2강. 컴포넌트 스타일링,
프로젝트 만들기.

컴포넌트 스타일링

일반 CSS

```css
.App {
  text-align: center;
}

.App-logo {
  animation: App-logo-spin infinite 20s linear;
  height: 80px;
}

.App-header {
  background-color: #222;
  height: 150px;
  padding: 20px;
  color: white;
}

.App-intro {
  font-size: large;
}

@keyframes App-logo-spin {
  from { transform: rotate(0deg); }
  to { transform: rotate(360deg); }
}
```

```jsx
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>Welcome to React</h2>
        </div>
        <p className="App-intro">
          To get started, edit <code>src/App.js</code> and save to reload.
        </p>
      </div>
    );
  }
}

export default App;
```

단점: 클래스명이 **중첩될 가능성**이 있습니다

```
.App-header
.App-intro
```

```
.app .header
.app .intro .contents .title
```

다른 솔루션들..

CSS Module
SASS, LESS, Stylus …
CSS in JS

CSS Module

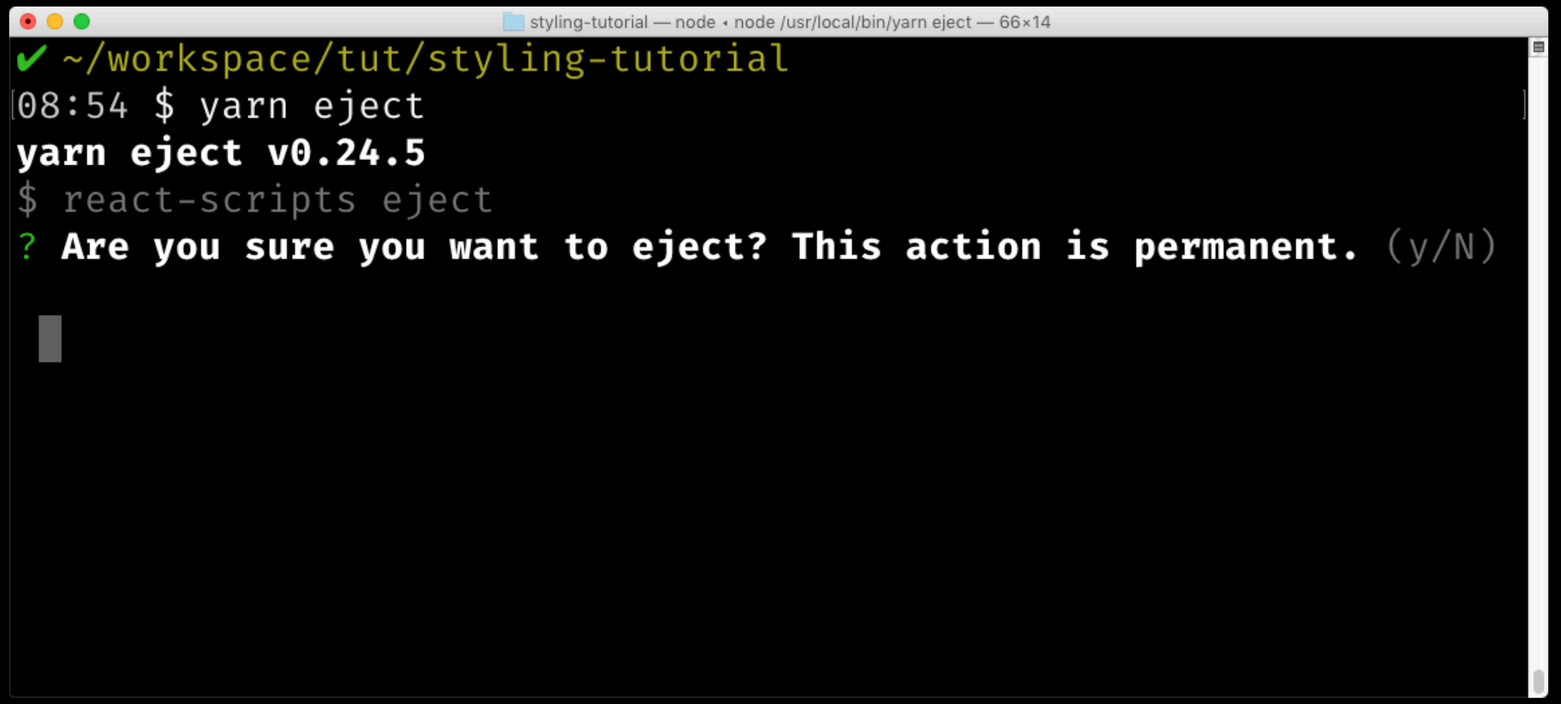
CSS 파일을 불러온 **컴포넌트 내부**에서만 작동합니다

```
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>Welcome to React</h2>
        </div>
        <p className="App-intro">
          To get started, edit <code>src/App.js</code> and save to reload.
        </p>
      </div>
    );
  }
}

export default App;
```

