

Environment Setup



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#JavaScriptFatigue



GitHub, Inc. [US] <https://github.com/coryhouse/react-slingshot>

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

191 commits 3 branches 10 releases 15 contributors

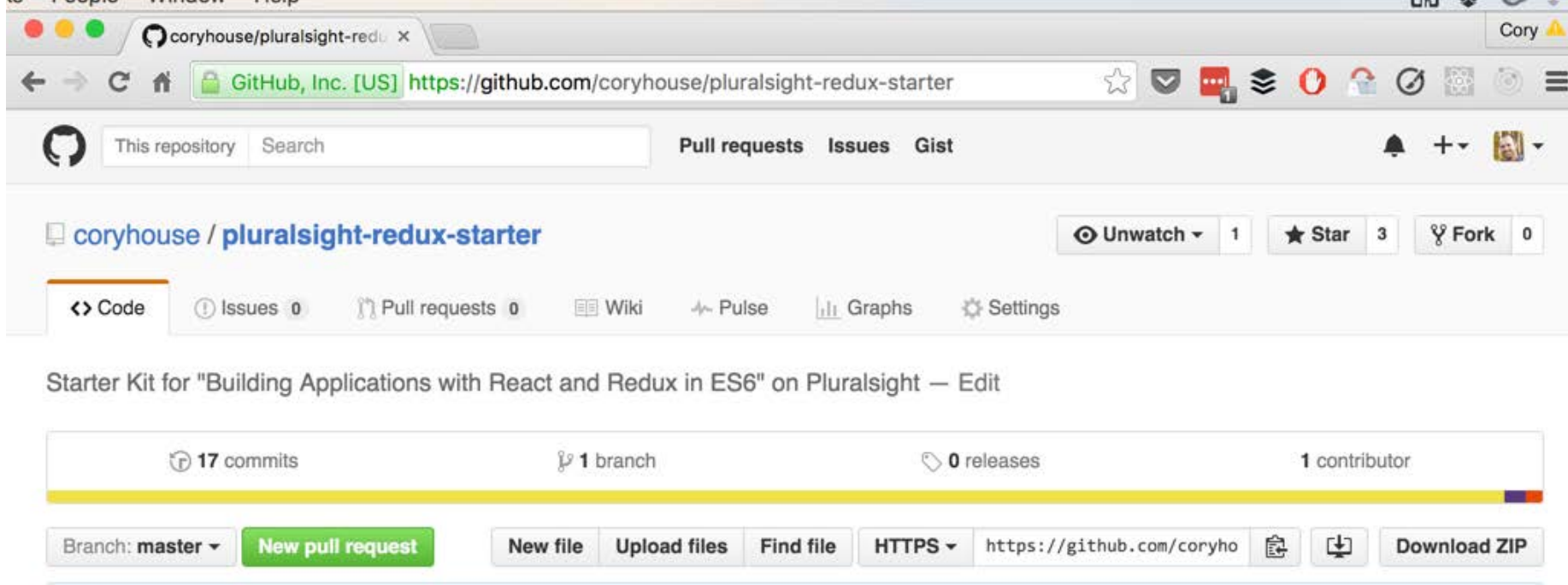
Branch: master New pull request New file Upload files Find file HTTPS <https://github.com/coryho> Download ZIP

corvhouse Updated package.json docs Latest commit 5ea1359 6 hours ago

We're not going to use this.

tools	Resolving issue #102. Refactored long command-line call to separate f...	a day ago
.babelrc	Streamlined hot reloading configuration using babel-preset-react-hmre	16 days ago
.editorconfig	Initial Release	3 months ago
.eslintrc	Updated tests for Components, Container, Actions, Reducers and Store...	20 hours ago
.gitignore	Initial Release	3 months ago
.npmrc	Put best practice in place to use "save exact" for npm packages.	3 months ago
CONTRIBUTORS.md	Created CONTRIBUTORS.md	a month ago
LICENSE	Initial commit	3 months ago
README.md	Update README.md	7 days ago
package.json	Fixed upstream merge conflicts	19 hours ago





We'll use this:
github.com/coryhouse/pluralsight-redux-starter

.eslintrc	Streamlined	8 hours ago
.gitignore	Initial commit	7 days ago
.npmrc	Initial commit	7 days ago
README.md	Update README.md	6 hours ago
package.json	Updated build config	8 hours ago
webpack.config.dev.js	Adding	8 hours ago
webpack.config.prod.js	Adding	8 hours ago



Our Dev Environment

Automated Testing

Linting

Minification

Bundling

JSX compilation

ES6 transpilation

One command!



