



# ► Software Structure

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Lecture 4

## *Outline*

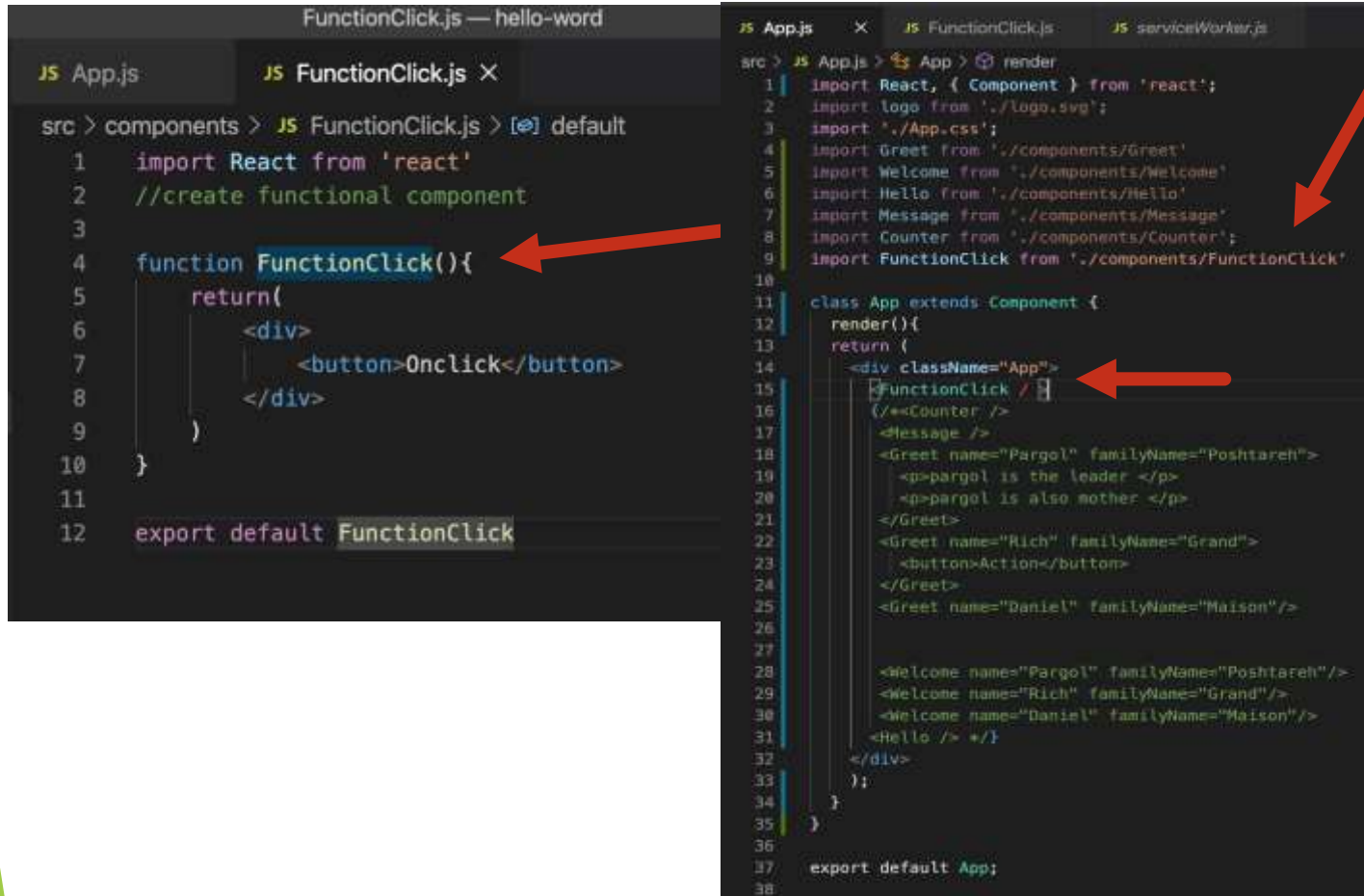
- Events and Event handling
- Forms
- Styling