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

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

프로젝트 생성

$ create-react-app css-module-tutorial



프로젝트 기본설정을 할 땐 **eject**:
babel, webpack 설정파일들을 프로젝트 루트 디렉토리로 꺼내줍니다

Webpack 설정 변경

config/webpack.config.dev.js

before

```
{
  loader: require.resolve('css-loader'),
  options: {
    importLoaders: 1,
  },
},
```

after

```
{
  loader: require.resolve('css-loader'),
  options: {
    importLoaders: 1,
    modules: true,
    localIndentName: '[name]__[local]___[hash:base64:5]'
  },
}
```

Webpack 설정 변경

config/webpack.config.prod.js

before

```
{
  loader: require.resolve('css-loader'),
  options: {
    importLoaders: 1,
    minimize: true,
    sourceMap: true,
  },
}
```

after

```
{
  loader: require.resolve('css-loader'),
  options: {
    importLoaders: 1,
    modules: true,
    localIndentName: '[name]__[local]___[hash:base64:5]',
    minimize: true,
    sourceMap: true,
  },
},
```

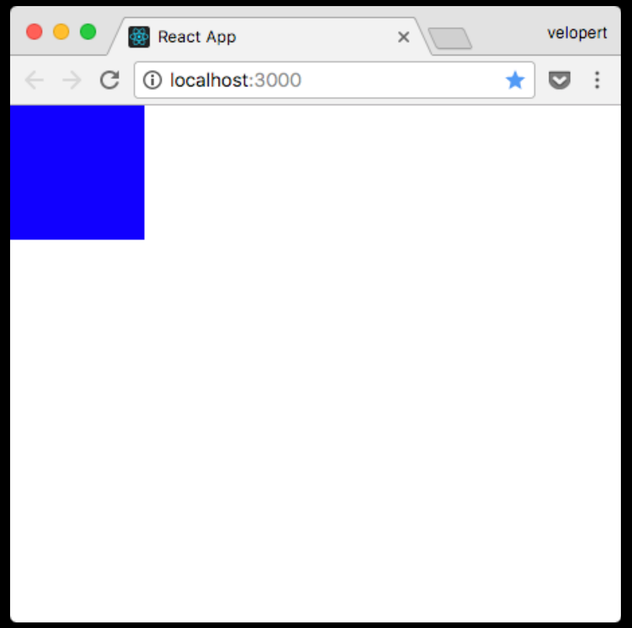
$ yarn start

src/App.css

```
.blueBox {
  width: 100px;
  height: 100px;
  background: blue;
}
```

src/App.js

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

class App extends Component {
  render() {
    return (
      <div className={style.blueBox}>
      </div>
    );
  }
}

