

REACT JS




Conditional Rendering

Conditional rendering allows you to dynamically display different UI elements based on certain conditions

Ternary Operator

A concise way to render different UI elements based on a boolean condition.



```
return isLoggedIn ? <UserGreeting /> : <GuestGreeting />;
```

Short Circuit Evaluation

A technique to efficiently render UI elements based on conditional expressions.




```
return isLoggedIn && <UserGreeting />;
```



Event Handling

Handling Events


A way to define functions that respond to specific user interactions, such as clicks, form submissions, and input changes.



```
const handleClick = () => {  
  // Handle the click event  
};
```

useState with Event Handling

Integrating event handlers with useState to dynamically update component state based on user input.




```
const [inputValue, setInputValue] = useState("");  
  
const handleChange = (e) => {  
  setInputValue(e.target.value);  
};
```



Hooks

useState


A hook for managing component state, allowing you to keep track of data within the component and update it as needed.



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

useEffect

A hook for handling side effects, such as data fetching, subscriptions, and cleanup logic.



```
useEffect(() => {  
  // Effect logic here  
}, [dependencies]);
```

useContext

A hook for sharing data across components without the need for prop drilling




```
const value = useContext(MyContext);
```



Components and Props

Functional Components


The fundamental building blocks of UI construction in React.



```
const MyComponent = (props) => {  
  return <div>(props.message)</div>;  
};
```

Destructuring Props


A concise way to access prop values directly within the functional comp.



```
const MyComponent ({ message }) => {  
  return <div>{message}</div>;  
};
```

Default Props

A mechanism to provide default values for props.




```
MyComponent.defaultProps = {  
  message: "Default Message",  
};
```



useReducer


A hook for managing complex state, providing a more structured approach to state updates.



```
const [state, dispatch] = useReducer (reducer, initialState);
```

useCallback

This hook memoizes a callback function, preventing unnecessary re-renders of child components.




```
const memoizedCallback = useCallback(() => {  
  // callback logic  
}, [dependencies]);
```



useMemo


useMemo memoizes the result of a computation, preventing it from being recalculated on every render.



```
const value useMemo(() => computeValue(a, b), [a, b]);
```

useRef

useRef returns a ref object with a current property that can be used to hold a mutable value.



```
const myRef = useRef(initialValue);
```





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