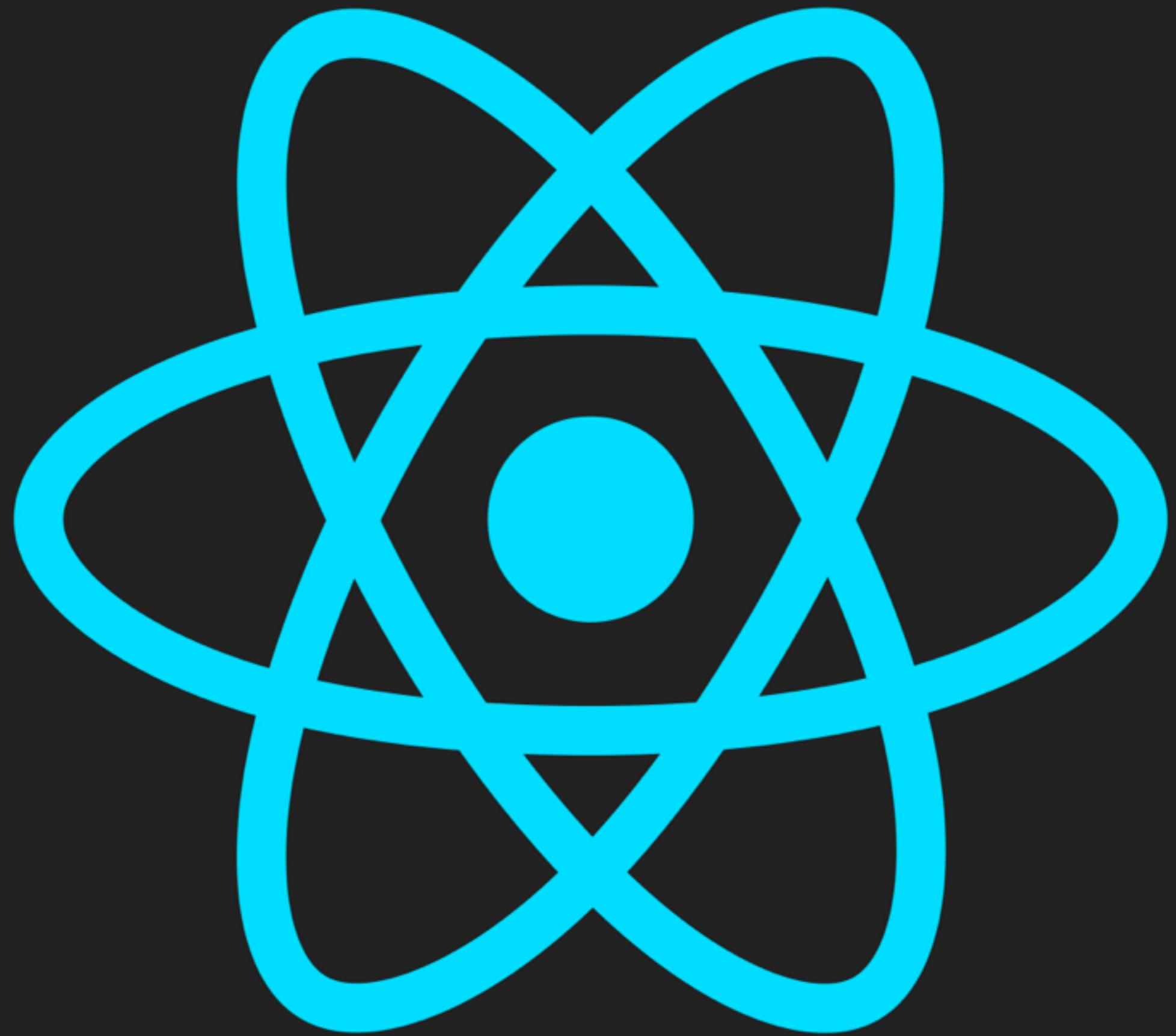


Bootstrapping React Applications

Len Smith
@ignu

create-react-app

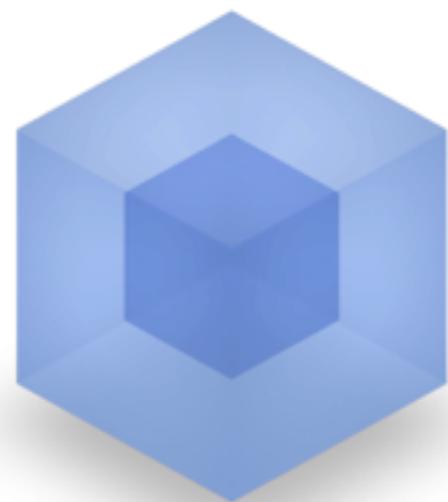
este.js



```
class Hello extends React.Component {  
  render: () =>  
    return <h1>Hello {this.props.message}</h1>;  
}  
  
<Hello message="world"/>
```

```
<TodoList>
  <Todo value={ "Happy Hour" } complete={true} />
  <Todo value={ "Finish talk" } complete={false} />
</TodoList>
```

```
React.createElement('div', {},
  React.createElement('ul', {},
    React.createElement('li', {},
      React.createElement('h2',
        'Len Smith')
    );
    React.createElement('li', {},
      React.createElement('a',
        {href: 'mailto:len@barrison.com'},
        'len@barrison.com')
    );
  );
);
);
```



webpack
MODULE BUNDLER

create-react-app

A screenshot of a web browser displaying the GitHub repository page for 'facebookincubator / create-react-app'. The page has a white background with black text and some blue highlights. At the top, there's a navigation bar with links for Personal, Open source, Business, Explore, Pricing, Blog, Support, This repository (which is selected), Search, and Sign in. Below the navigation bar, the repository name 'facebookincubator / create-react-app' is shown in blue. To the right of the repository name are buttons for Watch (310), Star (7,998), and Graphs. Below these buttons are links for Code, Issues (51), Pull requests (14), Pulse, and Graphs. A large paragraph of text below the links reads: 'Create React apps with no build configuration.'

GitHub, Inc. [US] <https://github.com/facebookincubator/create-react-app>

Personal Open source Business Explore Pricing Blog Support This repository Search Sign in

facebookincubator / [create-react-app](#)

Watch 310 Star 7,998

Code Issues 51 Pull requests 14 Pulse Graphs

Create React apps with no build configuration.

npm install create-react-app -g

MacBook-Pro:~ code%

[

./package.json

```
"devDependencies": {  
  "react-scripts": "0.2.1"  
},  
"dependencies": {  
  "react": "^15.2.1",  
  "react-dom": "^15.2.1"  
},  