export default App;
```


React App
velopert
localhost:3000

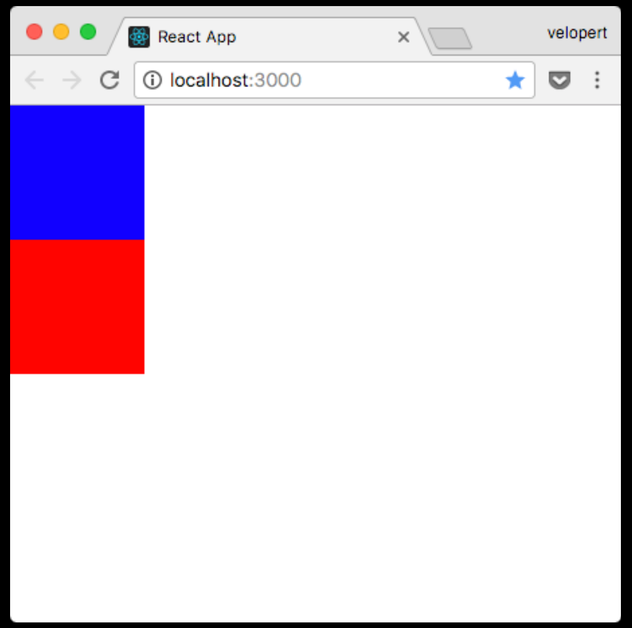
글로벌 스타일?

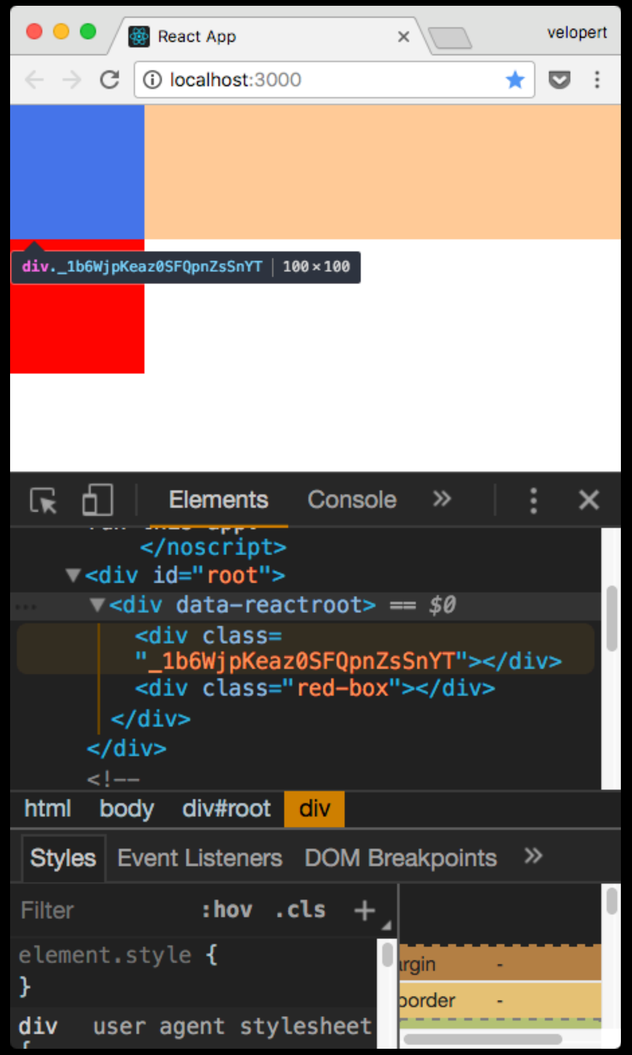
src/App.css

```
.blueBox {
  width: 100px;
  height: 100px;
  background: blue;
}

:global .red-box {
  width: 100px;
  height: 100px;
  background: red;
}
```

src/App.js

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

class App extends Component {
  render() {
    return (
      <div>
        <div className={style.blueBox}>
        </div>
        <div className="red-box"></div>
      </div>
    );
  }
}

export default App;
```


React App
velopert
localhost:3000


React App
velopert
localhost:3000
div._1b6WjpKeaz0SFQpnZsSnYT | 100×100
Elements
Console
</noscript>

<div data-reactroot> == $0

<!--
html
body
div#root
div
Styles
Event Listeners
DOM Breakpoints
Filter
:hov
.cls
element.style {
}
div user agent stylesheet

