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THE ULTIMATE REACT COURSE

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SECTION

WORKING WITH COMPONENTS,
PROPS, AND JSX

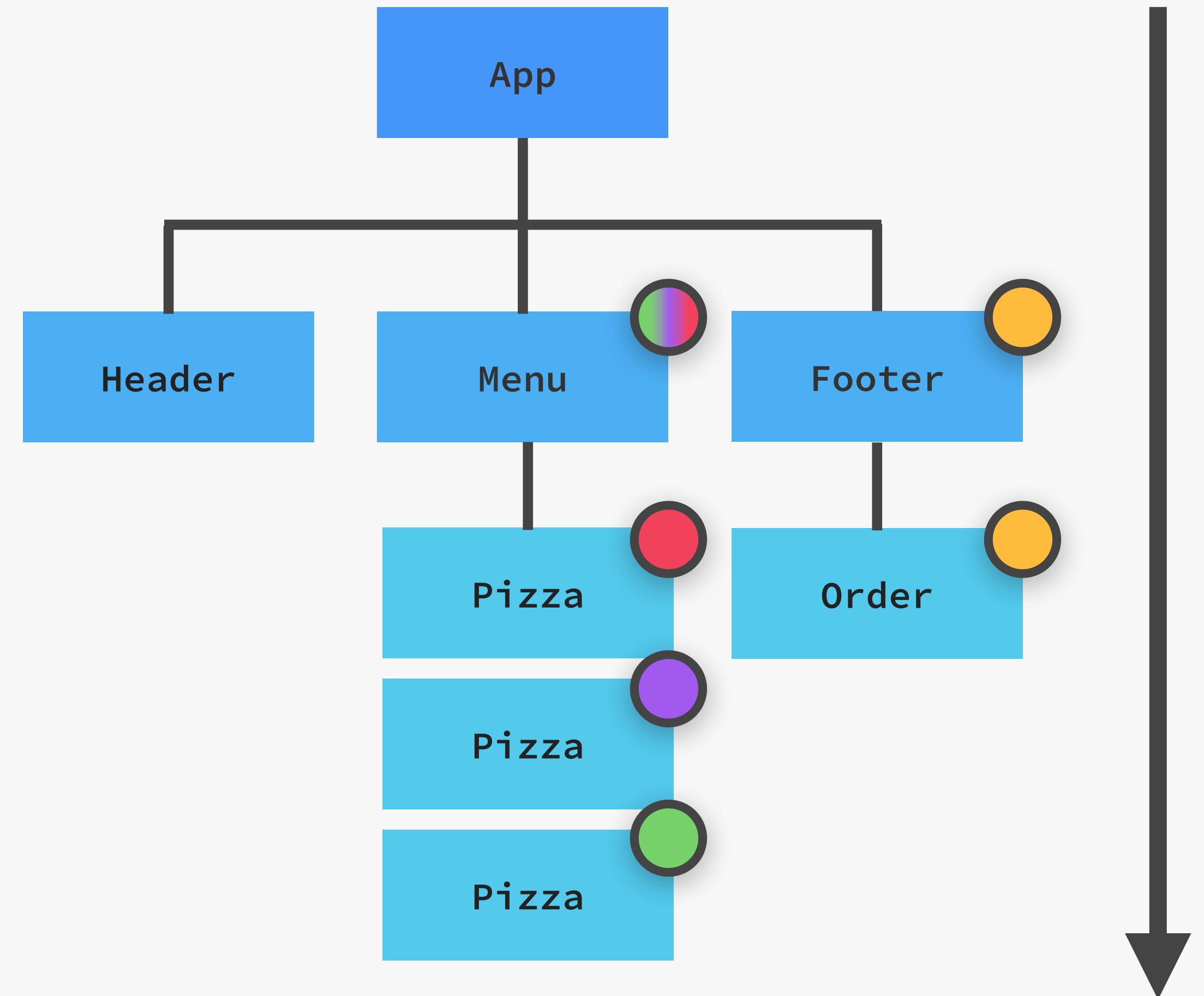
LECTURE

PROPS, IMMUTABILITY, AND ONE-
WAY DATA FLOW

REVIEWING PROPS

PROPS

- 👉 Props are used to pass data from **parent components** to **child components** (down the component tree)

