React Lesson 1: What is React?

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What is React?

React is a JavaScript library used to build user interfaces (UIs). It helps you build web apps that update quickly without reloading the whole page.

Simple Example:

Imagine a calculator. Without React, changing a number reloads the whole app. With React, only that number changes.

Core Ideas:

- Components: Tiny building blocks of UI (like LEGO pieces)
- Props: Data sent into a component (like giving a hat to a LEGO figure)
- State: Data that a component manages itself (like score in a game)
- JSX: HTML + JS mixed together

Getting Started:

Install Node.js from https://nodejs.org/

```
Create a React App:
```

Run in terminal:

npx create-react-app my-first-react-app

cd my-first-react-app

npm start

Sample Component (App.js):

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```
This is my first component
</div>
);
}
export default App;
```

Explanation:

- function App() creates a component
- return (...) defines the UI
- JSX is HTML + JS
- export default App allows reuse

Practice:

Try editing App.js:

- Change the text
- Add a button: <button>Click me</button>
- Add your name with <h2>Hello, I'm [Your Name]</h2>

Summary:

- React builds fast UIs using components
- Components = LEGO pieces
- JSX mixes HTML and JS
- You built your first app!

Next: JSX and Rendering UI