여러개의 클래스를 적용해야할때

src/App.css

```
.blueBox {
  width: 100px;
  height: 100px;
  background: blue;
}

.whiteText {
  color: white;
}

:global .red-box {
  width: 100px;
  height: 100px;
  background: red;
}
```

src/App.js

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

class App extends Component {
  render() {
    return (
      <div>
        <div className={`${style.blueBox} ${style.whiteText}`}>
          Hi
        </div>
        <div className="red-box"></div>
      </div>
    );
  }
}

export default App;
```

$ yarn add classnames

```
classNames('foo', 'bar'); // ⇒ 'foo bar'
```

```
classNames(style.blueBox, style.whiteText);
```

```
import React, { Component } from 'react';
import style from './App.css';
import classNames from 'classnames';

class App extends Component {
  render() {
    return (
      <div>
        <div className={classNames(style.blueBox, style.whiteText)}>
          Hi
        </div>
        <div className="red-box"></div>
      </div>
    );
  }
}

export default App;
```

styles. 생략하기

```
import React, { Component } from 'react';
import style from './App.css';
import classNames from 'classnames/bind';

const cx = classNames.bind(style);

class App extends Component {
  render() {
    return (
      <div>
        <div className={cx('blueBox', 'whiteText')}>
          Hi
        </div>
        <div className="red-box"></div>
      </div>
    );
  }
}

export default App;
```

조건부 스타일을 준다면..

```
<div className={cx({
      blueBox: true,
      whiteText: true
})}>
```

```
<div className={cx('blueBox', true && 'whiteText')}>
```

```
<div className={cx([‘blueBox', true && ‘whiteText’])}>
```

특정 CSS 상속하기

```
.blueBoxChild {
  composes: blueBox;
  border: 3px solid black;
}
```

```
.otherClassName {
  composes: className from "./style.css";
}
```

아쉬운 점:

SASS 나 LESS 처럼, function, mixin, variable 등의 기능이 없다.

SASS 를 사용해보자!

SASS 한눈에 보기 - https://velopert.com/1712

```
$ yarn add sass-loader node-sass
```

webpack.config.dev.js

```
/* 주의: file-loader 전에 넣어야함 */
{
  test: /\.scss$/,
  use: [
    require.resolve('style-loader'),
    /*  ... 생략; CSS 로더 부분과 동일하게 복붙 */
    {
        loader: require.resolve('sass-loader')
    }
  ],
}
```

App.scss

webpack.config.prod.js

동일하게 작업해주세요.

src/styles/lib/_mixins.scss

```scss
@mixin box_shadow ($level) {

    @if $level == 1 {
        box-shadow: 0 1px 3px rgba(0,0,0,0.12), 0 1px 2px rgba(0,0,0,0.24);
    } @else if $level == 2 {
        box-shadow: 0 3px 6px rgba(0,0,0,0.16), 0 3px 6px rgba(0,0,0,0.23);
    } @else if $level == 3 {
        box-shadow: 0 10px 20px rgba(0,0,0,0.19), 0 6px 6px rgba(0,0,0,0.23);
    } @else if $level == 4 {
        box-shadow: 0 14px 28px rgba(0,0,0,0.25), 0 10px 10px rgba(0,0,0,0.22);
    } @else if $level == 5 {
        box-shadow: 0 19px 38px rgba(0,0,0,0.30), 0 15px 12px rgba(0,0,0,0.22);
    }

}
```

https://gist.github.com/vlpt-playground/c4d3f4558ba21d6949905a035502dde7

src/styles/lib/_variables.scss