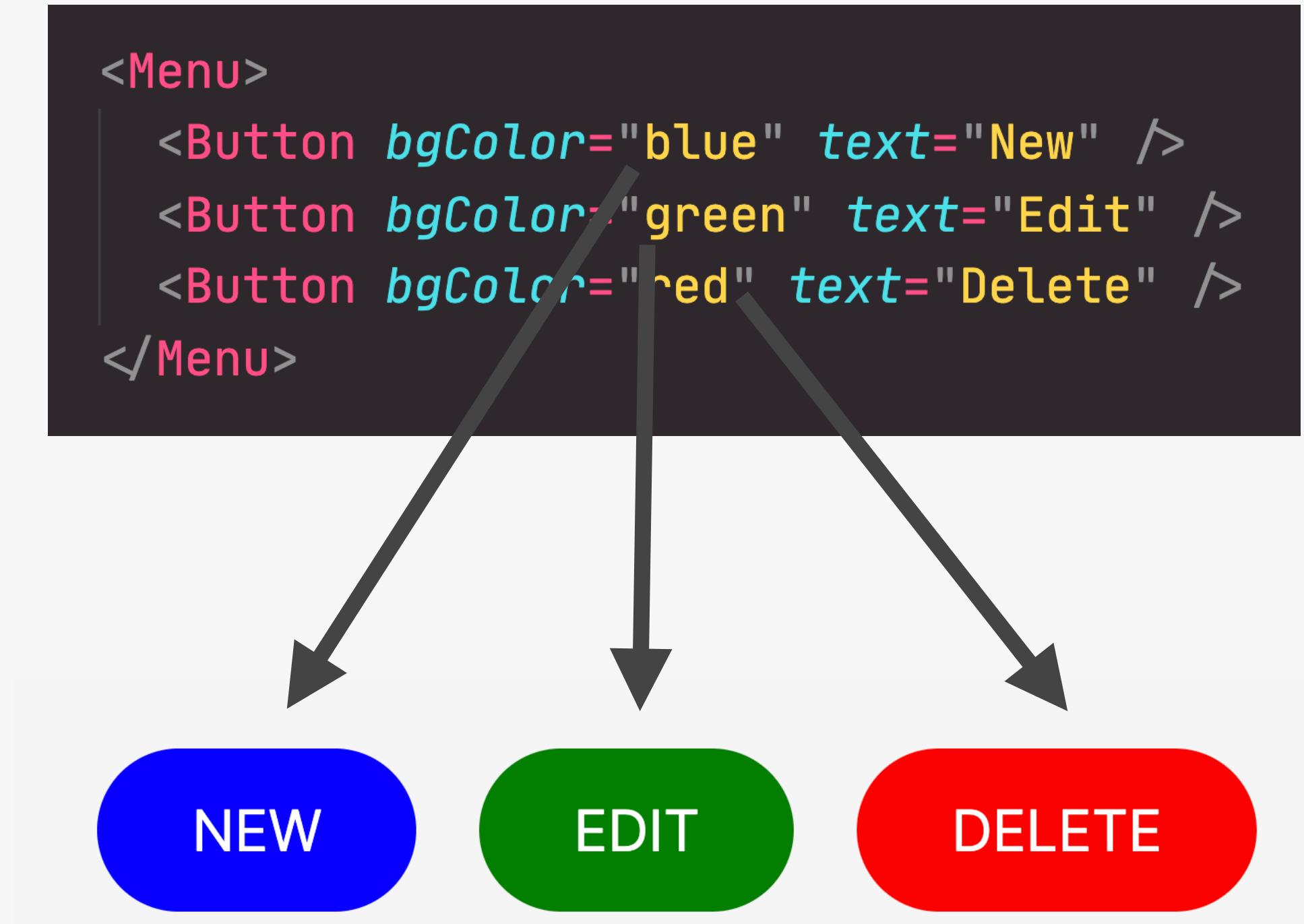


REVIEWING PROPS

PROPS

- 👉 Props are used to pass data from **parent components** to **child components** (down the component tree)
- 👉 Essential tool to **configure** and **customize** components (like function parameters)
- 👉 With props, parent components **control** how child components look and work

```
<Menu>
  <Button bgColor="blue" text="New" />
  <Button bgColor="green" text="Edit" />
  <Button bgColor="red" text="Delete" />
</Menu>
```



REVIEWING PROPS

PROPS

- 👉 Props are used to pass data from **parent components** to **child components** (down the component tree)
- 👉 Essential tool to **configure** and **customize** components (like function parameters)
- 👉 With props, parent components **control** how child components look and work
- 👉 **Anything** can be passed as props: single values, arrays, objects, functions, even other components

```
function CourseRating() {  
  const [rating, setRating] = useState(0);  
  
  return (  
    <Rating  
      text="Course rating"  
      currentRating={rating}  
      numOptions={3}  
      options={["Terrible", "Okay", "Amazing"]}  
      allRatings={{} num: 2390, avg: 4.8 }  
      setRating={setRating}  
      component={Star}  
    />  
  );  
  
  function Star() {  
    // To do  
  }  
}
```

