Understanding Higher-Order Components (HOCs)

SWIPE LEFT

Abhijeet Chakane

What Are Higher-Order Components (HOCs)?

Higher-Order Components (HOCs) are functions that take a component and return a new component. They are a pattern in React for reusing component logic and enhancing components with additional functionalities.

Why Use HOCs?

- Code Reusability: Encapsulate reusable logic in one place.
- Separation of Concerns: Separate the "what" (UI) from the "how" (behavior).
- Component Composition: Build new components by wrapping them in HOCs.

Creating an HOC

To create an HOC, define a function that takes a component and returns another component.

```
function withExtraInfo(WrappedComponent) {
  return function EnhancedComponent(props) {
    return (
      <div>
        <WrappedComponent {...props} />
        <p>Extra information added by HOC!</p>
      </div>
    );
  };
}

```

Using an HOC

Wrap your original component with the HOC to create an enhanced component.

```
function MyComponent(props) {
  return <h1>Hello, {props.name}!</h1>;
}

const MyComponentWithExtraInfo = withExtraInfo(MyComponent);

// Usage
<MyComponentWithExtraInfo name="React Learner" />;

```

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The HOC withExtraInfo adds an extra paragraph to MyComponent.

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```

The HOC withExtraInfo adds an extra paragraph to MyComponent.

Key Benefits & Best Practices

- Easy Logic Sharing: Share non-UI logic across multiple components.
- Do Not Mutate: Never mutate the original component; always return a new one.
- Pass Props Through: Ensure HOCs pass all relevant props down to the wrapped component.

Thank You

Abhijeet Chakane