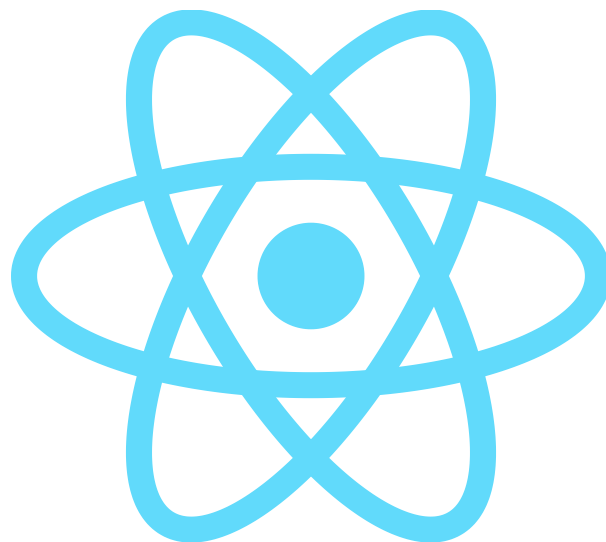


# Programowanie App Internetowych

React



# React

## Benefits:

- JSX - JSX is a syntax extension to JavaScript with react;
- Virtual Document Object Model (DOM)
- Performance - There are several ways to speed up the react application by using virtual DOM because it reduces the re-render time;
- One-way data-binding - Information flows in one direction.

# JSX

From [react.dev](https://react.dev):

```
function MyButton() {  
  return (  
    <button>I'm a button</button>  
  );  
}
```

# Components

```
function MyButton() {  
  return (<button>I'm a button</button>);  
}  
  
const app = document.getElementById('app');  
ReactDOM.render(<><h1>Develop. Preview. Ship. 🚀 </h1><MyButton /></>, app);
```

# props

```
function MyButton(props) {  
  return (<button>I'm a {props.what}</button>);  
}
```

```
ReactDOM.render(<MyButton what="Login Button" />, app);
```

# JSX - styling

```
function MyButton() {  
  return (<button>I'm a button</button>);  
}  
  
var front_color = 'red'  
  
const app = document.getElementById('app');  
ReactDOM.render(<>  
  <h1 style={{color: front_color }}>Develop. Preview. Ship. 🚀 </h1>  
  <MyButton />  
</>, app);
```

# Responding to events

```
function MyButton() {  
  function handleClick() {  
    alert('You clicked me!');  
  }  
  
  return (  
    <button onClick={handleClick}>  
      Click me  
    </button>  
  );  
}
```

# State

```
function MyButton() {  
  const [count, setCount] = useState(0);  
  
  function handleClick() {  
    setCount(count + 1);  
  }  
  
  return (  
    <button onClick={handleClick}>  
      Clicked {count} times  
    </button>  
  );  
}
```

`useState` - built-in Hook



# State

How would you implement sharing the data between state between components?

# Hooks

- see [API reference on built-in React Hooks](#),
- notice: reducer pattern.

# React

- Redux - predictable state container for JS Apps;
- [React with Redux](#).

**NEXT.js**

# Next.js

- backend framework which is based on React
- Client Side Rendering vs Server Side Rendering
- Sponsored by Vercel

# Next.js

Popular combination with:

- TypeScript;
- [Tailwind](#) do styli;
- [Prisma](#) do baz danych.

# Next.js

Wrócimy w czasie ćwiczeń.

**Dziękuję**