

# Intro to ReactJS & Components

What is React, JSX, Overview and Syntax,  
Components



**SoftUni Team**  
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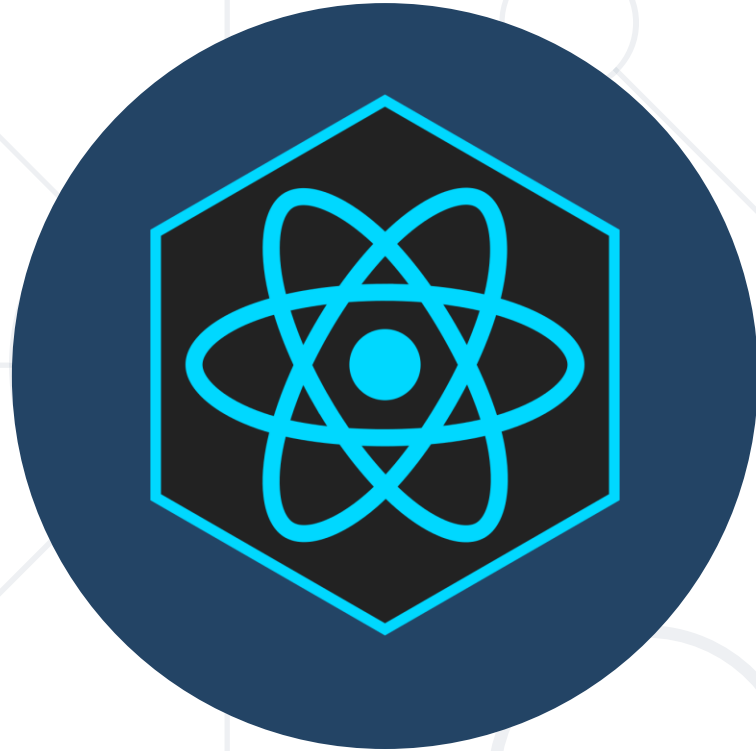
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sli.do

**#js-front-end**



# **React Overview**

## History and Philosophy

# What is React.js?

- **React** is a JavaScript library for building **user interfaces** (UI)
- Focused on creating **reusable components**
- Developed by **Facebook**

```
const HelloMessage = (props) => (  
  <div>Hello {props.name}</div>  
)  
ReactDOM.render(  
  <HelloMessage name="Maria" />,  
  document.getElementById('root')  
)
```

- Open-source
- Declarative
  - Design **simple** views for each **state** in your app
  - Easier to **debug**
- Component-Based
  - Encapsulated **components** that manage their **own** state
  - Keep **state** out of the **DOM**



# React Installation

Packages, Setup, Structure

- Less to learn - **instant reloads** help you focus on development
- Only one dependency - no complicated version mismatches
- No Lock-In - under the hood **Webpack, Babel, ESLint**
- Install the React app creator (one-time global install)



# Install and Run the React App Creator

- Run the React app creator

```
npx create-react-app my-app
```

- Starts your React app from the command line

```
cd my-app
```

```
npm start
```