```
$multiplier: 10px;
```

src/styles/lib/_all.scss

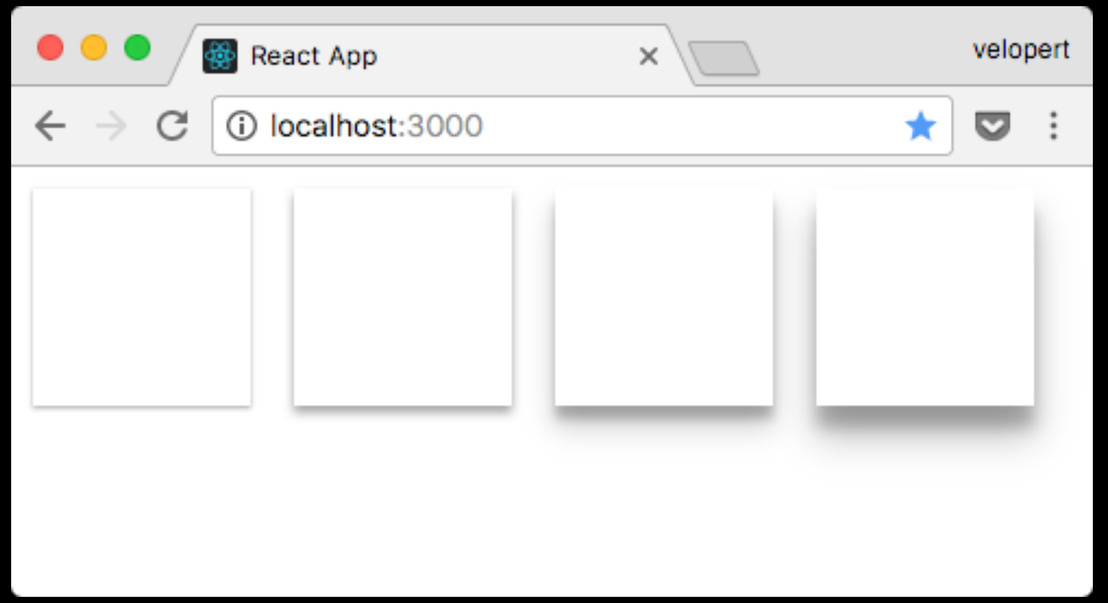
```
@import 'mixins';
@import 'variables';
```

src/App.scss

```
@import ‘./styles/lib/all';

.card {
    width: $multiplier * 10;
    height: $multiplier * 10;
    margin: $multiplier;
}

.one {
    @include box_shadow(1);
}

.two {
    @include box_shadow(2);
}

.three {
    @include box_shadow(3);
}

.four {
    @include box_shadow(4);
}
```

src/App.js

```
import React, { Component } from 'react';
import style from ‘./_App.scss’;
import classNames from 'classnames/bind';

const cx = classNames.bind(style);

class App extends Component {
  render() {
    return (
      <div>
        <div className={cx('card', 'one')}/>
        <div className={cx('card', 'two')}/>
        <div className={cx('card', 'three')}/>
        <div className={cx('card', 'four')}/>
      </div>
    );
  }
}

export default App;
```


React App
velopert
localhost:3000

$ yarn add open-color

https://yeun.github.io/open-color/

src/styles/lib/_all.scss

```
@import '~open-color/open-color';
@import 'mixins';
@import 'variables';
```

~/ 는 node_modules/ 내부 디렉토리

src/_App.scss

```scss
@import './styles/lib/all';

.card {
    display: inline-block;
    width: $multiplier * 10;
    height: $multiplier * 10;
    margin: $multiplier;
}

.one {
    @include box_shadow(1);
    background: $oc-red-6;
}

.two {
    @include box_shadow(2);
    background: $oc-orange-6;
}

.three {
    @include box_shadow(3);
    background: $oc-yellow-6;
}

.four {
    @include box_shadow(4);
    background: $oc-green-6;
}
```

태그에 해당되는 스타일은 **글로벌로** 설정 가능.

src/styles/base/_reset.scss

```scss
html, body {
    background: $oc-gray-4;
    font-family: 'Noto Sans KR', 'NanumGothic', sans-serif;
    margin: 0;
}
```

src/styles/base/_typography.scss

