React: Components and Props

Phase 2 // Week 1, Day 1

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Today's Objectives

Today, we'll answer the following questions:

1. What is **React**?

2. What are **components**, **JSX**, and **props**?

3. What do we (not) like about React?

What is React?

- **React** is a JavaScript library for building websites and apps.
- Its manifesto, if it had one, might go something like this:
    1. Every application can be reduced to <u>a combination of one or more **components**</u>.
    2. **Components** should be <u>reusable</u>.
    3. **Components** should <u>only re-render when they need to</u>.

How do we write a component?

- **Components** <u>are just like functions</u>: we can call them anywhere, pass them inputs, define things inside of them, and return things from them.

```
function Dish({ name }) {
  return (
    <h1>{name}</h1>
  )
}
                    function Restaurant() {
                      const dishNames = ["pasta", "bread"];
                      return (<>
                        <Dish name="sushi" />
                        <Dish name={dishNames[0]} />
                      </>)
                    }
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```
function ChildComponentName({ propNameA, propNameB }) {
  /* …things… */
  return (<htmlTag>{propNameA} | {propNameB}</htmlTag>)
}

function ParentComponentName({ propNameC, propNameD, … }) {
  /* …things… */
  return (<ChildComponentName propNameA={propValueA} />)
}
```

Let's try it 👨‍💻

How do we feel about React?

Thanks!