

React

Criar uma app do zero

Creating an app from scratch

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Xpand IT Products

Atlassian Apps for Jira (add-ons)



XRAY



XPORTER

Webinar Files

```
git clone https://github.com/goncalomb/talk-intro-nodejs-react.git
```

React

JavaScript Library for User Interfaces

- Originally created by Facebook
- Declarative
- Reusable Components

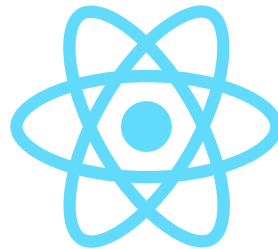
React

Using Node.js and the HTML DOM.

- Node.js: JS Runtime
- Babel: transpiler
- Webpack: file bundler



Node.js



React



Webpack

AngularJS

```
<div>
  <label>Name:</label>
  <input type="text" ng-model="yourName" placeholder="Enter a name here">
  <hr>
  <h1>Hello {{yourName}}!</h1>
</div>
```

React Components

ECMAScript 2015 (ES6)

```
class MyComponent extends React.Component {  
  constructor(props) {  
    super(props)  
    /* ... */  
  }  
  render() {  
    return (  
      <div>  
        <p>{this.props.name} ({this.props.age})</p>  
      </div>  
    );  
  }  
};
```


React Elements

```
const el = document.createElement('a');  
el.setAttribute('href', 'https://www.google.com/');  
el.style.fontSize = '2em';  
el.innerText = 'Google';  
document.body.appendChild(el);
```

```
const el = React.createElement('a', {  
  href: 'https://www.google.com/',  
  style: {  
    fontSize: '2em'  
  }  
}, 'Google');  
ReactDOM.render(el, document.body);
```

JSX

```
const el = React.createElement('a', {  
  href: 'https://www.google.com/',  
  style: {  
    fontSize: '2em'  
  }  
}, 'Google');
```

```
const el = (  
  <a href='https://www.google.com/' style={{ fontSize: '2em' }}>  
    Google  
  </a>  
)
```

Components And Props

```
class MyComponent extends React.Component {  
  render() {  
    return (  
      <div>  
        <p>{this.props.name} ({this.props.age})</p>  
      </div>  
    );  
  }  
};  
ReactDOM.render(<MyComponent name="John" age={45} />, document.body);
```

JSX is NOT valid JavaScript

Browsers and other JS engines don't run JSX directly.

We use **Node.js** the **Babel Compiler**, to compile the JSX and create valid JS code.

Demo

```
scripts/08-components.jsx  
scripts/08-components.html
```

State

```
class MyComponent extends React.Component {  
  constructor(props) {  
    super(props);  
    this.state = { text: "Hello" };  
  }  
  render() {  
    return (  
      <div>  
        <p>{this.state.text}</p>  
      </div>  
    );  
  }  
};  
ReactDOM.render(<MyComponent />, document.body);  
  
this.setState({ text: "Bye" });
```

Reactivity

Changes to properties & state cause the component to re-render.

this.props

JSX, <SomeComponent prop1="hi" />

this.state

this.setState({ state1: "bye" })

Events

```
class MyComponent extends React.Component {  
  onClick() {  
    alert("test");  
  }  
  render() {  
    return (  
      <div>  
        <button onClick={this.onClick}>Test</button>  
      </div>  
    );  
  }  
};  
ReactDOM.render(<MyComponent />, document.body);
```


Demo

```
scripts/08-components.jsx  
scripts/08-components.html
```

TODO Application

What's Next?

- **Lifecycle Hooks**
- **Context**
- **Hooks:** a "new" way of creating components
- **Redux:** separate library to manage a global state
- **React Outside the Browser:** server side rendering, react-native, react-blessed, etc.
- ...

Q & A

Can React run on the Server?

ReactDOMServer (server-side rendering)

What about routing?

Next.js and friends...

And other platforms?

React Native (IOS, Android, UWP), Electron (Desktop)

Webinar Files

<https://github.com/goncalomb/talk-intro-nodejs-react>

With more examples and more slides.

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