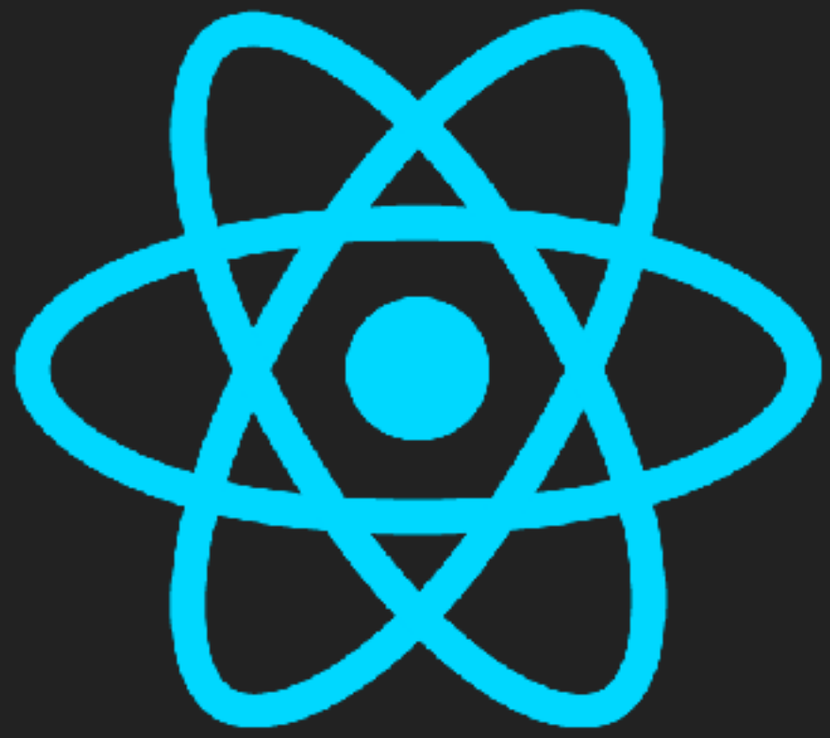


INTRODUCTION TO

REACT

AGENDA

- What is React?
- Components
- Syntax
- Virtual DOM
- React vs Angular
- Dev environment
  - Transpilers
  - Module bundlers
  - Loaders

WHAT IS REACT?

REACT IS:

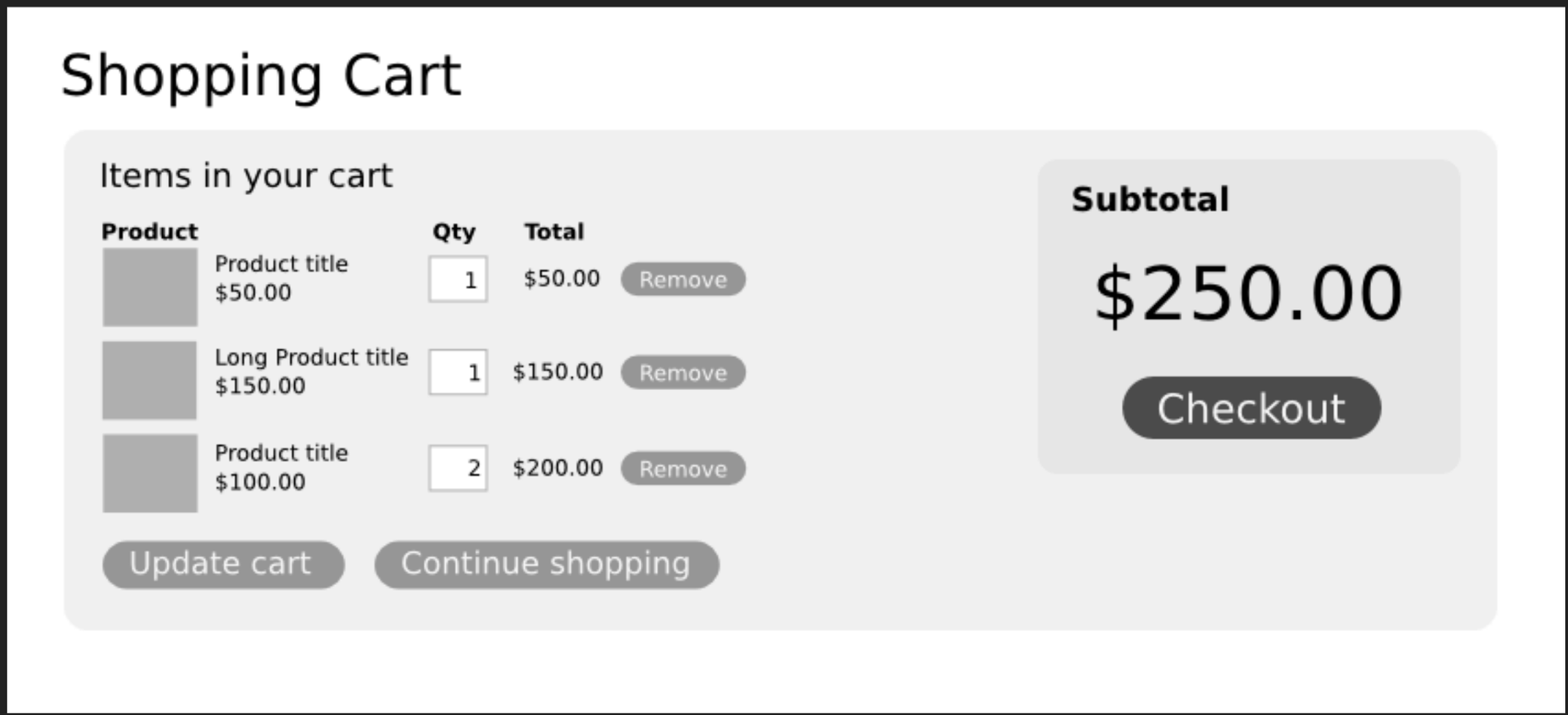
- Rendering library
- Architectural approach
- Ecosystem

REACT IS NOT:

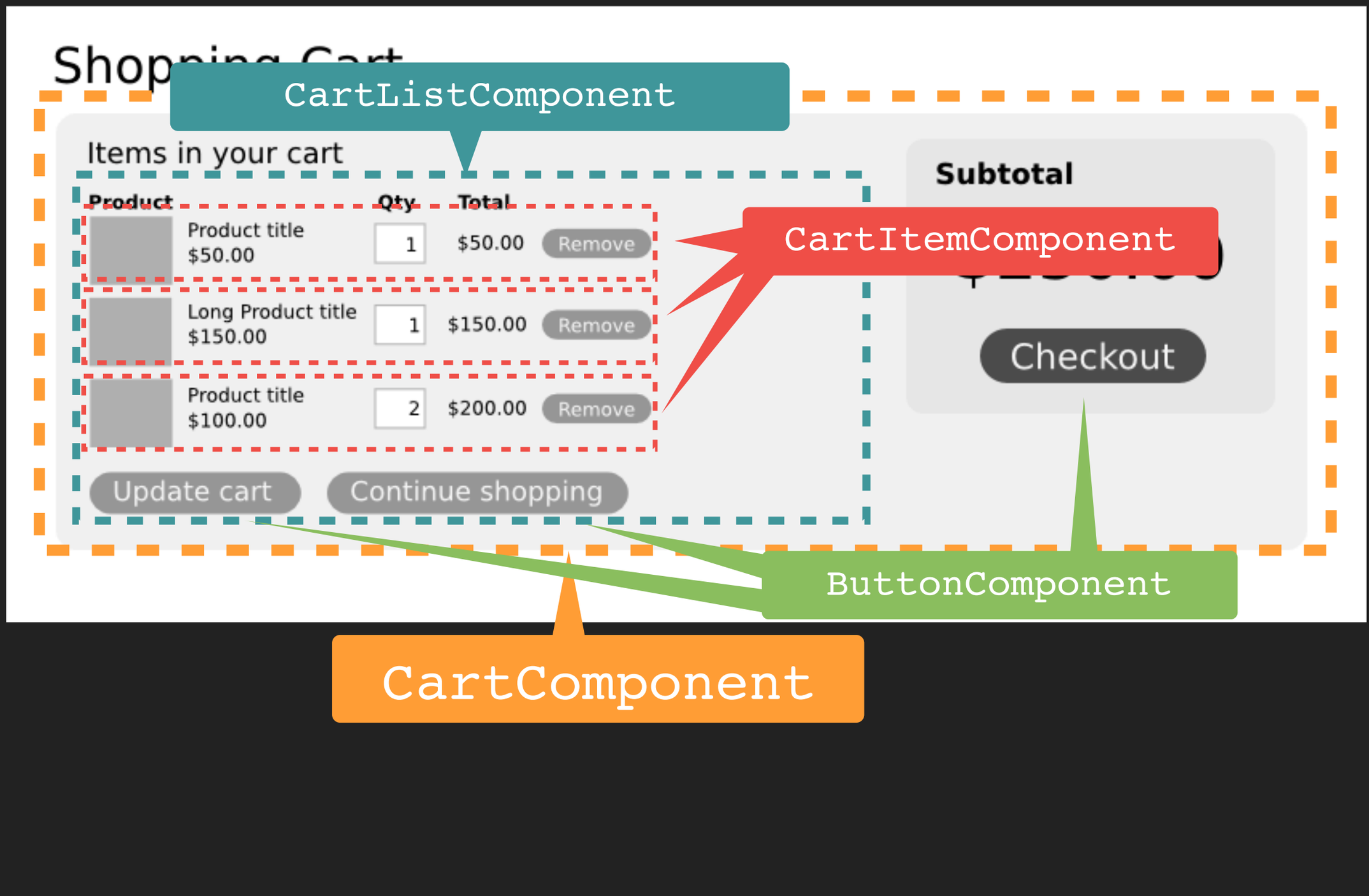
- SPA framework
- MV[whatever] approach
- Template language
- Any other concerns separation way