"scripts": {  
  "start": "react-scripts start",  
  "build": "react-scripts build",  
  "eject": "react-scripts eject"  
},  
"eslintConfig": {  
  "extends": "./node_modules/react-scripts/config/eslint.js"  
}
```

/create-react-app/package.json

```
{
  "dependencies": {
    "autoprefixer": "6.4.0",
    "babel-core": "6.11.4",
    "babel-eslint": "6.1.2",
    "babel-jest": "14.1.0",
    "babel-loader": "6.2.4",
    "babel-plugin-syntax-async-functions": "6.8.0",
    "babel-plugin-syntax-trailing-function-commas": "6.8.0",
    "babel-plugin-transform-class-properties": "6.11.5",
    "babel-plugin-transform-object-rest-spread": "6.8.0",
    "babel-plugin-transform-react-constant-elements": "6.9.1",
    "babel-plugin-transform-regenerator": "6.11.4",
    "babel-plugin-transform-runtime": "6.12.0",
    "babel-preset-es2015": "6.9.0",
    "babel-preset-es2016": "6.11.3",
    "babel-preset-react": "6.11.1",
    "babel-runtime": "6.11.6",
    "case-sensitive-paths-webpack-plugin": "1.1.2",
    "chalk": "1.1.3",
    "connect-history-api-fallback": "1.2.0",
    "cross-spawn": "4.0.0",
    "css-loader": "0.23.1",
    "detect-port": "1.0.0",
    "eslint": "3.2.2",
    "eslint-loader": "1.4.1",
    "eslint-plugin-flowtype": "2.4.0",
    "eslint-plugin-import": "1.12.0",
    "eslint-plugin-jsx-a11y": "2.0.1",
    "eslint-plugin-react": "5.2.2",
    "extract-text-webpack-plugin": "1.0.1",
    "file-loader": "0.9.0",
    "filesize": "3.3.0",
    "fs-extra": "0.38.0",
    "gzip-size": "3.0.0",
    "html-webpack-plugin": "2.22.0",
    "http-proxy-middleware": "0.17.0",
    "jest": "14.1.0",
    "json-loader": "0.5.4",
    "opn": "4.0.2",
    "postcss-loader": "0.9.1",
    "promise": "7.1.1",
    "recursive-readdir": "2.0.0",
    "rimraf": "2.5.4",
    "strip-ansi": "3.0.1",
    "style-loader": "0.13.1",
    "url-loader": "0.5.7",
    "webpack": "1.13.1",
    "webpack-dev-server": "1.14.1",
    "whatwg-fetch": "1.0.0"
  },
  "devDependencies": {
    "bundle-deps": "1.0.0",
    "react": "^15.3.0",
    "react-dom": "^15.3.0",
    "react-test-renderer": "^15.3.0"
  }
}
```