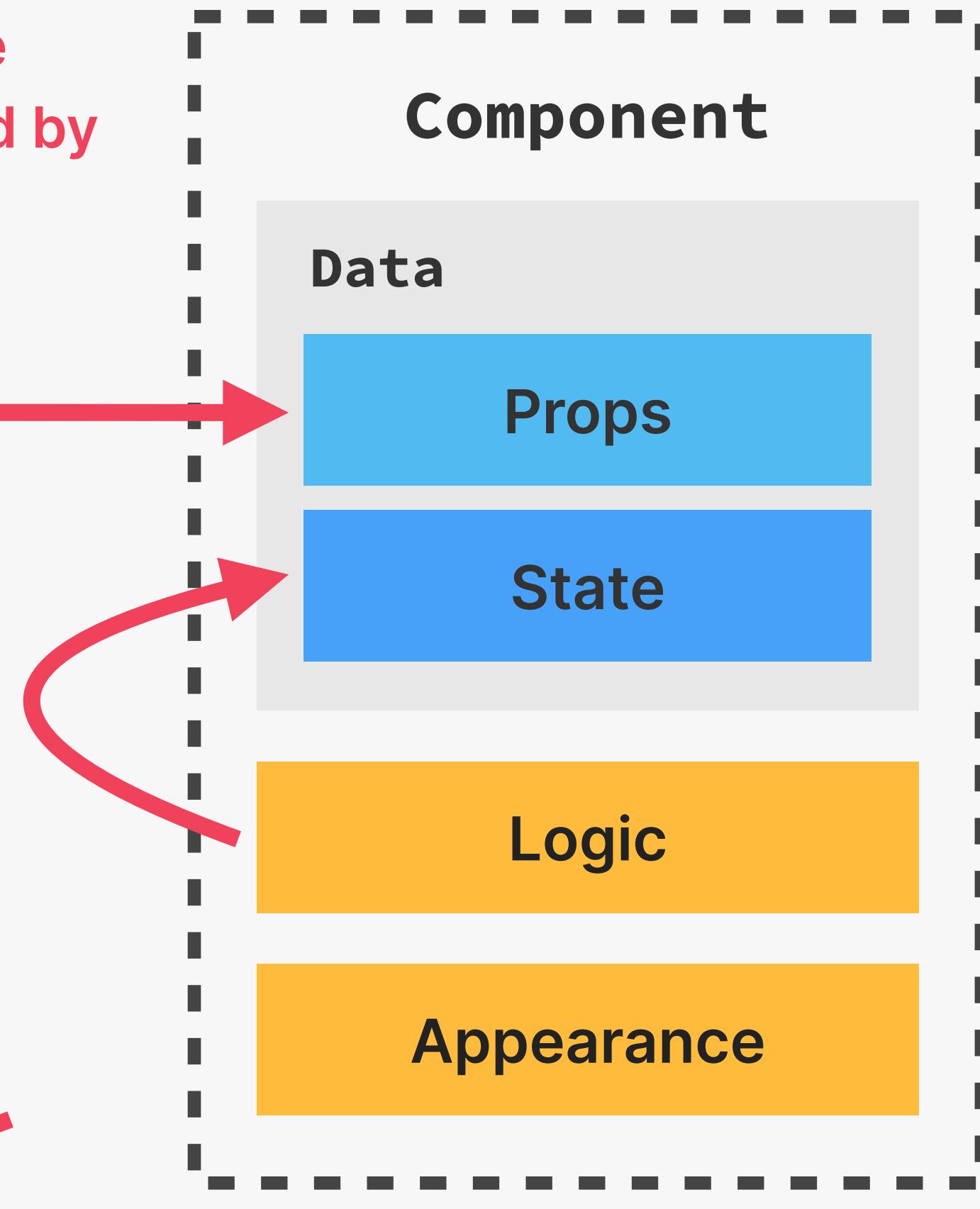
PROPS ARE READ-ONLY!

Props is data coming from the **outside**, and can **only** be updated by the **parent component**

Parent Component

State is **internal data** that can be updated by the **component's logic**

```
let x = 7;  
  
function Component() {  
  x = 23;  
  return <h1>Number {x}</h1>  
}
```



Don't do this!

