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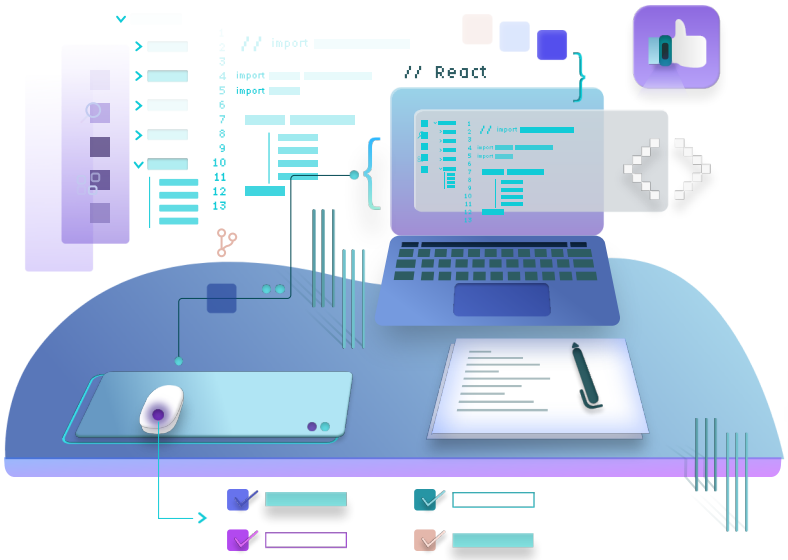


useEffect Hook

Manage with your component's lifecycle with the useEffect hook

React is known for its powerful state management process that doesn't require any page reload. One of the tools used for managing the state is the useEffect hook, that deals with the

component's lifecycle. Read on to learn how to use the useEffect hook.

CodeSandbox link

You can find the full code for this tutorial at **https://codesandbox.io/s/useeffect-yuwht**.

Understanding the component lifecycle

Using the useEffect hook means understanding the lifecycle of the component. This lifecycle consists of three main parts: mounting, updating, and unmounting. If you're familiar with the old wait to deal with the component lifecycle, these three parts correspond to **ComponentDidMount**, **ComponentDidUpdate**, **ComponentWillUnmount**.

To understand better a component's lifecycle, we can look at the lifecycle of a flower. When the flower's seed is planted, it is **mounted**. Then, as it grows, it is **updating** and, unfortunately, it will die (or **unmount**) someday. The component's lifecycle is exactly the same: when the user lands on the page, the component is mounted, then as the states update, the component is also updated, and, finally, the component is unmounted when the user leaves the page.

Anatomy of the useEffect hook

The component lifecycle is represented in three different parts of the useEffect hook, as shown in the code snippet below.

```
ect(() => {
Mounting
```

```
    return () => {
      // Cleanup function
    }
  }, [//Updating])
```

The first part is the mounting part. That's when the component is initially rendered when the user lands on the page. The return function is the cleanup function, or when the user leaves the page and the component will unmount. The array is the last part, and it is where you put the states that will update throughout the component's lifecycle. You can discard the array if your component won't update during its lifecycle.

When to use the useEffect hook?

The useEffect hook is useful when you wish to run some functions during the component's lifecycle. For example, if you want to update the UI when a state changes, the useEffect hook is the way to go. You can also define a state on first load (when componentDidMount), and also clean the state when the component is unmounting (componentWillUnmount).

Let's look at an example below. We want to update the page title every time the user clicks on a button on the page, using the useEffect and useState hooks.

Create your component

Start by creating your component. We'll reuse the button component we created in the **useState hook section** and incorporate the useEffect hook as well.

```
import React, { useState } from "react"

Button = () => {
st [count, setCount] = useState(0)
```

```
    return <button onClick={() => setCount(count + 1)}>You clicked {count} times</
}

export default Button
```

Import useEffect

In order to use **useEffect**, you'll need to import it at the top of the file. Don't forget to keep React and useState as we still need them.