Success! Created conference at /Users/ignu/code/conference.
Inside that directory, you can run several commands:

- * npm start: Starts the development server.
- * npm run build: Bundles the app into static files for production.
- * npm run eject: Removes this tool. If you do this, you can't go back!

We suggest that you begin by typing:

```
cd conference  
npm start
```

Happy hacking!

```
• ~/code/ cd conference  
• ~/code/conference/ █  
• ~\code\conference\ █  
• ~\code\conference\
```

The image shows a Mac desktop with several windows open:

- Emacs**: A text editor window.
- React App**: A browser window displaying a "Welcome to React" page with a React logo and instructions to edit `src/App.js`.
- package.json<conference>**: An IDE or code editor window showing the `package.json` file for a project named "conference". The file includes dependencies for React and React DOM, and scripts for starting, building, and ejecting the application.
- Console**: The developer tools' Console tab, which is currently empty.

```
{  
  "name": "conference",  
  "version": "0.0.1",  
  "private": true,  
  "devDependencies": {  
    "react-scripts": "0.2.1"  
  },  
  "dependencies": {  
    "react": "^15.2.1",  
    "react-dom": "^15.2.1"  
  },  
  "scripts": {  
    "start": "react-scripts start",  
    "build": "react-scripts build",  
    "eject": "react-scripts eject"  
  },  
  "eslintConfig": {  
    "extends": "./node_modules/react-scripts/config/eslint.js"  
  }  
}
```

Emacs

React App

localhost:3000

Len

App.js

```
import React, { Component } from 'react';
import logo from './logo.svg';
import './App.css';

class App extends Component {
  render() {
    return (
      <div className="App">
        <div className="App-header">
          <img src={logo} className="App-logo" alt="logo" />
          <h2>Conference</h2>
        </div>
        <p className="App-intro">
          To get started, edit <code>src/App.js</code> and save to reload.
        </p>
      </div>
    );
  }
}

export default App;
```

To get started, edit `src/App.js` and save to reload.

Elements Console Sources Network Timeline Profiles > | : > export default App;

top

Preserve log

Filter

Regex Hide network messages

All Errors Warnings Info Logs Debug Handled

[HMR] Waiting for update signal from WDS... dev-server.js:60

[WDS] Hot Module Replacement enabled. client:22

unix | 10:27 All

SPC p-

Conference Vim*

_mbsetupuser 1:08 PDT

```
2 import logo from './logo.svg';
3 import './App.css';
4
5 class App extends Component {
6   render() {
7     return (
8       <div className="App">
9         <div className="App-header">
10           <img src={logo} className="App-logo" alt="logo" />
11           <h2>Conference</h2>
12         </div>
13         <p className="App-intro" onClick={this.closeIntro}>
"src/App.js" 21L, 515C written
```

Compiled successfully!

The app is running at <http://localhost:3000/>

Conference Vim*

_mbsetupuser 1:13 PDT

```
2 import logo from './logo.svg';
3 import './App.css';
4
5 class App extends Component {
6   render() {
7     let { showDetails } = this.state;
8     return (
9       <div className="App">
10         <div className="App-header">
11           <img src={logo} className="App-logo" alt="logo" />
12           <h2>Conference</h2>
13         </div>
```

/Users/ignu/code/conference/src/App.js

7:11 warning 'showDetails' is defined but never used no-unused-vars

* 1 problem (0 errors, 1 warning)

You may use special comments to disable some warnings.

Use // eslint-disable-next-line to ignore the next line.

Use /* eslint-disable */ to ignore all warnings in a file.

Use /* eslint-disable */ to ignore all warnings in a file.

Conference Vim*

_mbsetupuser

1:28 PDT

```
1 import React, { Component } from 'react';
2 import logo from './logo.svg';
3 import './App.css';
4
5 class App extends Component {
6   constructor() {
7     super();
8     this.state = { showDetails: true };
9   }
10  render() {
11    let { showDetails } = this.state;
12    return (
"src/App.js" 27L, 659C written
```

Compiled successfully!