```scss
@import url(https://fonts.googleapis.com/earlyaccess/notosanskr.css);

h1 {
    font-size: 4rem;
}

h2 {
    font-size: 3rem;
}
```

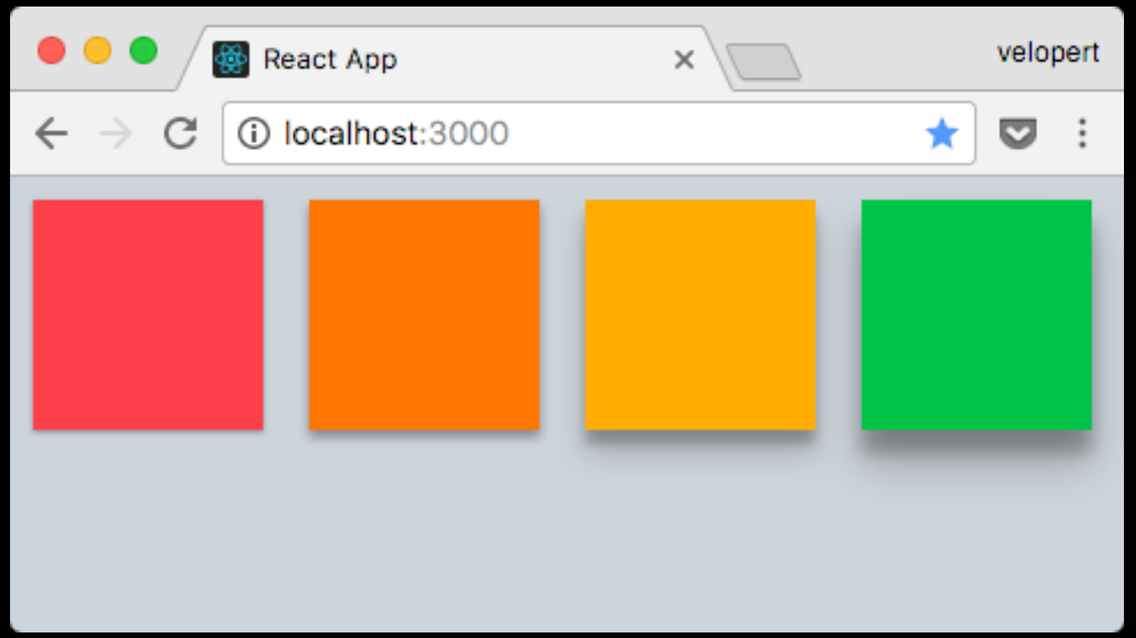
src/styles/lib/_all.scss

```
@import 'typography';
@import 'reset';
```

src/styles/main.scss

```
@import '~open-color/open-color';
@import './base/all';
```

```
import React from 'react';
import ReactDOM from 'react-dom';
import App from './App';
import registerServiceWorker from './registerServiceWorker';
import './styles/main.scss';

ReactDOM.render(<App />, document.getElementById('root'));
registerServiceWorker();
```


React App
velopert
localhost:3000

global 클래스