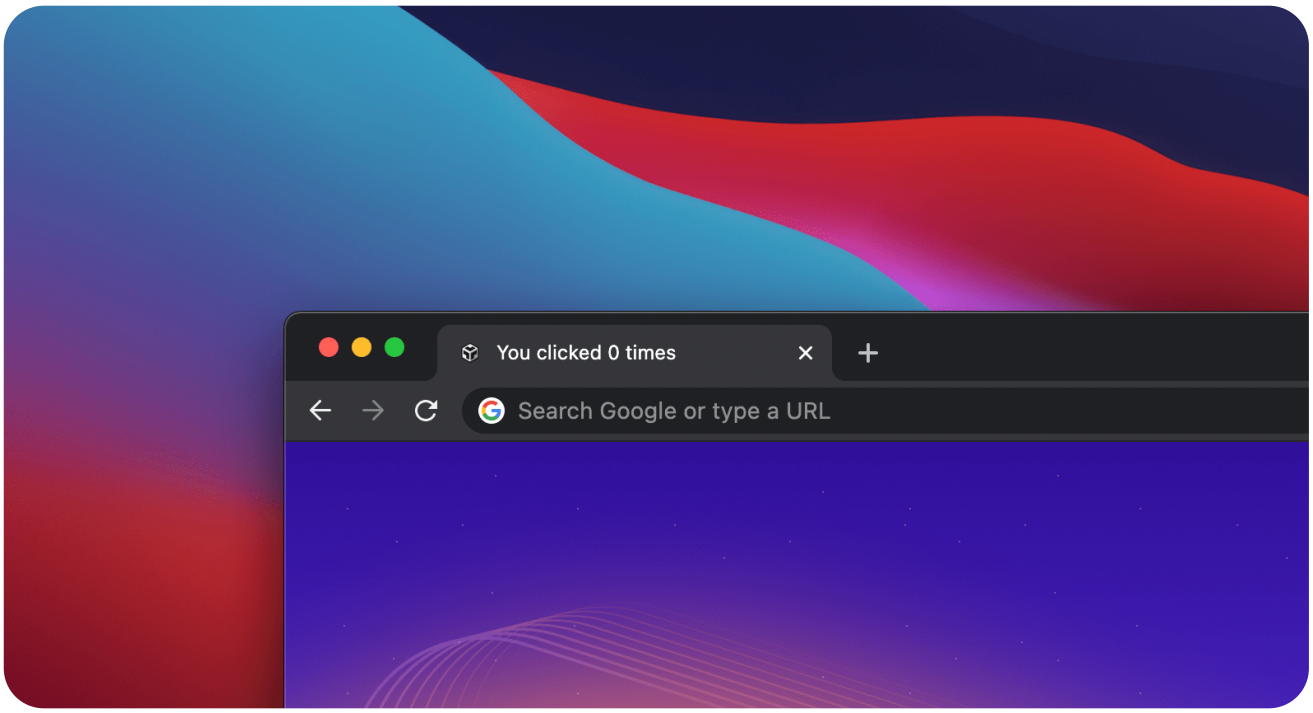
```
import React, { useState, useEffect } from "react"
```

Define useEffect

Next, create a new **useEffect** just above the return statement in your component. We want to update the document title every time the user clicks on the button, so let's set it in the mounting part of the useEffect hook.

```
useEffect(() => {
    document.title = `You clicked ${count} times.` // This is the mounting part
}, [])
```

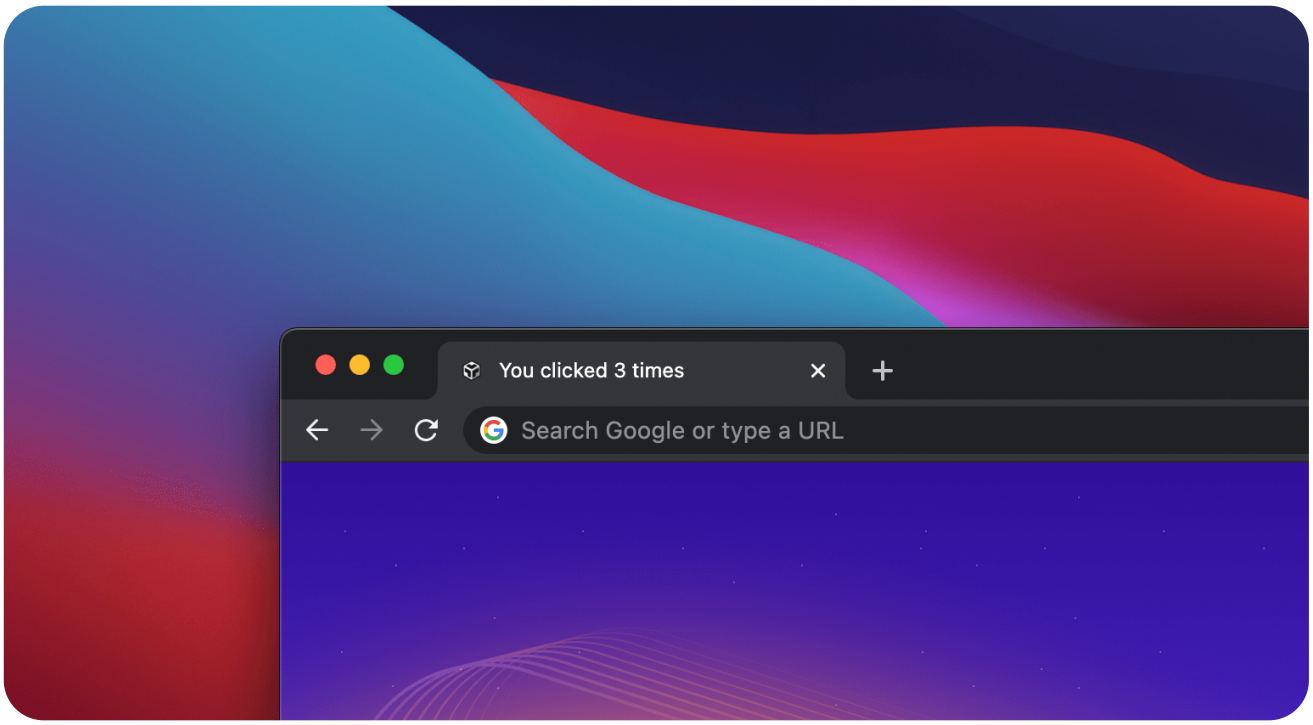
You'll see the title of the tab change to **You clicked 0 times**, since the value of **count** is initially set to 0.