- Browse your app from <http://localhost:3000>

- Visit the **official website**

<https://reactjs.org/>

- Documentation

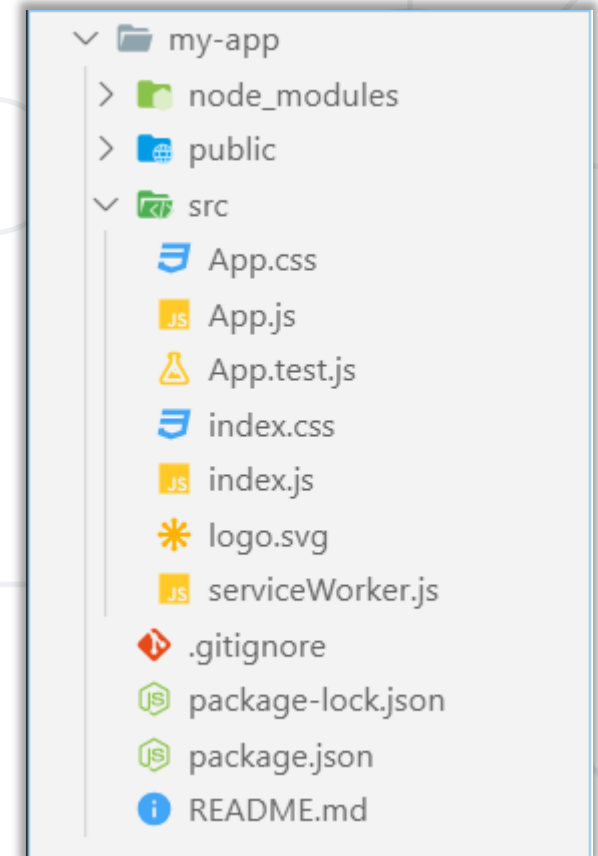
<https://reactjs.org/docs/installation.html>

- Online sandbox

<https://codesandbox.io/>

# React App Structure

- **package.json** - project configuration
  - Module name, dependencies, build actions
- **index.html**
  - App main HTML file
- **index.js**
  - App main JS file (startup script)
- **App.js, App.css, App.test.js**
  - React component "**App**"





**Live Demo**



# JSX Syntax

Overview, Syntax, Advantages

```
<div className="red">Children Text</div>
```

```
<MyCounter count={3 + 5} />
```

Expression

```
let gameScores = {  
  player1: 2,  
  player2: 5  
};
```

Custom component

```
<DashboardUnit index="2" onClick={() => {}}>  
  <h1>Scores</h1>  
  <Scoreboard className="results" scores={gameScores} />  
</DashboardUnit>
```

Pass variable as prop



**Live Demo**



# Components Overview

Syntax, Functional and Class Components



# Components Overview

- Components let you
  - Split the UI into **independent** and **reusable pieces**
  - Think about **isolation**
- React let you define components as
  - **Functions**



- **Functional component** is a JS function which
  - Accepts single argument called **props** (object with data)
  - Returns a **React Element**

```
function Person(props){  
  return <div>My name is {props.name}</div>  
}
```