The app is running at <http://localhost:3000/>

Conference Vim zsh*

_mbsetupuser 7:56 PDT

apple ~/code/conference/ |

Conference Vim zsh*

apple ~/code/conference/

_mbsetupuser

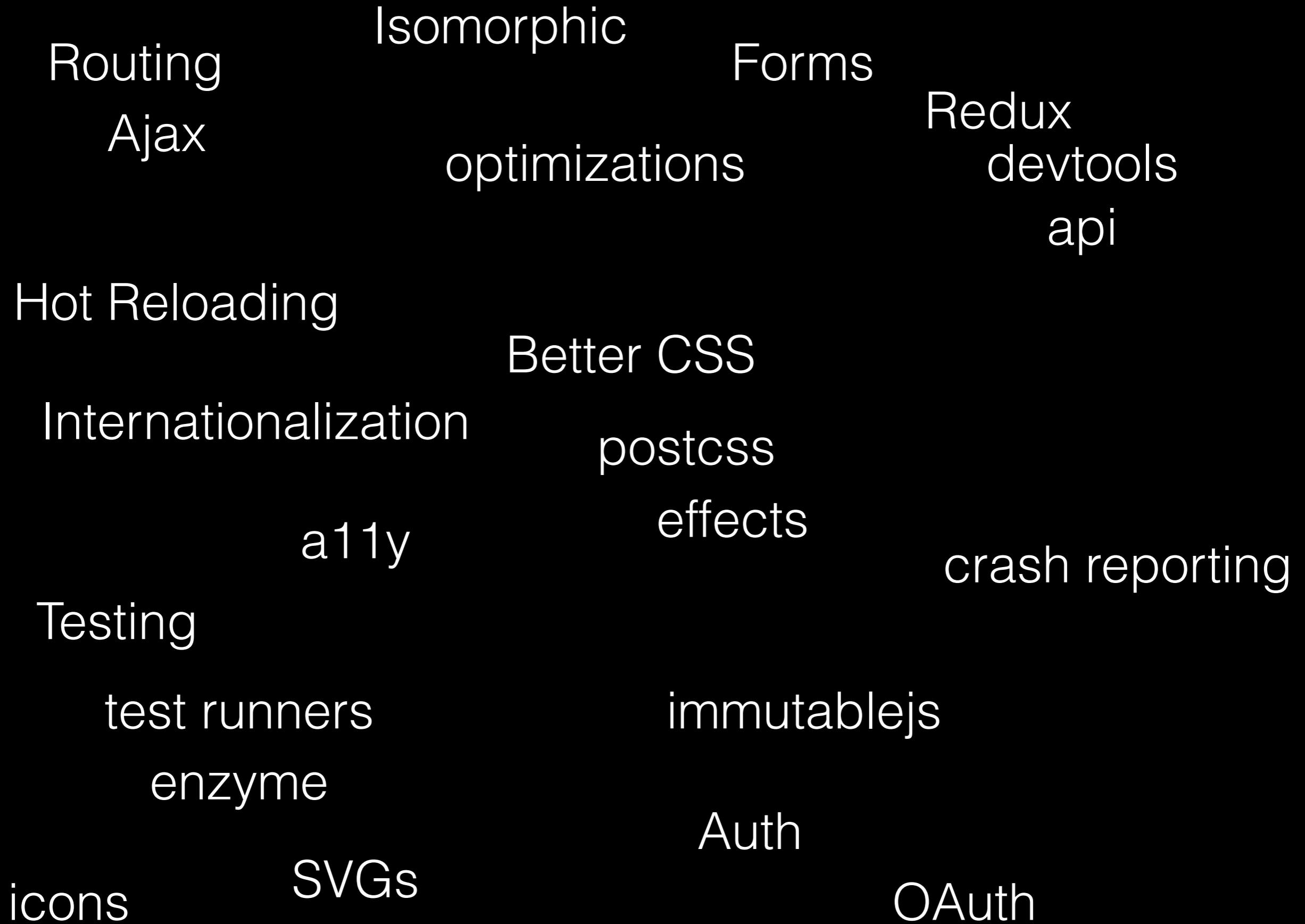
8:57 PDT

./package.json

```
{  
  "name": "conference",  
  "version": "0.0.1",  
  "private": true,  
  "devDependencies": {  
    "autoprefixer": "6.3.7",  
    "babel-core": "6.11.4",  
    "babel-eslint": "6.1.2",  
    "babel-loader": "6.2.4",  
    "babel-plugin-syntax-trailing-function-commas": "6.8.0",  
    "babel-plugin-transform-class-properties": "6.11.5",  
    "babel-plugin-transform-object-rest-spread": "6.8.0",  
    "babel-plugin-transform-react-constant-elements": "6.9.1",  
    "babel-plugin-transform-runtime": "6.12.0",  
    "babel-preset-es2015": "6.9.0",  
    "babel-preset-es2016": "6.11.3",  
    "babel-preset-react": "6.11.1",  
    "babel-runtime": "6.11.6",  
    "case-sensitive-paths-webpack-plugin": "1.1.2",  
    "chalk": "1.1.3",  
    "cross-spawn": "4.0.0",  
    "css-loader": "0.23.1",  
    "eslint": "3.1.1",  
    "eslint-loader": "1.9.0",  
    "extract-text-webpack-plugin": "2.0.2",  
    "file-loader": "0.9.1",  
    "html-loader": "0.5.1",  
    "html-webpack-plugin": "2.2.0",  
    "isomorphic-fetch": "2.2.1",  
    "json-loader": "0.5.4",  
    "node-sass": "3.13.0",  
    "optimize-css-assets-webpack-plugin": "1.1.0",  
    "path-loader": "0.5.0",  
    "postcss-loader": "0.12.0",  
    "react-hot-loader": "1.3.0",  
    "style-loader": "0.18.2",  
    "url-loader": "0.5.7",  
    "webpack": "2.2.0",  
    "webpack-dev-middleware": "1.6.0",  
    "webpack-hot-middleware": "2.18.0",  
    "whatwg-fetch": "1.0.0"  
  }  
}
```