However, when you click on the button, the text on the button updates but not the title of the tab. Therefore, we need to add the count state in the update array of the useEffect hook. Every time the **count** is updated, the useEffect will be re-run, updating the document title in our case.

```
useEffect(() => {
    document.title = `You clicked ${count} times.`
}, [count]) // Add the count state in the array here
```

Now, every time you click on the button, the title of the tab will update to reflect the number of times the user clicked on the button.



Final code with styling

You can style your components by using the **styled-components** package in your project. Learn more about it in **the Styling in React section** of this handbook.

The final code incorporating useEffect as well as useState and styled-components will look like this:

```
import React, { useState, useEffect } from "react";
import styled from "styled-components";

const MyButton = () => {
  const [count, setCount] = useState(0);

  Effect(() => {
  ocument.title = `You clicked ${count} times`;
  [count]);
```

```
  return (
    <StyledButton onClick={() => setCount(count + 1)}>
      You clicked {count} times
    </StyledButton>
  );
};

export default MyButton;

const StyledButton = styled.button`
  background: linear-gradient(91.4deg, #2fb8ff 0%, #9eecd9 100%);
  padding: 12px 0;
  width: 200px;
  border: none;
  border-radius: 30px;
  color: white;
  font-weight: bold;
  font-family: Segoe UI, sans-serif;
`;
```

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Meet the instructor

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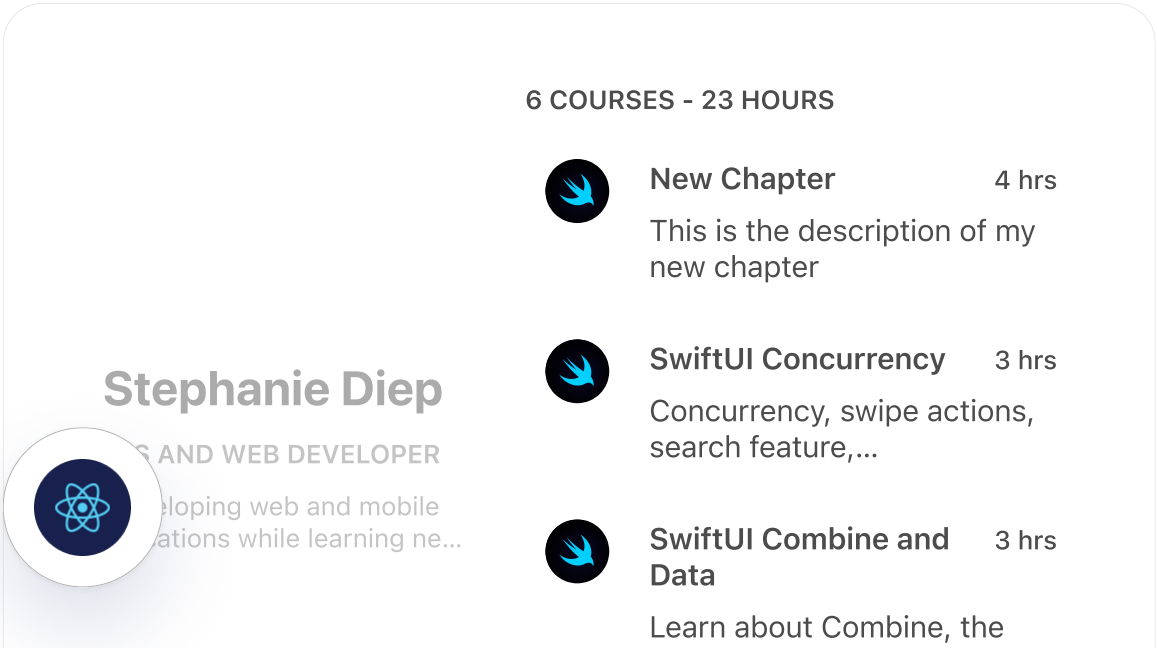

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SwiftUI Advanced 3 hrs

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