# Event Handling:

## 1 ) Functional Component :

Create file inside components folder and name it FunctionClick.js

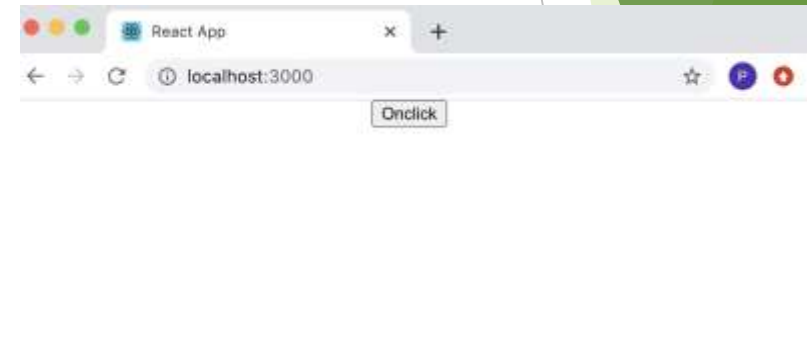
Create functional component inside of it and add button



The image shows a code editor with two files open: `FunctionClick.js` and `App.js`. In `FunctionClick.js`, a functional component `FunctionClick` is defined, which returns a `<div>` containing a `<button>Onclick</button>`. In `App.js`, the `FunctionClick` component is imported and used within the `render` method of the `App` class, wrapped in a `<div className="App">` container. Red arrows point from the text instructions to the corresponding code lines in the editor.

```
FunctionClick.js — hello-word
JS App.js
src > components > JS FunctionClick.js > default
1  import React from 'react'
2  //create functional component
3
4  function FunctionClick(){
5      return(
6          <div>
7              <button>Onclick</button>
8          </div>
9      )
10 }
11
12 export default FunctionClick

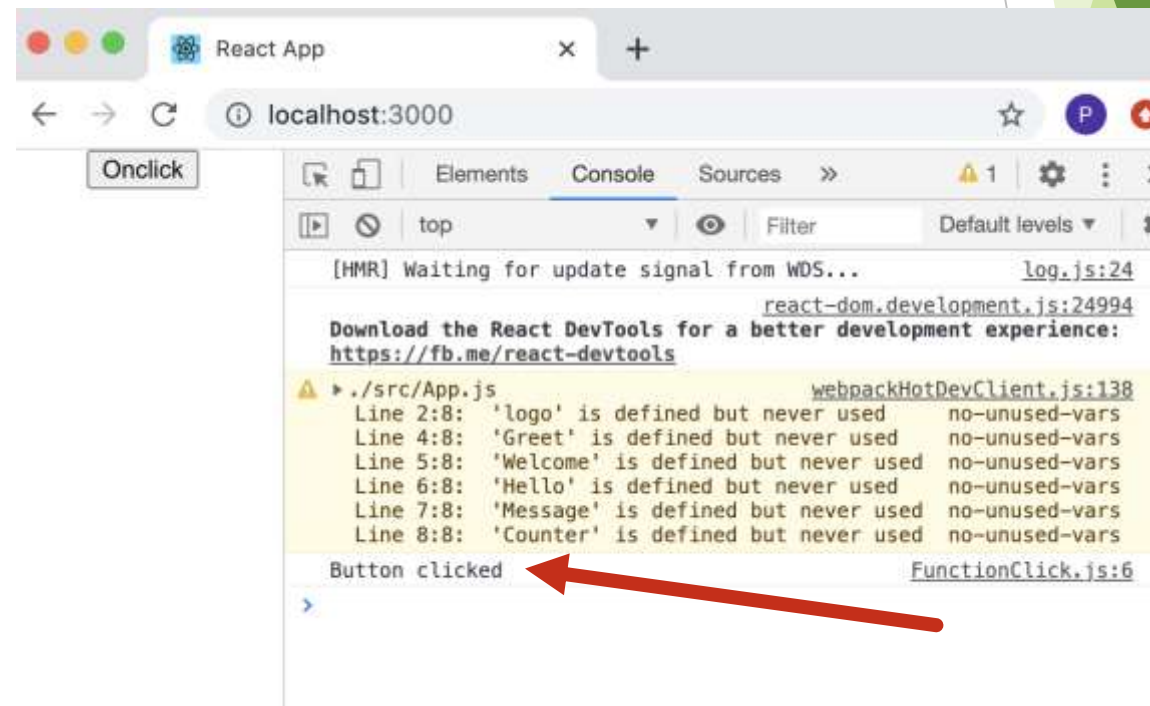
JS App.js
src > JS App.js > App > render
1  import React, { Component } from 'react';
2  import logo from './Logo.svg';
3  import './App.css';
4  import Greet from './components/Greet';
5  import Welcome from './components/Welcome';
6  import Hello from './components/Hello';
7  import Message from './components/Message';
8  import Counter from './components/Counter';
9  import FunctionClick from './components/FunctionClick';
10
11 class App extends Component {
12     render(){
13         return (
14             <div className="App">
15                 <FunctionClick />
16                 <Counter />
17                 <Message />
18                 <Greet name="Pargol" familyName="Poshtareh">
19                     <p>pargol is the leader </p>
20                     <p>pargol is also mother </p>
21                 </Greet>
22                 <Greet name="Rich" familyName="Grand">
23                     <button>Action</button>
24                 </Greet>
25                 <Greet name="Daniel" familyName="Maison"/>
26
27                 <Welcome name="Pargol" familyName="Poshtareh"/>
28                 <Welcome name="Rich" familyName="Grand"/>
29                 <Welcome name="Daniel" familyName="Maison"/>
30                 <Hello />
31             </div>
32         );
33     }
34 }
35
36 export default App;
```