```
:global {
    .something {
        background: black;
    }
    .global {
        background: blue;
    }
}
```

스타일 디렉토리 구조를 어떻게해야할까?

딱히 정해진 방법은 없습니다

1) CSS Module 을 사용하지 않고, 모든걸 일반 Sass 로만 관리:
https://github.com/velopert/develoxy/tree/master/develoxy-frontend/src/styles

2) CSS Module + Sass
https://github.com/velopert/bitimulate/tree/master/bitimulate-frontend/src/components/atoms

3) 자신이 편하다고 생각하는 구조..

읽어보면 좋은 글:

http://www.webactually.co.kr/archives/13106

SCSS 사용 할 때 강추 라이브러리

http://include-media.com/

반응형 디자인을 굉장히 간편하게 해준다.

CSS in JS

https://github.com/MicheleBertoli/css-in-js

styled-components

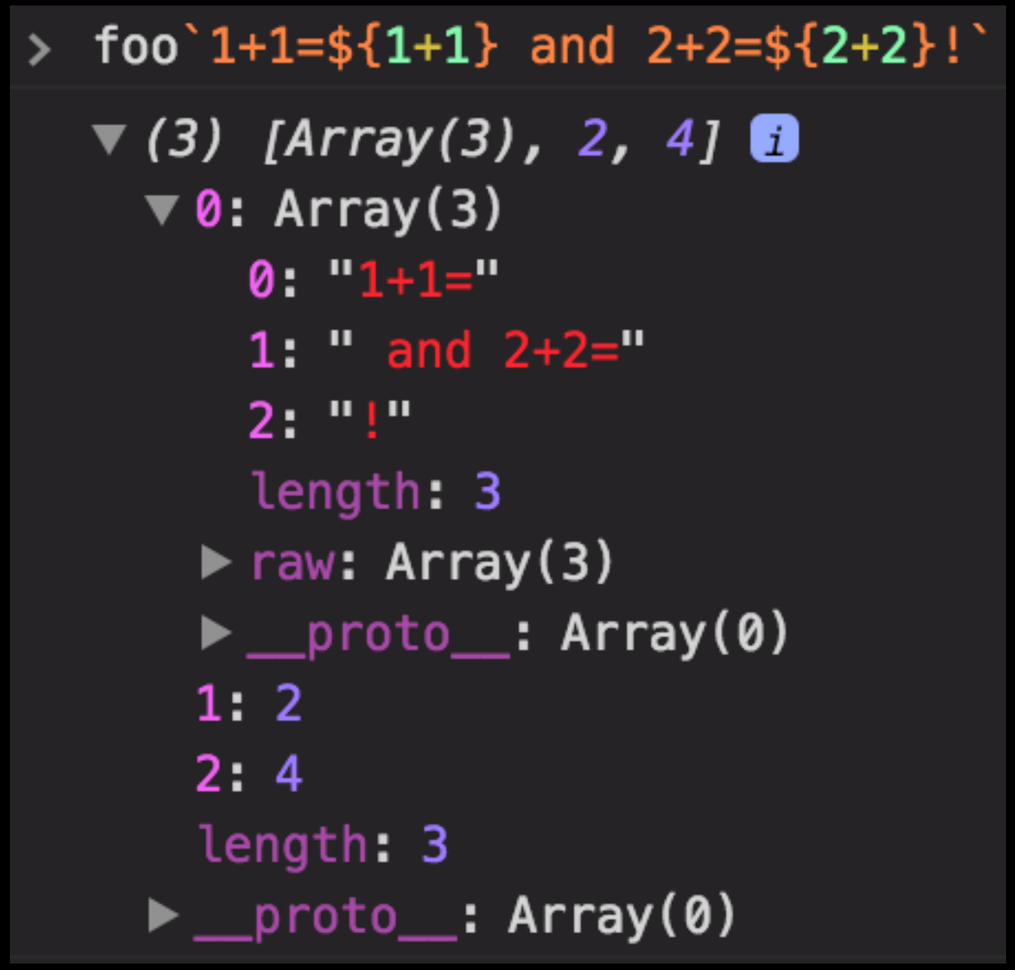
```
import React from 'react';

import styled from 'styled-components';

const Title = styled.h1`
  font-size: 1.5em;
  text-align: center;
  color: palevioletred;
`;