COMPONENTS

EVERYTHING IS A COMPONENT



EVERYTHING IS A COMPONENT



COMPONENT BASED PRINCIPLES

- isolated
- composable
- reusable
- maintainable
- testable

SYNTAX

FIRST IMPRESSION

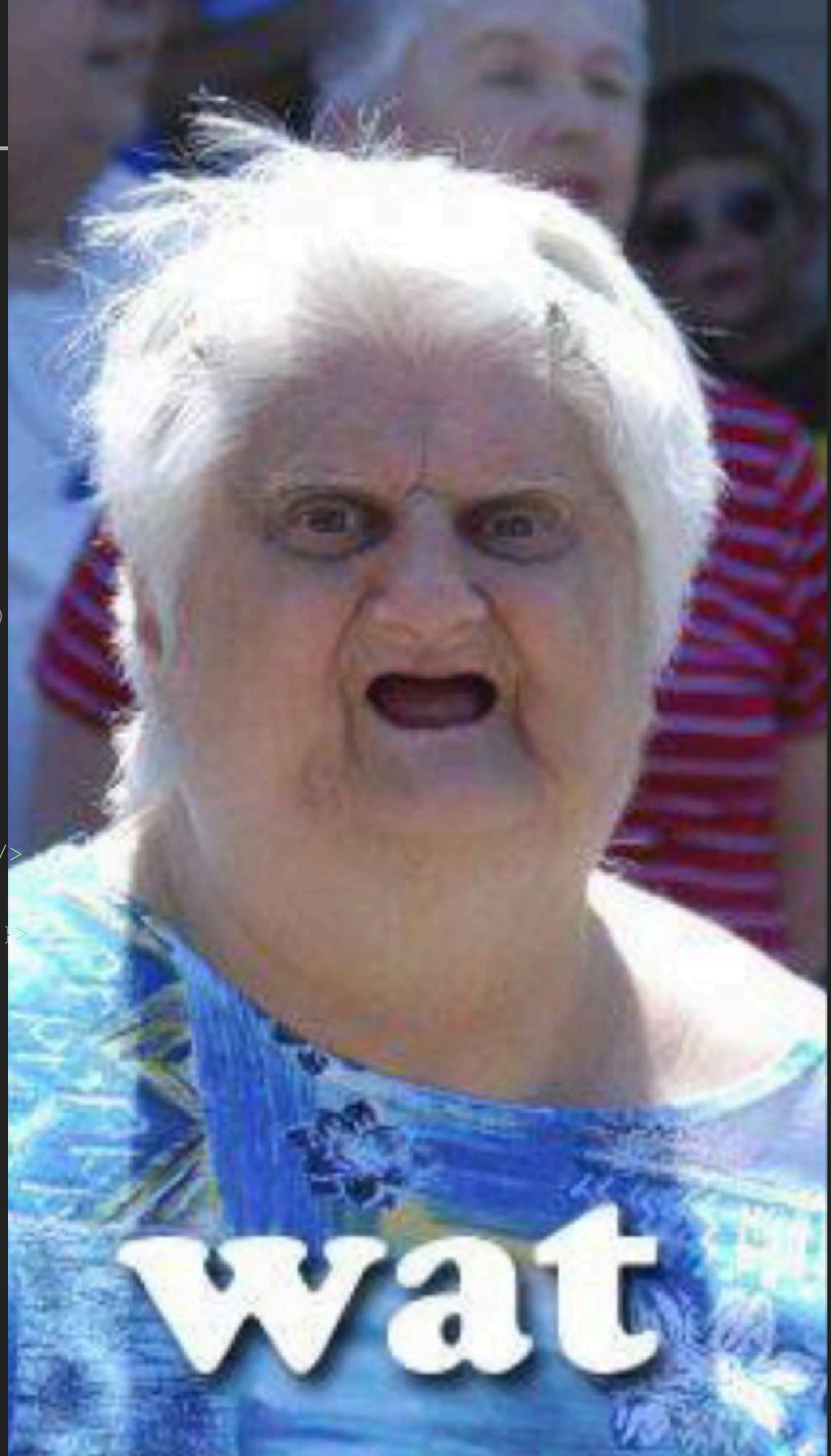
```
export
class AppLayout extends Component {
  constructor (props) {
    super(props);
    this.state = {drawerOpen: false};
  }

  toggleDrawer = () => this.setState({drawerOpen: !this.state.drawerOpen})
  closeDrawer  = () => this.setState({drawerOpen: false})

  render() {
    return (
      <MuiThemeProvider muiTheme={muiTheme}>
      <div>
        <AppBar title="Hotels Manager"
                onTouchTap={() => this.toggleDrawer()}
                iconClassNameRight="muidocs-icon-navigation-expand-more" />

        <Drawer open={this.state.drawerOpen} docked={false}
                onRequestChange={drawerOpen => this.setState({drawerOpen})}>
          {Object.keys(MENU).map(url =>
            <Link to={url} key={url}>
              <MenuItem onTouchTap={() => this.closeDrawer()}>
                {MENU[url]}
              </MenuItem>
            </Link>
          )}
        </Drawer>

        {this.props.children}
        <SnackMessage />
      </div>
      </MuiThemeProvider>
    );
  }
}
```



HELLO WORLD COMPONENT

```
import React, { Component } from 'react';

export
class HelloComponent extends Component {
   render() {
      return (
         <h1>Hello World!</h1>
      );
   }
}
```

REACT CLASSES

```
<MyButton color="blue" shadowSize={2}>
  Click Me
</MyButton>
```

```
// compiled to:

React.createElement(
  MyButton,
  {color: 'blue', shadowSize: 2},
  'Click Me'
)
```

STANDARD ELEMENTS

```
<div className="sidebar" />

// compiled to:

React.createElement(
   'div',
   {className: 'sidebar'},
   null
)
```

REACT VS ANGULAR

APPROACH DIFFERENCE

- Virtual DOM
- Unidirectional flow
- Self-contained components
- Language extension (JSX)
- Lego approach

VIRTUAL DOM IS:

- JavaScript in-memory DOM representation
- render() is invoked if anything changed
- React matches new state with the previous one
- Final changes are only rendered

REFERENCE

- Why React is awesome - presentation