Now lets capture this click and run some basic codes:

```
FunctionClick.js — hello-word
JS App.js JS FunctionClick.js X
src > components > JS FunctionClick.js > [e] default
1 import React from 'react'
2 //create functional component
3
4 function FunctionClick(){
5   function clickHandler(){
6     console.log('Button clicked')
7   }
8 }
9 return(
10   <div>
11     <button onClick={clickHandler}>Onclick</button>
12   </div>
13 )
14 }
15
16 export default FunctionClick
```

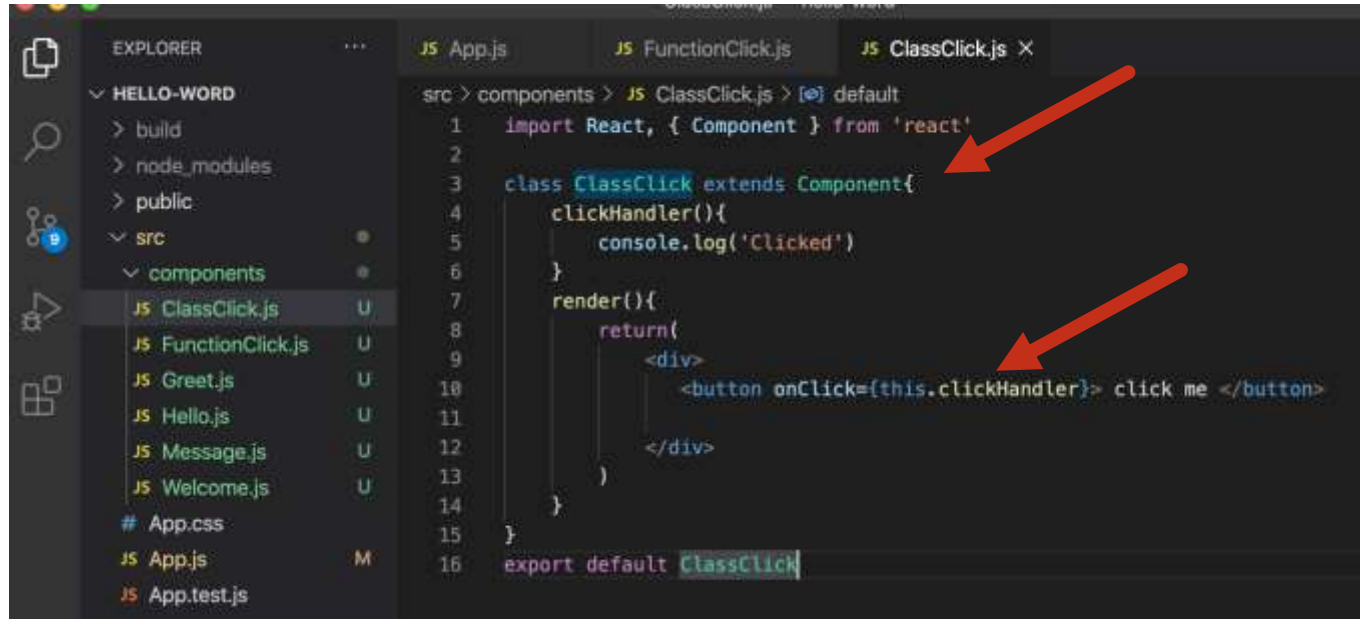
We are creating the FunctionClick



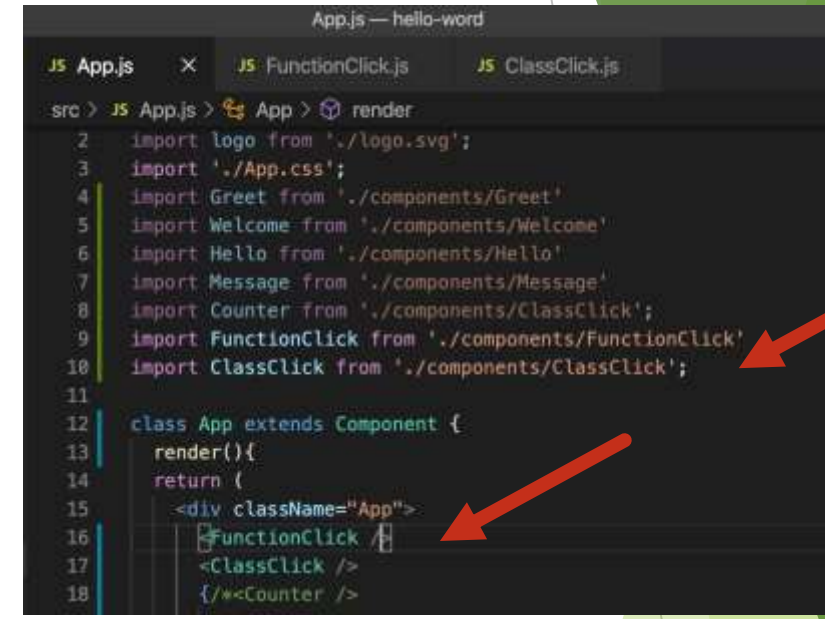
## 2 ) Class Component :

Create file inside components folder and name it ClassClick.js

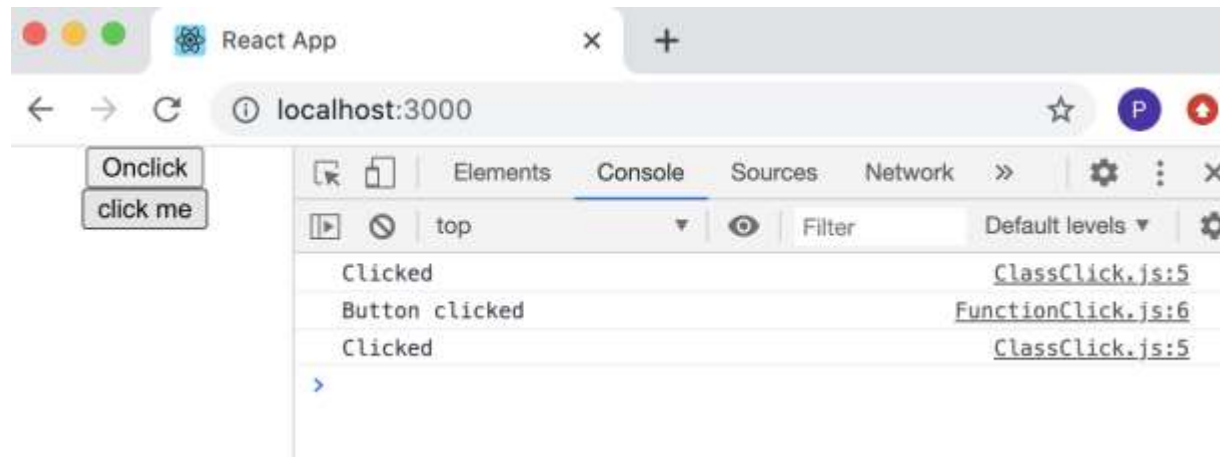
Create Class component inside of it and add button



```
src > components > JS ClassClick.js > [⌕] default
1  import React, { Component } from 'react'
2
3  class ClassClick extends Component{
4    clickHandler(){
5      console.log('Clicked')
6    }
7    render(){
8      return(
9        <div>
10         <button onClick={this.clickHandler}> click me </button>
11       </div>
12     )
13   }
14 }
15
16 export default ClassClick
```



```
App.js — hello-word
JS App.js x JS FunctionClick.js JS ClassClick.js
src > JS App.js > App > render
2  import logo from './logo.svg';
3  import './App.css';
4  import Greet from './components/Greet'
5  import Welcome from './components/Welcome'
6  import Hello from './components/Hello'
7  import Message from './components/Message'
8  import Counter from './components/ClassClick';
9  import FunctionClick from './components/FunctionClick'
10 import ClassClick from './components/ClassClick';
11
12 class App extends Component {
13   render(){
14     return (
15       <div className="App">
16         <FunctionClick />
17         <ClassClick />
18       </div>
19     )
20   }
21 }
```



