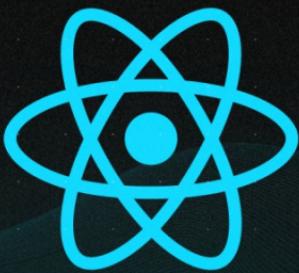




Improvements in React 19

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other new react
features



REACT 19

coming soon...



refs as a prop

then Previously, **refs** were created using `createRef()` outside the component, making it **challenging to pass them down to child components.**

now React 19 allows **directly passing ref as a prop** to functional components, streamlining ref usage and facilitating communication between parent and child components.



```
function ParentComponent() {  
  const myRef = React.createRef();  
  
  return (  
    <ChildComponent ref={myRef} /> ←  
  );  
}  
  
function ChildComponent(props) {  
  return (  
    <div ref={props.ref}>Child component!</div>  
  );  
}
```

Pass the ref as a prop to the child

Access the ref from props





Context as a provider

Without a clear way to define and consume context, sharing data across multiple levels of the component hierarchy required prop drilling, which can lead to **code duplication** and maintenance challenges.

React 19 reinforces the concept of Context as a provider, enabling developers to **create a centralized location to store and share application-wide data**. This promotes better code organization and simplifies data management.



```
const MyContext =  
  React.createContext(defaultValue);  
  
function MyProvider({ children, value }) {  Provide context  
  return (  
    <MyContext.Provider value={value}>  ← value  
      {children}  
    </MyContext.Provider>  
  );  
}  
  
function ChildComponent() {  Consume context  
  const value = React.useContext(MyContext);  ← value  
  return <div>Context value: {value}</div>;  
}
```





Cleanup functions for refs

then
now

Memory leaks could occur if refs weren't cleaned up correctly, especially in situations like **uncontrolled components or side effects within useEffect**.

React 19 introduces a cleanup function as an optional second argument to React.createRef(). This function allows you to **perform necessary cleanup tasks when the component unmounts** or the ref value changes.



```
const myRef = React.createRef(() => {
  // Cleanup logic here, e.g., removing event
  listeners
});

useEffect(() => {
  // ...
}, [myRef.current]); // Dependency on ref value
```





useDeferredValue initial value

then Previously, useDeferredValue didn't allow specifying an initial value, potentially leading to **unexpected behavior if accessed before the initial value** was resolved.

now React 19 now accepts **an initial value as an argument to useDeferredValue**, preventing potential issues when reading the value before it's settled.



```
const deferredValue = useDeferredValue(initialValue);
```





Diffs for hydration errors

then
now

Debugging hydration **mismatches**, which occur when the server-rendered HTML doesn't match the client-side rendered output, could be difficult due to a lack of clear error messages.

React 19 provides **more detailed diffs for hydration errors**, making it easier to identify and fix discrepancies between server and client rendering. This helps in ensuring a seamless user experience.

Document Metadata, Stylesheets, Async Scripts, Preloading Resources

then

While React doesn't directly provide APIs for these features, the improvements in React 19 **enable better integration with browser capabilities** for managing document metadata, stylesheets, async scripts, and preloading resources.

now

Modern browsers offer APIs like `document.head.append()` and link and script elements with the rel and as attributes for these purposes.





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The image shows a dark blue rectangular overlay with rounded corners, containing information about a YouTube channel. On the left is a circular profile picture for 'Code with Sloba'. To its right, the channel name 'Code with Sloba' is written in white, along with the subscriber count '@CodewithSloba • 21.8K subscribers'. Below this, a bio reads: 'Hi, my name is Slobodan (Sloba) Gajic, and I'm a JavaScript software developer. Building a'. To the right of the bio is a 'Subscribed' button with a bell icon and a dropdown arrow, with a white hand cursor pointing at it. A curved arrow points from the 'learn more' text above to this button.

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