W8D3 - UseContext()

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UseContext()

useContext is a React Hook that lets you **read** and **subscribe** to context from your component.

UseContext()

React’s **useContext** is a powerful hook that simplifies state management by eliminating the need for prop drilling.

Prop drilling occurs when data is passed through multiple nested components, making the code harder to maintain.

Understanding the UseContext()

Step 1

Define the Context (like creating a "box" to hold shared data)

```
const UserContext = createContext();
```

Understanding the UseContext()

Step 2

Build a "Provider" component that holds the state (e.g., user data) and shares it with any child component via Context

```
export function UserProvider({ children }) {
  // State management (could be useState, useReducer, etc.)
  const [user, setUser] = useState({ name: "Alice", avatar: "🐹" });

  // Wrap children with the Provider and pass the "value"
  return (
    <UserContext.Provider value={{ user, setUser }}>
      {children}  // All children can now access `user` and `setUser`
    </UserContext.Provider>
  );
}
```

Understanding the UseContext()

Step 3

Export the Provider (for wrapping the app) and a custom hook (for easy access to the Context)

```
export const useUser = () => useContext(UserContext);
```

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Step 4

In **App.jsx**, wrap the component you need to access the the Provider:

```
function App() {
  return (
    <UserProvider>
      <Header />  // Header doesn't need to pass `user` to Avatar!
    </UserProvider>
  );
}
```

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Step 5

In any nested component (e.g., Avatar), use the custom hook

```
function Avatar() {
  const { user } = useUser();  // No props needed!
  return <div>{user.avatar}</div>;  // Outputs: 🐹
}
```

So what is UseContext() ?

The **Context** is the shared State Box

Think of UserContext as a "box" that holds data everyone can access.

So what is UseContext() ?

The **Provider** Fills the Box

UserProvider puts the user and setUser into the box and makes it available to its children.

So what is UseContext() ?

Custom Hook = Key to the Box

useUser() is a shortcut to open the box and grab what’s inside.

So what is UseContext() ?

Context

→ Like a school’s announcement board.

Provider

→ The teacher who posts updates (state) on the board.

useUser()

→ Students reading the board (no need to ask peers for info).

To remember about useContext()

Forgetting the Provider:

Context only works if the component tree is wrapped in it

Overusing Context:

Not all state needs to be global (use local state for isolated needs).