

Okay, let's break this down slowly so it's super clear for you — just like we did with the Todo app.

✦ Controlled Inputs in React

◆ What it means

A **controlled input** in React is an input field whose **value** is controlled by React **state**.

This means:

- The **state** decides what's shown inside the input.
- When you type, the **state changes**.
- The updated state is then shown in the UI again.

In short:

State → updates UI → UI updates State → cycle repeats

◆ Example Code

// 🧠 Step 1: Import useState hook

```
import React, { useState } from "react";
```

```
function MyForm() {
```

// 🧠 Step 2: Create state to store input value

```
  const [name, setName] = useState("");
```

```
  return (
```

```
    <div>
```

```
      {/* ✍ Step 3: Input whose value is controlled by state */}
```

```
      <input
```

```
        type="text"
```

```
        value={name} // ✅ State controls what appears in the input
```

```
        onChange={(e) => setName(e.target.value)} // ✅ Input changes state
```

```
      />
```

```
    { /* 🚩 Step 4: Show the current value on screen */}  
    <p>Your name is: {name}</p>  
  </div>  
);  
}  
  
export default MyForm;
```

🔍 How it works step-by-step:

1. **useState("")** → Creates a variable name with an empty string initially.
 2. **value={name}** → Whatever name is, that's what's shown in the input.
 3. **onChange={(e) => setName(e.target.value)}** →
 - When you type in the input, the onChange event triggers.
 - e.target.value means "the latest typed value".
 - setName(...) updates the state with that new value.
 4. **React re-renders** → Shows the updated value in the input (and anywhere else you use it).
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💡 In simple words:

This is like a notebook.

- name is the page where we write your text.
 - The input reads from that page.
 - When you write something new, we erase the old and write the new text on the page.
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If you want, I can **also show you uncontrolled inputs** so you understand the difference and when to use each. That's the next thing after controlled inputs in form validation.