

useRef()

What is ref ?

Before hooks, ref was used with class components to directly access DOM elements or React elements.

What is useRef ?

useRef is a Hook that returns a mutable ref object whose .current property persists across renders.

Basic Syntax:

```
const inputRef = useRef();  
  
const handleFocus = () => {  
  inputRef.current.focus();  
}  
  
return (  
  <div>  
    <input ref={inputRef} type="text" placeholder="Type here..." />  
    <button onClick={handleFocus}>Focus Input</button>  
  </div>  
);
```

- ❑ `useRef()` is like a box you can store anything inside (DOM node, number, object, etc.).
- ❑ Changes to `.current` do not cause re-render.
- ❑ It's not reactive, but persistent.

Two Main Uses of useRef

1. Accessing DOM Elements
2. Storing Mutable Values (Without Re-render)

1. Accessing DOM Elements

When you need to directly manipulate a DOM element (e.g., focus, scroll, play video).

```
const videoRef = useRef();

function playVideo() {
  videoRef.current.play();
}
```

2. Storing Mutable Values (Without Re-render)

Sometimes you want to store data between renders without triggering updates.

```
const [count, setCount] = useState(0);
const renderCount = useRef(0);

renderCount.current += 1;

return (
  <div>
    <h3>Count: {count}</h3>
    <h4>Render Count: {renderCount.current}</h4>
    <button onClick={() => setCount(count + 1)}>Increase</button>
  </div>
);
```

Difference between useState and useRef:

Feature	useState	useRef
Triggers re-render on update	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Persistent between renders	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes
Common use	Store UI data	Store DOM reference or mutable value

Thank
You