👉 Props are **read-only**, they are **immutable**! This is one of React's strict rules.

👉 If you need to mutate props, you actually **need state**

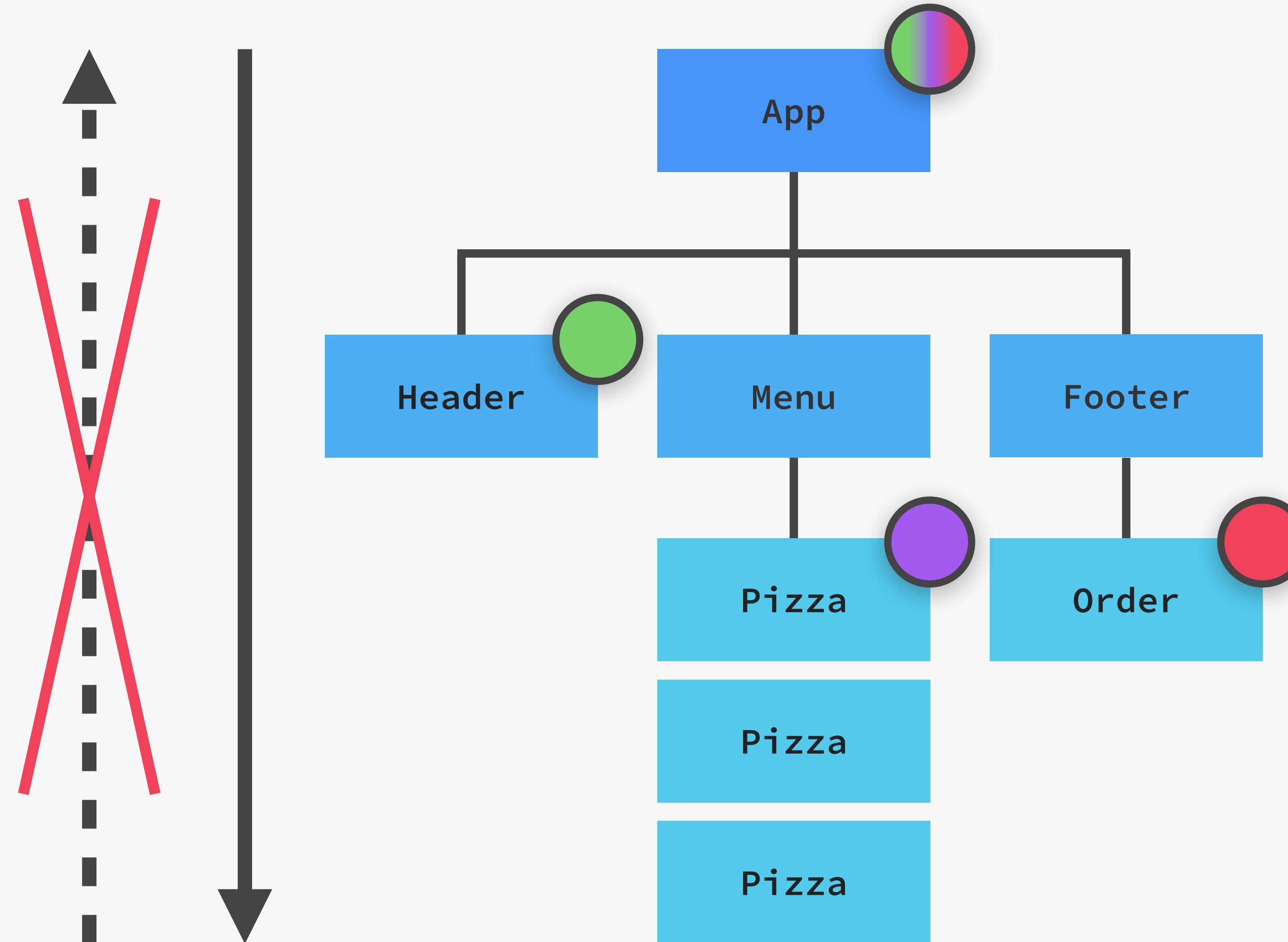
↓ WHY?

👉 Mutating props would affect parent, creating **side effects** (not pure)

👉 Components have to be **pure functions** in terms of props and state

👉 This allows React to optimize apps, avoid bugs, make apps predictable

ONE-WAY DATA FLOW



ONE-WAY DATA FLOW...

- 👍 ... makes applications more predictable and easier to understand
- 👍 ... makes applications easier to debug, as we have more control over the data
- 👍 ... is more performant



Angular has two-way data flow