const Wrapper = styled.section`
  padding: 4em;
  background: papayawhip;
`;
```

```
<Wrapper>
  <Title>안녕하세요</Title>
</Wrapper>
```

```
foo`...`
```

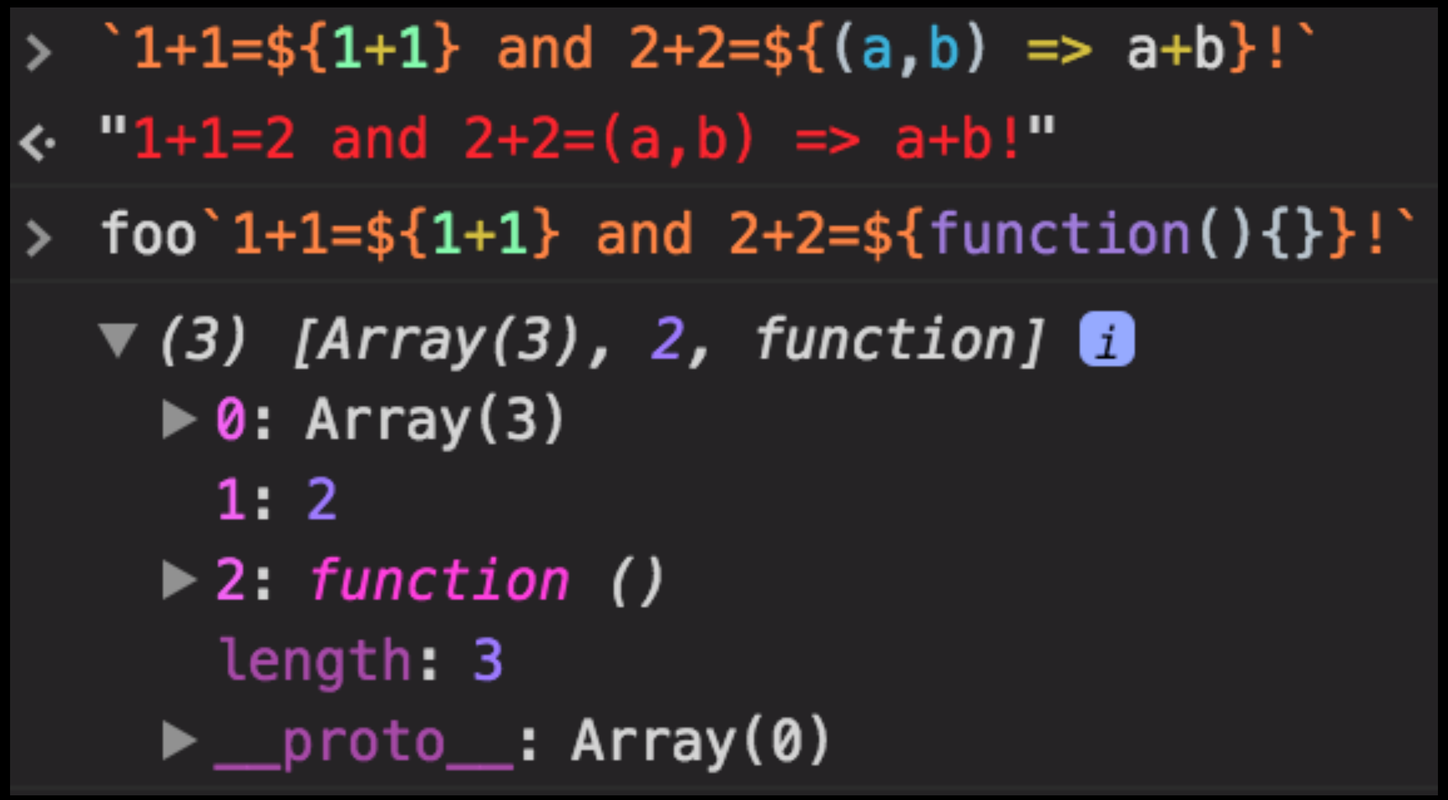
https://developer.mozilla.org/ko/docs/Web/JavaScript/Reference/Template_literals

```
function foo( ... args) {
  console.log(args);
}
```


> foo`1+1=${1+1} and 2+2=${2+2}!`
▼ (3) [Array(3), 2, 4]
▼ 0: Array(3)
0: "1+1="
1: " and 2+2="
2: "!"
length: 3
▶ raw: Array(3)
▶ __proto__: Array(0)
1: 2
2: 4
length: 3
▶ __proto__: Array(0)

왜?

```
styled.div`
  color: tomato;
  ${ props ⇒ props.background}
`
```


`1+1=${1+1} and 2+2=${(a,b) => a+b}!`
"1+1=2 and 2+2=(a,b) => a+b!"
foo`1+1=${1+1} and 2+2=${function(){}}!`
(3) [Array(3), 2, function]
0: Array(3)
1: 2
2: function ()
length: 3
__proto__: Array(0)

CSS 가 JS 안에!

→ 더욱 깔끔해지는 프로젝트 디렉토리 구조
파일을 왔다 갔다 할 필요가 없다. 👍

→ CSS 에서 `props` 에 접근 할 수 있다!

→ 자바스크립트와 CSS 의 경계가 허물어짐

스타일시트가 브라우저에서 만들어지기 때문에 **미세한 성능** 저하

디자이너가 HTML/CSS 작업을 따로 해줄때는,
프로세스가 조금 달라지기 때문에 복잡해질지도

자동완성이 안됨