React Component Approaches

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Agenda

React component creation approaches

Container vs Presentational Components

Four+ Ways to Create React Components?!

Ways to Create Components

- **createClass**

- **ES class**

- **Function**

- **Arrow function**

createClass Component

```
var HelloWorld = React.createClass({
  render: function () {
    return (
      <h1>Hello World</h1>
    );
  }
});
```

JS Class Component

```javascript
class HelloWorld extends React.Component {
  constructor(props) {
    super(props);
  }

  render() {
    return (
      <h1>Hello World</h1>
    );
  }
}
```

Function Component

```
function HelloWorld(props) {
  return (
    <h1>Hello World</h1>
  );
}
```

Arrow Function

```
const HelloWorld = (props) => <h1>Hello World</h1>
```

Function Component Benefits

Easier to understand

Avoid `this` keyword

Less transpiled code

High signal-to-noise ratio

Enhanced code completion / intellisense

Bloated components are obvious

Easy to test

Performance

Classes may be removed in future

BABEL

```
1  import React, { Component } from "react";
2
3  class Hi extends Component {
4    render() {
5      return (
6        <h1>hi</h1>
7      );
8    }
9  }
10
11 function HiFunc() {
12   return <h1>hi</h1>;
13 }
```

```
16
17 var Hi = function (_Component) {
18   _inherits(Hi, _Component);
19
20   function Hi() {
21     _classCallCheck(this, Hi);
22
23     return _possibleConstructorReturn(this,
   (Hi.__proto__ ||
   Object.getPrototypeOf(Hi)).apply(this, arguments));
24   }
25
26   _createClass(Hi, [{
27     key: "render",
28     value: function render() {
29       return _react2.default.createElement(
30         "h1",
31         null,
32         "hi"
33       );
34     }
35   }]);
36
37   return Hi;
38 }(_react.Component);
39
40 function HiFunc() {
41   return _react2.default.createElement(
42     "h1",
43     null,
44     "hi"
45   );
46 }
```

Class

Function

When Should I Use Each? Pre 16.8...

Class Component | **Function Components**

State | Everywhere else ☺

Refs

Lifecycle methods

When Should I Use Each? After 16.8…

Class Component | **Function Components**

componentDidError | Everywhere else ☺

getSnapshotBeforeUpdate

Prefer function components.

We'll use both classes and
functions with Hooks.

Container vs Presentation Components

Container	Presentation
Little to no markup	Nearly all markup
Pass data and actions down	Receive data and actions via props
Knows about Redux	Doesn't know about Redux
Often stateful	Often no state

Most components

Alternative Jargon

Container	Presentational
Smart	Dumb
Stateful	Stateless
Controller View	View

"When you notice that some components don't use props they receive but merely forward them down...it's a good time to introduce some container components."

Dan Abramov

Wrap up

createClass

ES Class

Function

Arrow Function

Container vs Presentation Components

Next up: Let's start building!