



# DERIVED STATE

- 👎 Three separate pieces of state, even though numItems and totalPrice depend on cart
- 👎 Need to keep them in sync (update together)
- 👎 3 state updates will cause 3 re-renders

👍 **Derived state:** state that is computed from an existing piece of state or from props

- 👍 Just regular variables, no useState
- 👍 cart state is the **single source of truth** for this related data
- 👍 Works because re-rendering component will **automatically re-calculate** derived state

```
const [cart, setCart] = useState([
  { name: "JavaScript Course", price: 15.99 },
  { name: "Node.js Bootcamp", price: 14.99 }
]);
const [numItems, setNumItems] = useState(2);
const [totalPrice, setTotalPrice] = useState(30.98);
```



DERIVING STATE

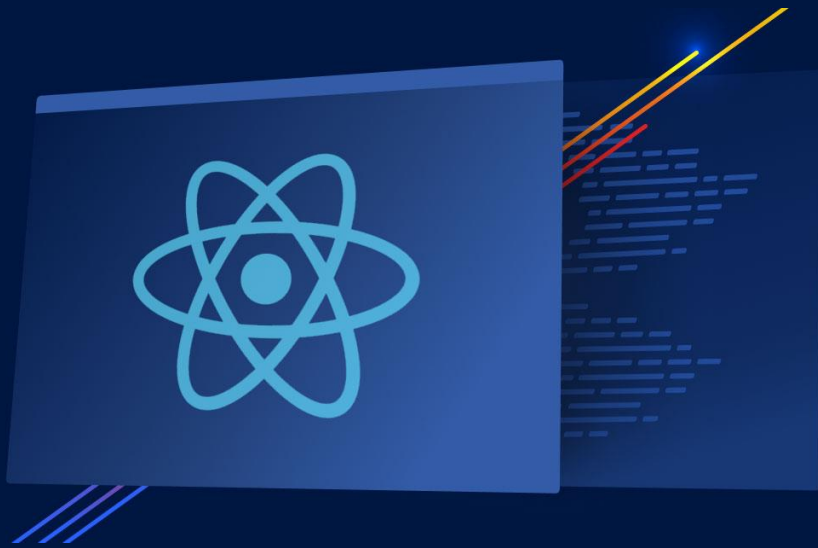
```
const [cart, setCart] = useState([
  { name: "JavaScript Course", price: 15.99 },
  { name: "Node.js Bootcamp", price: 14.99 }
]);
const numItems = cart.length;
const totalPrice =
  cart.reduce((acc, cur) => acc + cur.price, 0);
```





# Do you find it helpful?

**Let me know down in the comments.**



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