

ReactJS — State Management

Web Dev, Spring 2021

ReactJS components

Component = class whose objects have:

- a render method that returns the HTML + CSS of the component
- some component state
- every time the component state changes, ReactJS re-renders the component (recreates the HTML)

Can attach a component anywhere in an HTML document

BUTTON-CONTROLLED PIC

```
state = {  
  showing: ...  
}
```

```
render() {  
  // show button or picture  
  // depending on state  
}
```

How do you share state between components?

Intuition: state is encapsulated in the component that needs it

- E.g., a tab selector → state = current tab

This doesn't work so well when you start splitting component into subcomponents

- Put the state in the highest component in common between all the subcomponents that need to access the state
- If a subcomponent needs "read-only" access to state, pass it as a prop
- If a subcomponent needs "write" access to state, pass a state update function

Simple example: click counter

ClickCounter

234

State = count

BUMP COUNT

Simple example: click counter

ClickCounter

ShowCount

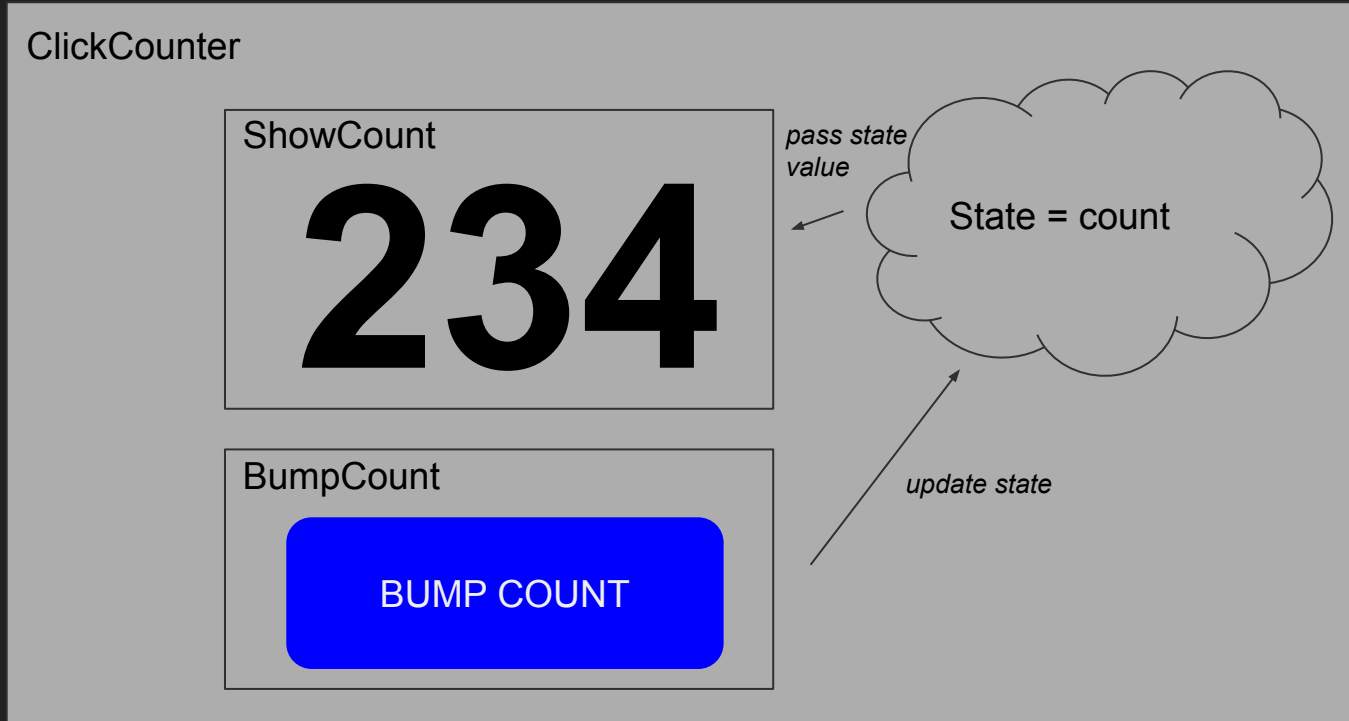
234

BumpCount

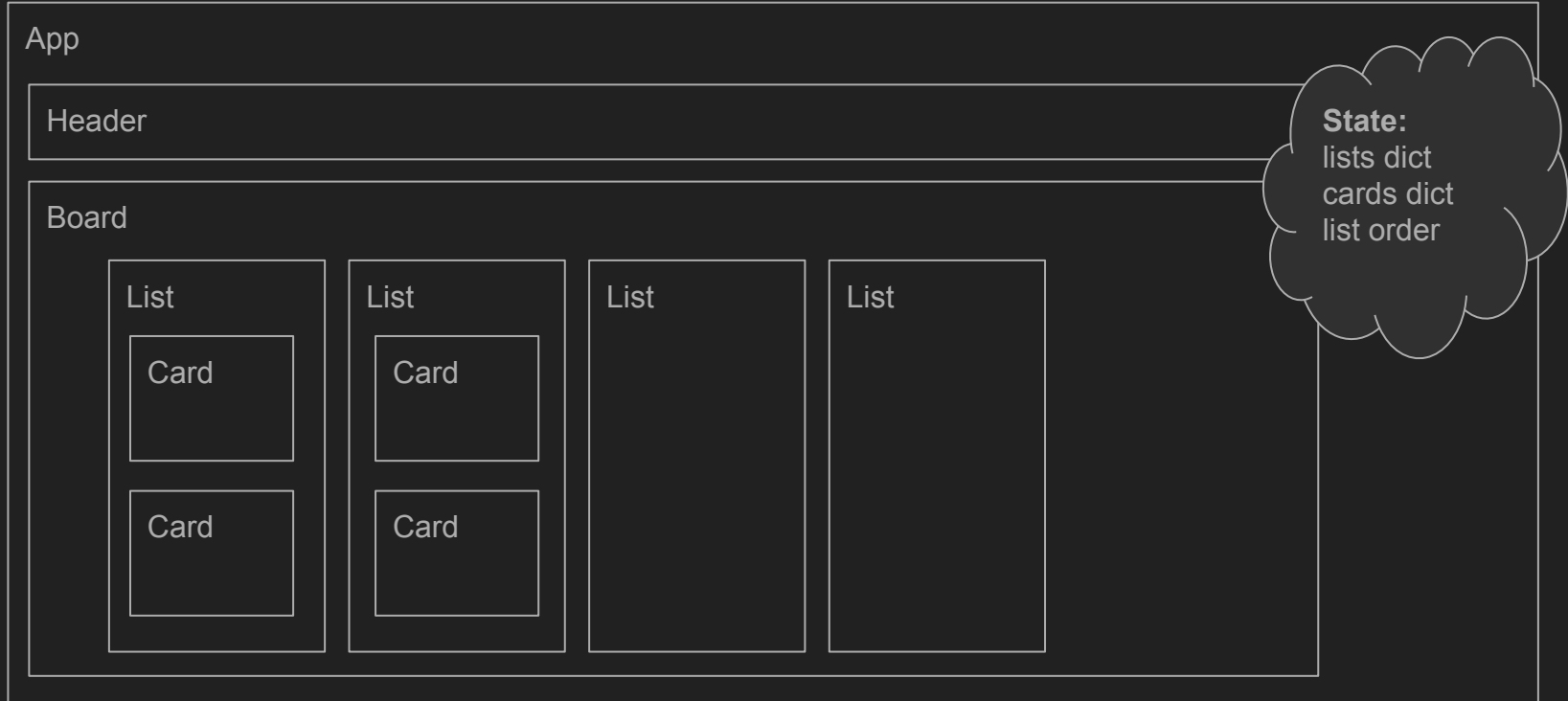
BUMP COUNT

State = count

Simple example: click counter



A more realistic example: Trello



Global state management

