



React State

Web Development
Unit 20





**What is state within the context of a
React application?**



State is a set a values
belonging to a component
which change over time.



State may be represented
by a primitive or other data
structure. (often an object)

Initial App

Click Counter!

Click Count: 0

Increment

Increment Clicked

Click Counter!

Click Count: 1

Increment



What values should belong to state?

Increment Clicked

Click Counter

State has a
"count".

count = 1

Click Count: 1

Increment



What is a React Hook?



Hooks are a recent addition
to React



Hooks make it possible to use state and other features without implementing an ES6 class.

State with ES6 Class

```
export default class Counter extends React.Component {  
  state = {  
    count: 0,  
  };  
  
  handleClick = () => {  
    this.setState(  
      (state) => ({ count: state.count + 1 }),  
      () => console.log(`New value of count: ${this.state.count}`)  
    );  
  };  
  
  render() {  
    return (  
      <div className="card text-center">  
        <div className="card-header bg-primary text-white">Click Counter!</div>  
        <div className="card-body">  
          <p className="card-text">Click Count: {this.state.count}</p>  
          <button  
            className="btn btn-primary"  
            type="button"  
            onClick={this.handleClick}>  
            Increment  
          </button>  
        </div>  
      </div>  
    );  
  }  
}
```

Click Counter!

Click Count: 9

Increment

New value of count: 1

New value of count: 2

New value of count: 3

New value of count: 4

New value of count: 5

New value of count: 6

New value of count: 7

New value of count: 8

New value of count: 9

State with useState Hook

```
export default function Counter() {  
  let [count, setCount] = useState(0);  
  
  const handleClick = () => setCount((prevCount) => prevCount + 1);  
  
  console.log(`Count: ${count}`);  
  
  return (  
    <div className="card text-center">  
      <div className="card-header bg-primary text-white">Click Counter!</div>  
      <div className="card-body">  
        <p className="card-text">Click Count: {count}</p>  
        <button className="btn btn-primary" type="button" onClick={handleClick}>  
          Increment  
        </button>  
      </div>  
    </div>  
  );  
}
```

Click Counter!

Click Count: 4

Increment

Count: 0

Count: 1

Count: 2

Count: 3

Count: 4

Further reading

Use `this.setState` with a class component:

<https://reactjs.org/docs/react-component.html#setstate>

Use the `useState` hook with a functional component:

<https://reactjs.org/docs/hooks-state.html>