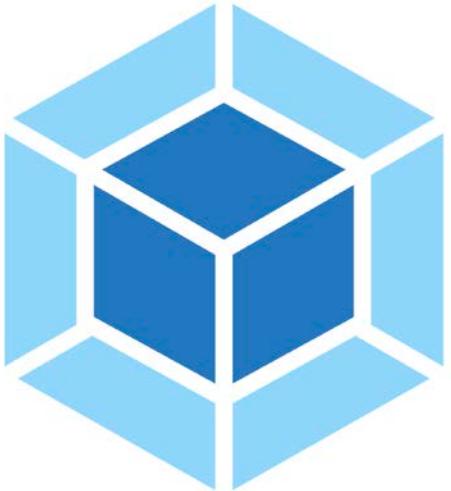
Rating  (202)

My rating 

Duration 5h 19m

Released 9 Nov 2016

Share course



webpack

Used by most popular
React component libraries



Rollup

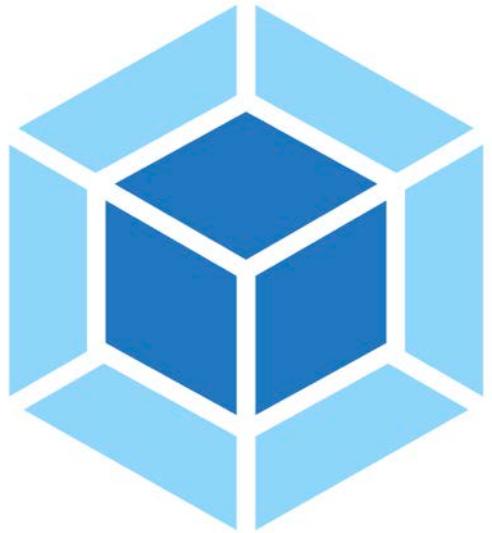
Recommended for libraries



For this course, we'll use
create-react-app.



Create-react-app



Bundling
Webpack



Transpiling
Babel



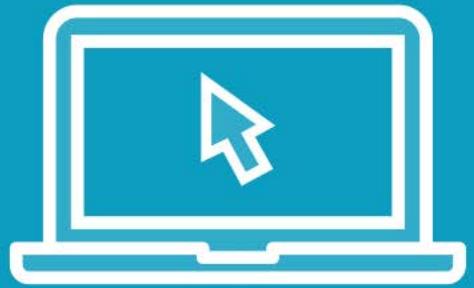
Linting
ESLint



Testing
Jest



Demo



Install Node and Git





[HOME](#) | [ABOUT](#) | [DOWNLOADS](#) | [DOCS](#) | [FOUNDATION](#) | [GET INVOLVED](#) | [SECURITY](#) | [NEWS](#)

Node.js® is a JavaScript runtime built on [Chrome's V8 JavaScript engine](#). Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient. Node.js' package ecosystem, [npm](#), is the largest ecosystem of open source libraries in the world.

Download for macOS (x64)

v6.9.4 LTS

Recommended For Most Users

v7.4.0 Current

Latest Features

[Other Downloads](#) | [Changelog](#) | [API Docs](#)

[Other Downloads](#) | [Changelog](#) | [API Docs](#)

Or have a look at the [LTS schedule](#).

nodejs.org



FAST, RELIABLE, AND SECURE DEPENDENCY MANAGEMENT.

[GET STARTED](#)

[INSTALL YARN](#)

Star 24,350

Stable: [v0.23.2](#)

[About](#)[Documentation](#)[Blog](#)[Downloads](#)[GUI Clients](#)[Logos](#)[Community](#)

The entire [Pro Git book](#) written by Scott Chacon and Ben Straub is available to [read online for free](#). Dead tree versions are available on [Amazon.com](#).