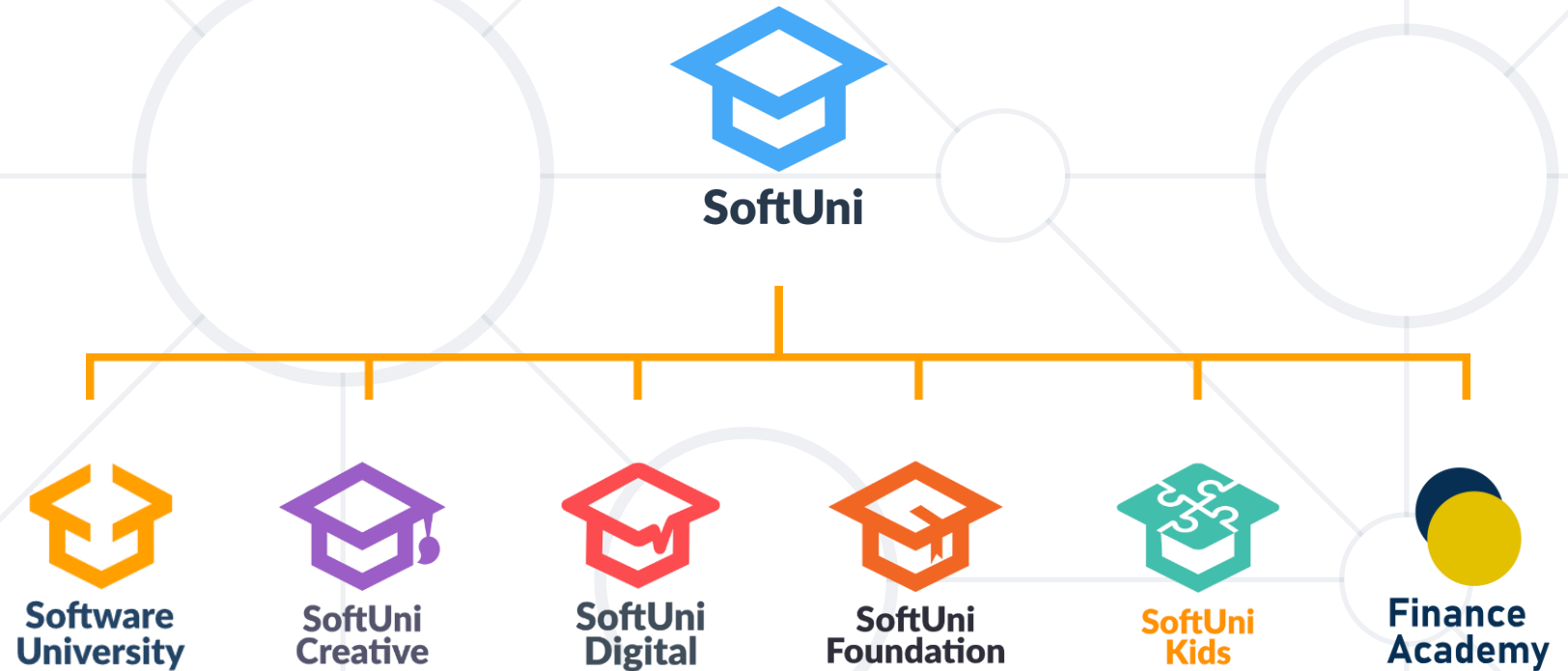
- Names always start with **UpperCase**
- Tags always must be **closed**
- **Information** is passed via **props**

```
<Dropdown> A dropdown list  
  <UserHead name="homeHeader" />  
  <Menu>  
    <MenuItem>Do Something</MenuItem>  
    <MenuItem>Do Something Fun!</MenuItem>  
  </Menu>  
</Dropdown>
```



# **Shopping Cart Workshop**

# Questions?



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Решения за твоето утре

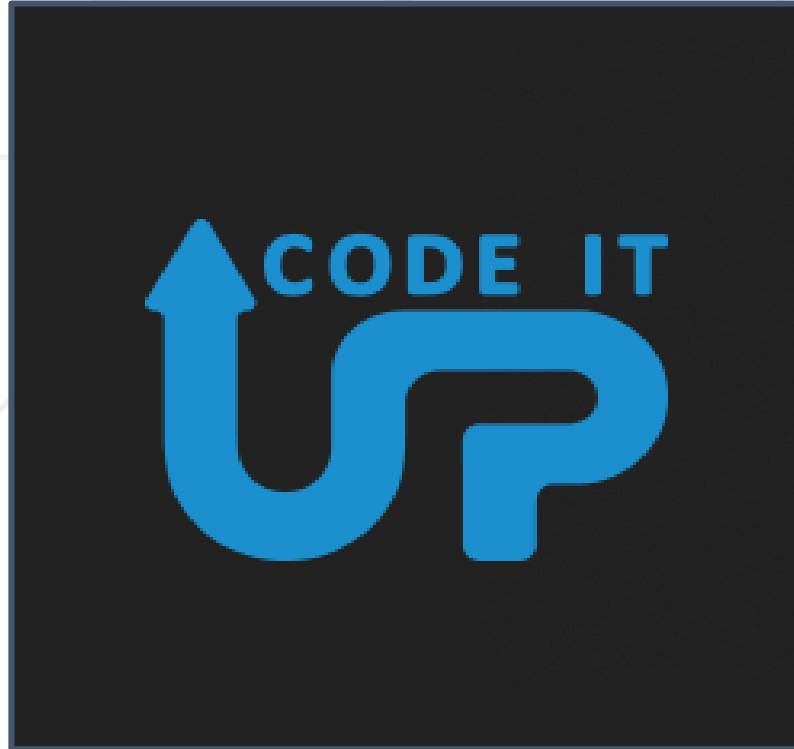


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