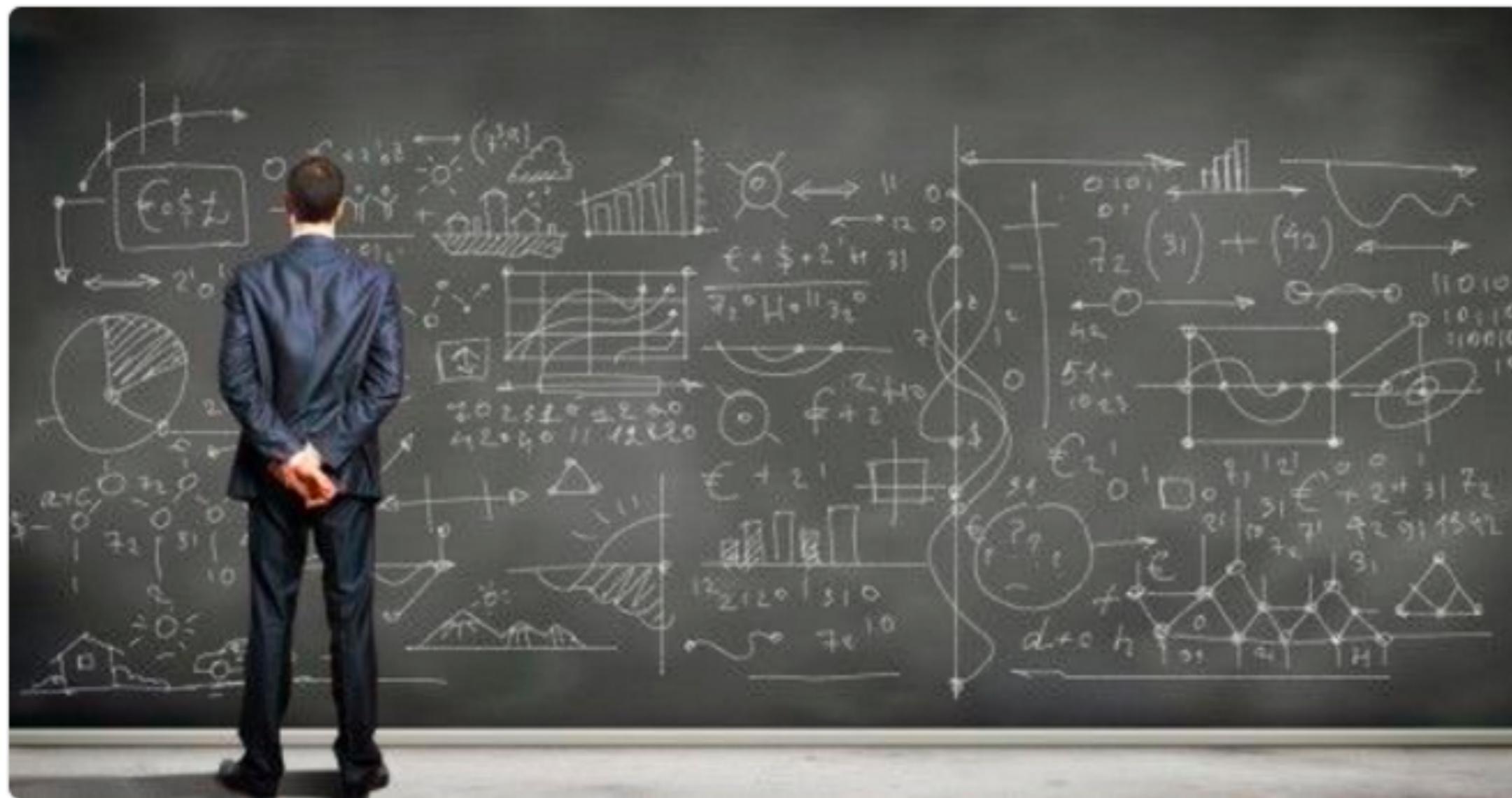


Thomas Fuchs
@thomasfuchs



Following

Marc was almost ready to implement his "hello world" React app



RETWEETS

3,312

LIKES

3,708





sign up or log in



react



18399 results for '**react**'



JAVASCRIPT

FATIGUE

 [kriasoft / react-starter-kit](#)

 Watch ▾

400

 [coryhouse / react-slingshot](#)

 Watch ▾

140

 [infinitered / ignite](#)

 Watch ▾

87

 [este / este](#)

 Watch ▾

175

- web only
- redux
- remove-demo

- Isomorphic
- express back end
- graphql

- React Native Only
- Lots of controls, options
- Redux Sagas
- Redux Sauce
- Api Sauce
- Reactotron
- No Forking



sc 🐹 zsh*

_mbsetupuser

8:53 PDT

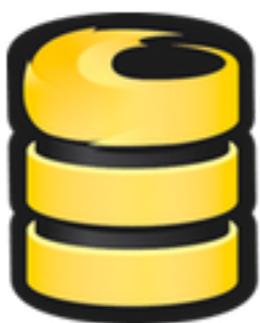
apple ~/code/ |

sc ~ zsh*

_mbsetupuser 12:35 PDT

● ~code/sc/ [master] |

<http://este.firebaseioapp.com>



Firebase

MacBook-Pro ~ %

/Users/ignu/code/sc/

- └ .git/
- └ android/
- └ build/
- └ firebase/
- └ gulp/
- └ ios/
- └ messages/
- └ node_modules/
- └ src/
- └ webpack/
- ├ .babelrc
- ├ .buckconfig
- ├ .editorconfig
- └ .eslintignore
- └ .eslintrc

- > **src/**
 - > **browser/**
 - > **common/**
 - > **native/**
 - > **server/**

```
common/
  app/
  auth/
  config/
  device/
  intl/
  lib/
  todos/
  users/
    _config.json
    configureBluebird.js
    configureMiddleware.js
    configureReducer.js
```