# *Styling React Components:*

- CSS stylesheet
- Inline styling
- CSS Modules
- CSS in JS libraries

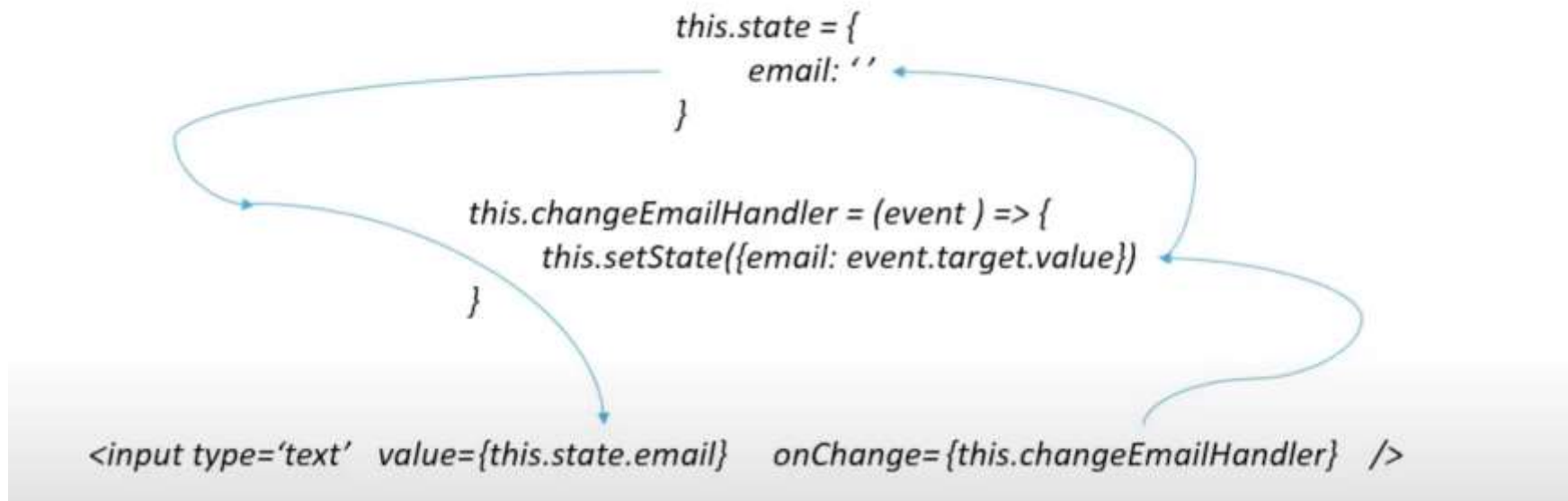
Each has example in W3school

## Basic of Form Handling:

For controlling the tags of Form in react we need **Controlled Components**

Input value has the value and also can change respect user interaction

So we use state and setState :





# Example:

```
JS Form.js • JS App.js
src > components > JS Form.js > Form
1 import React, { Component } from 'react'
2
3 class Form extends Component {
4   constructor(props) {
5     super(props)
6
7     this.state = {
8       username: ''
9       //comments: ''
10    }
11  }
12  changeUsernameHandler=(event)=>{
13    this.setState({
14      username: event.target.value
15    })
16  }
17  render() {
18    return (
19      <form>
20        <div>
21          <label>Username</label>
22          <input type = 'text' value={this.state.username} onChange={this.changeUsernameHandler}/>
23        </div>
24      </form>
25    )
26  }
27
28  export default Form
29
```

```
src > JS App.js > ...
1 import React, { Component } from 'react';
2 import logo from './logo.svg';
3 import './App.css';
4 import Greet from './components/Greet'
5 import Welcome from './components/Welcome'
6 import Hello from './components/Hello'
7 import Message from './components/Message'
8 import Counter from './components/ClassClick';
9 import FunctionClick from './components/FunctionClick'
10 import ClassClick from './components/ClassClick';
11 import Form from './components/Form'
12
13 class App extends Component {
14   render(){
15     return (
16       <div className="App">
17         <Form />
18       </div>
19     );
20   }
21 }
22
23 export default App;
24
```



Exercise :

Create button and give alert with info :

Finish