The Plan



Tech Overview

- Versions
- Hot Reloading

Environment Build



Tech Overview



Babel

BABEL



BABEL

Babel-polyfill



Symbols

Symbols enable access control for object state. Symbols allow properties to be keyed by either `string` (as in ES5) or `symbol`. Symbols are a new primitive type. Optional `name` parameter used in debugging - but is not part of identity. Symbols are unique (like gensym), but not private since they are exposed via reflection features like `Object.getOwnPropertySymbols`.

```
(function() {  
  
  // module scoped symbol  
  var key = Symbol("key");  
  
  function MyClass(privateData) {  
    this[key] = privateData;  
  }  
  
  MyClass.prototype = {  
    doStuff: function() {  
      ... this[key] ...  
    }  
  };  
  
  // Limited support from Babel, full support requires native implementation.  
  typeof key === "symbol"  
})();  
  
var c = new MyClass("hello")  
c["key"] === undefined
```

Limited support via polyfill

Limited support requires the Babel [polyfill](#). Due to language limitations, some features can't be transpiled or polyfilled. See [core.js's caveats section](#) for more details.

Introduction

ECMAScript 2015 Features

Arrows and Lexical This

Classes

Enhanced Object Literals

Template Strings

Destructuring

Default + Rest + Spread

Let + Const

Iterators + For..Of

Generators

Comprehensions

Unicode

Modules

Module Loaders

Map + Set + WeakMap + WeakSet

Proxies

Symbols

Subclassable Built-ins

Math + Number + String + Object
APIs

Binary and Octal Literals

Promises

Reflect API

Tail Calls



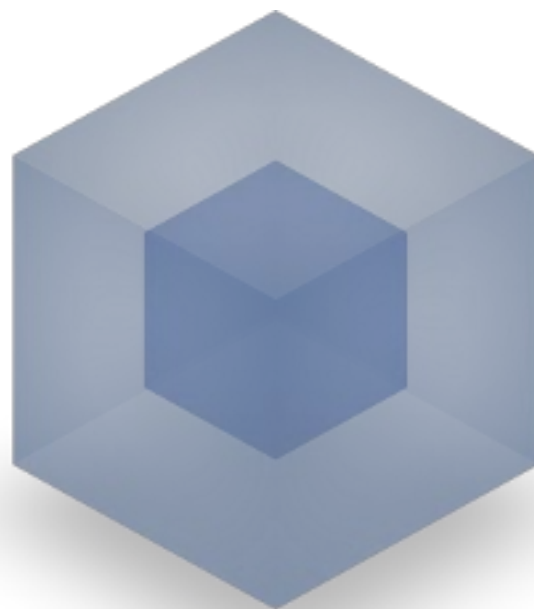
BABEL

Babel-polyfill ← ~50K. Ouch.

Consider pulling in the polyfills you need instead.



Webpack



webpack
MODULE BUNDLER



Mocha



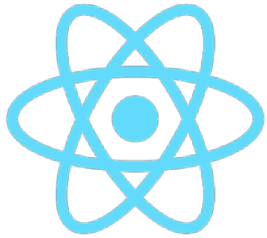
simple, flexible, fun



ESlint



Versions

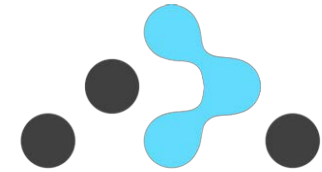


15.0.2



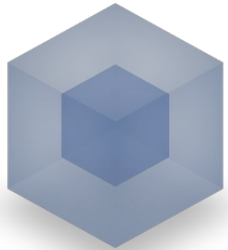
Redux

3.5.2



REACT/ROUTER

2.4.0



webpack
MODULE BUNDLER

1.13



6.*



Hot Reloading



React Hot Loader 3

- **Almost here...**



Hot Reloading

[babel-preset-react-hrme](#)

Warning:

- Doesn't reload functional components
- Doesn't reload container functions
- Other options exist



Demo



Let's build an *awesome* dev environment!



Webstorm



Known Issues

1. Mac: Must press Ctrl+C *twice* to kill the start script.
2. Windows in Webstorm: Must click red x to close the terminal. Ctrl+C won't kill the start script.



Why npm scripts?



Easy to learn

Simple

No extra layer of abstraction

No dependence on separate plugins

Simpler debugging

Better docs

Read more: bit.ly/npmvsgulp



Mocha: Two Related Problems



Issue 1: Can't configure to look for files at infinite depth in /src directory

Solution: Specify a glob for each directory more than one level deep.

Issue 2: Mocha throws an error if glob finds no files.

Solution: Create an empty file that matches the glob until you've created your first test.



Summary



Dev environment, complete!

- Babel
- Webpack
- ESLint
- Mocha
- Express
- npm Scripts
- One command!

Next up: React Component Approaches