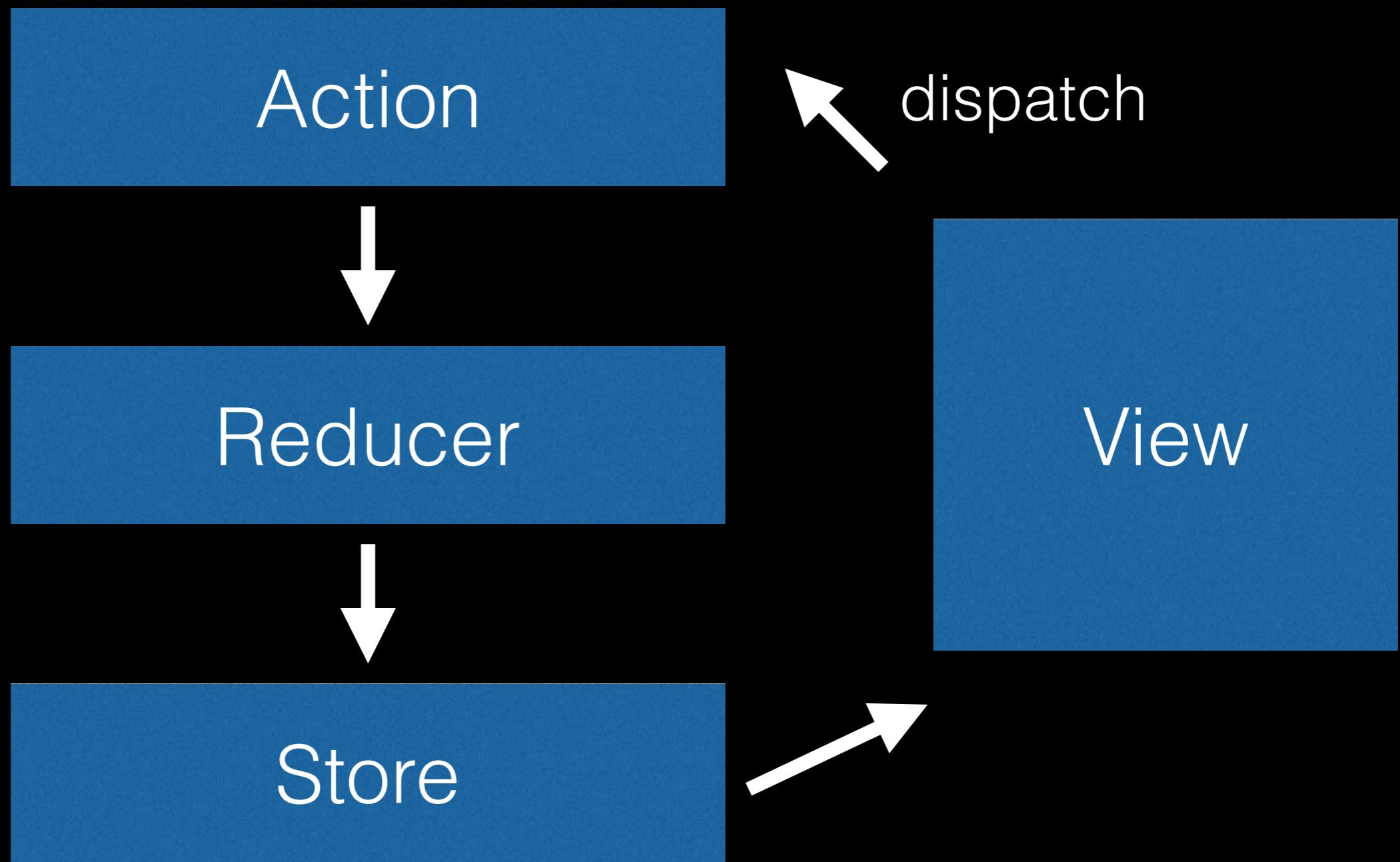
```
‐ todos/
  ‐ __test__/
  ‐ actions.js
  ‐ buttonsMessages.js
  ‐ newTodoMessages.js
  ‐ reducer.js
  ‐ todo.js
  ‐ todosMessages.js
```



Redux

Entire Application State
in one single object

Reducers are Pure functions
taking in old state
and returning a new one



```
export const ADD_TODO = 'ADD_TODO';

export function addTodo(title) {
  return ({ getUid, now }) => ({
    type: ADD_TODO,
    payload: {
      createdAt: now(),
      id: getUid(),
      title: title.trim(),
    },
  });
}

}
```



```
test('addTodo creates todo', t => {
  const title = 'Hello';
  const deps = {
    getUid: () => 'uid',
    now: () => 1,
  };
  const action = actions.addTodo(title)(deps);
  t.deepEqual(action, {
    type: 'ADD_TODO',
    payload: {
      createdAt: 1,
      id: 'uid',
      title: 'Hello',
    },
  });
});
```

```
import * as actions from './actions';
import Todo from './todo';
import { Map } from 'immutable';
import { Record } from '../transit';

const InitialState = Record({
  map: Map(),
}, 'todos');

export default function todosReducer(state = new InitialState, action) {
  switch (action.type) {

    case actions.ADD_TODO: {
      const todo = new Todo(action.payload);
      return state.update('map', map => map.set(todo.id, todo));
    }
  }
}
```

IMMUTABLE



Star

14262

“Immutable data cannot be changed once created, leading to much simpler application development [...].