Downloads

[!\[\]\(2f1827fcacb2b2cce95d0ea67f936e78_img.jpg\) Mac OS X](#)[!\[\]\(fd4eff4615dcfd347cc12209e68f139c_img.jpg\) Windows](#)[!\[\]\(240b86a13bda89e09103fb7dead5bf82_img.jpg\) Linux](#)[!\[\]\(2cc838742a61409f21769883fdf5527a_img.jpg\) Solaris](#)

Older releases are available and the [Git source repository](#) is on GitHub.

GUI Clients

Git comes with built-in GUI tools ([git-gui](#), [gitk](#)), but there are several third-party tools for users looking for a platform-specific experience.

[View GUI Clients →](#)

Git via Git

If you already have Git installed, you can get the latest development version via Git itself:

```
git clone https://github.com/git/git
```

You can also always browse the current contents of the git repository using the [web interface](#).

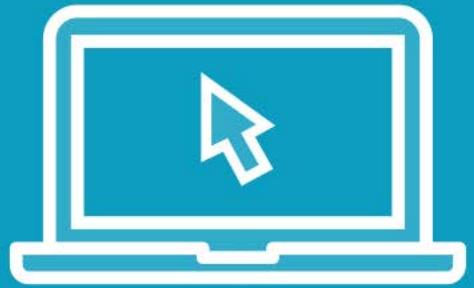


Logos

Various Git logos in PNG (bitmap) and EPS (vector) formats are available for use in online and print projects.

[View Logos →](#)

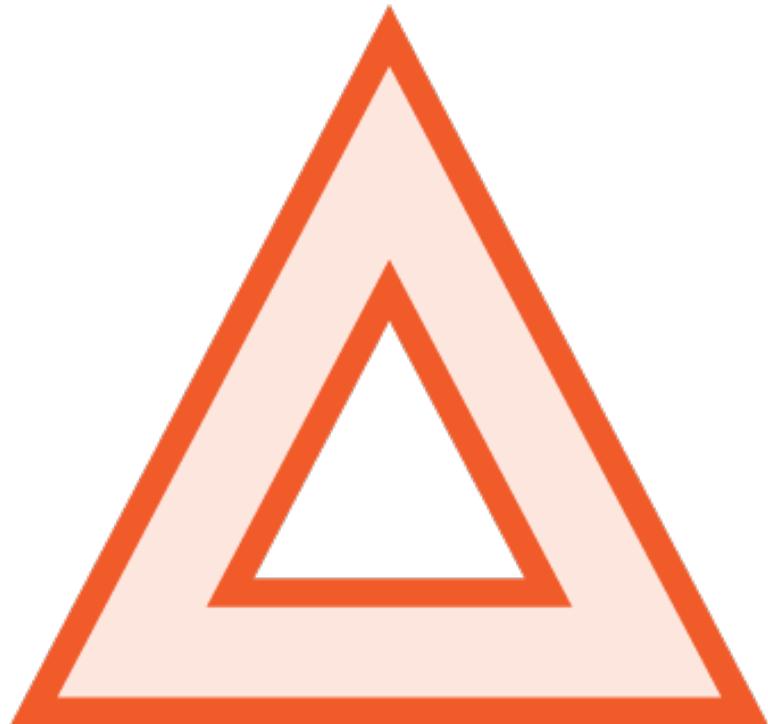
Demo



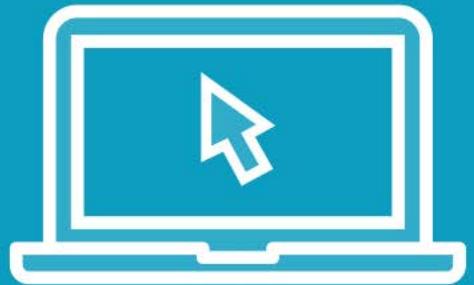
Create GitHub repository



Versions



Demo



Create project using `create-react-app`



Wrap Up



We're creating a component library

Dev environment foundation

- Over 100 boilerplates
- Many doc-style libraries
- Build your own for full control

We're using `create-react-app`

Next up: Documentation