Persistent data presents a mutative API which does not update the data in-place, but instead always yields new updated data.”

```
const jon = {firstName: 'Jon'};  
const tyrion = jon;  
tyrion.firstName = 'Tyrion'  
console.log(jon.firstName); // 'Tyrion'
```

```
const jon = Immutable.Map({firstName: 'Jon'});  
const tyrion = jon.set('firstName', 'Tyrion');  
jon.get('firstName'); // 'Jon'  
tyrion.get('firstName'); // 'Tyrion'
```

List
Map
OrderedMap
Set
Stack
Range
Seq

```
import * as actions from './actions';
import Todo from './todo';
import { Map } from 'immutable';
import { Record } from '../transit';

const InitialState = Record({
  map: Map(),
}, 'todos');

export default function todosReducer(state = new InitialState, action) {
  switch (action.type) {

    case actions.ADD_TODO: {
      const todo = new Todo(action.payload);
      return state.update('map', map => map.set(todo.id, todo));
    }
  }
}
```

```
case ADD_TODO:  
  return Object.assign({}, state, {  
    todos: [  
      ...state.todos,  
      {  
        text: action.text,  
        completed: false  
      }  
    ]  
  })
```

```
case TOGGLE_TODO:  
  return Object.assign({}, state, {  
    todos: state.todos.map((todo, index) => {  
      if (index === action.index) {  
        return Object.assign({}, todo, {  
          completed: !todo.completed  
        })  
      }  
      return todo  
    })  
  })
```

```
case actions.TOGGLE_TODO_COMPLETED: {
  const { todo } = action.payload;
  return state.updateIn(['map', todo.id, 'completed'], value => !value);
}
```

```
state.updateIn(['map', todo.id, 'completed'],
```

Redux DevTools

redux-storage

common/configureStore.js

```
const middleware = configureMiddleware(  
  initialState,  
  platformDeps,  
  platformMiddleware  
) ;
```

browser/main.js

```
import createStorageEngine from 'redux-storage-engine-localstorage';  
  
const store = configureStore({  
  initialState,  
  platformDeps: { createStorageEngine },  
  platformMiddleware: [routerMiddleware(browserHistory)],  
});
```

So many little things!



common/theme.js

```
export default {  
  fontSize: 16,  
  fontFamily: 'System',  
  lineHeight: 1.5,  
  textColor: '#7C7C7C',  
  backgroundColor: '#fff',  
  inverseTextColor: '#eee',  
  inverseBackgroundColor: '#2C2C2C',  
  separator: '#f1f1f1',
```

autoprefixer

```
:fullscreen a {  
  display: flex  
}
```

```
:-webkit-full-screen a {  
  display: -webkit-box;  
  display: flex  
}  
:-moz-full-screen a {  
  display: flex  
}  
:-ms-fullscreen a {  
  display: -ms-flexbox;  
  display: flex  
}  
:fullscreen a {  
  display: -webkit-box;  
  display: -ms-flexbox;  
  display: flex  
}
```

react-router-scroll

React Helmet

```
<TodoList>
  <Helmet title="Todos"/>
</Todos>

<TodoDetail>
  <Helmet title={ this.props.title }/>
</TodoDetail>

<Helmet titleTemplate="%s - MySite.com"/>
```

apple ~ /code/sc/ [master] └

{

./browser/app/components/ Loading.react.js

```
const messages = defineMessages({  
  loadingText: {  
    defaultMessage: 'Loading',  
    id: 'loading.loadingText',  
  },  
  longLoadingText: {  
    defaultMessage: 'Still loading, please check your connection',  
    id: 'loading.longLoadingText',  
  },  
});  
  
export default class Loading extends Component {  
  constructor() {  
    super();  
  }  
  render() {  
    return (  
      <div>  
        <h1>{messages.loadingText.defaultMessage}</h1>  
        <h2>{messages.longLoadingText.defaultMessage}</h2>  
      </div>  
    );  
  }  
}
```

Loading.react.js continued...

```
export default class Loading extends Component {
  componentDidMount() {
    // www.nngroup.com/articles/response-times-3-important-limits
    this.timer = setTimeout(() => {
      this.setState({ currentText: messages.loadingText });
    }, 1000);
    this.longTimer = setTimeout(() => {
      this.setState({ currentText: messages.longLoadingText });
    }, 10000);
  }

  render() {
    return (
      <div className="este-loading">
        <FormattedMessage {...currentText}>
          {message =>
            <Helmet title={message} />
          }
        </FormattedMessage>
      
```



Thanks!

Len Smith

@ignu

<http://turing.cool>

