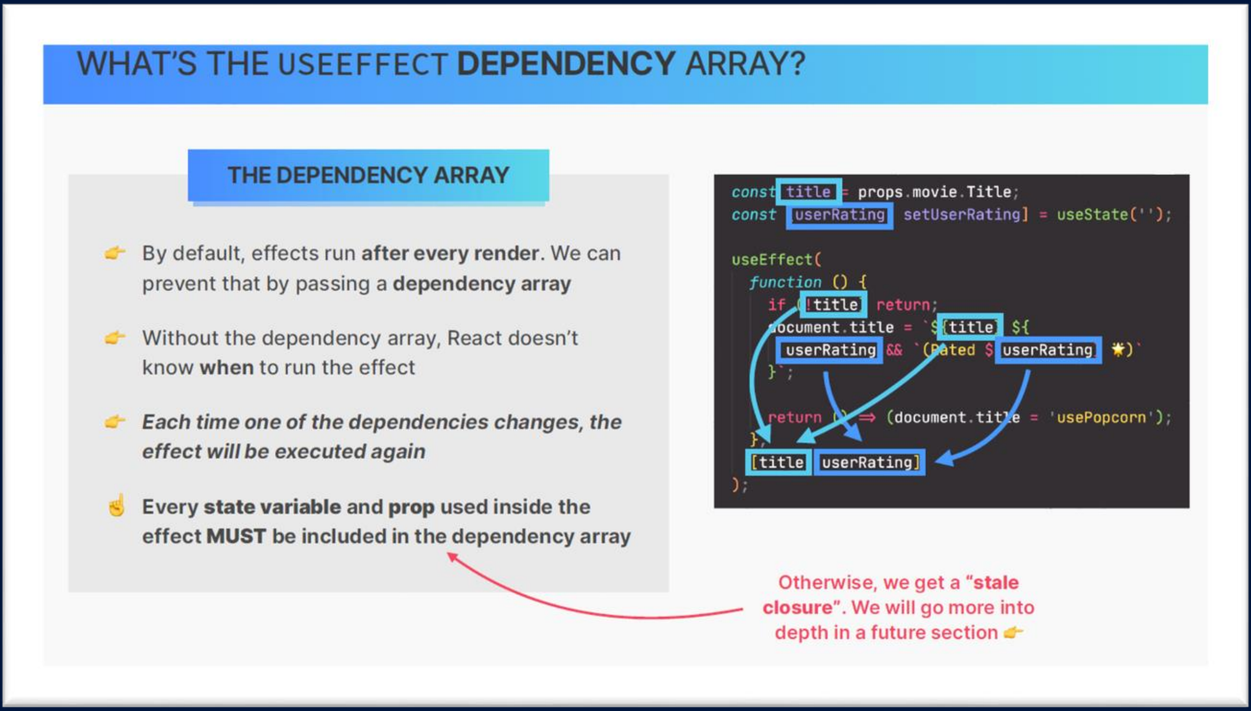
React

DEPENDENCY ARRAY



WHAT'S THE USEEFFECT **DEPENDENCY** ARRAY?

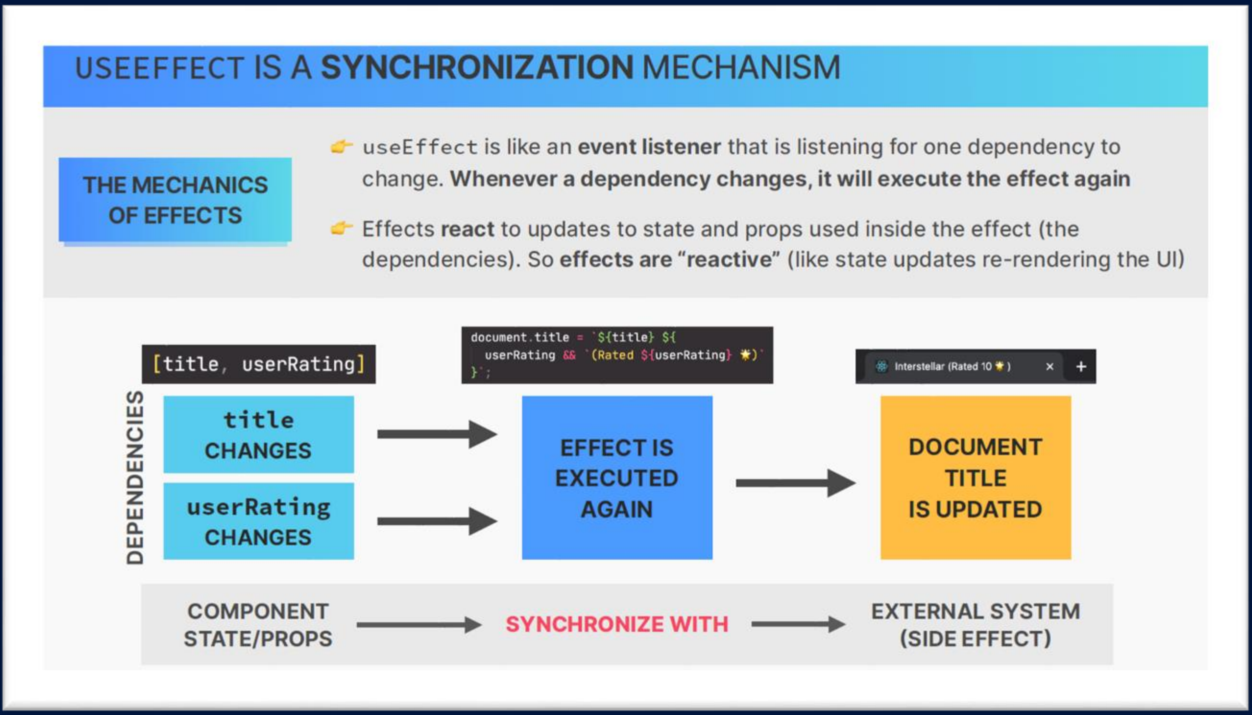
THE DEPENDENCY ARRAY

- 👉 By default, effects run **after every render**. We can prevent that by passing a **dependency array**
- 👉 Without the dependency array, React doesn't know **when** to run the effect
- 👉 ***Each time one of the dependencies changes, the effect will be executed again***
- ☝️ Every **state variable** and **prop** used inside the effect **MUST** be included in the dependency array

```
const title = props.movie.Title;
const [userRating, setUserRating] = useState('');

useEffect(
  function () {
    if (!title) return;
    document.title = `${title} ${
      userRating && `(Rated ${userRating} ⭐)`
    }`;

    return () => (document.title = 'usePopcorn');
  },
  [title, userRating]
);
```

Otherwise, we get a "**stale closure**". We will go more into depth in a future section 👉

React



USEEFFECT IS A **SYNCHRONIZATION** MECHANISM

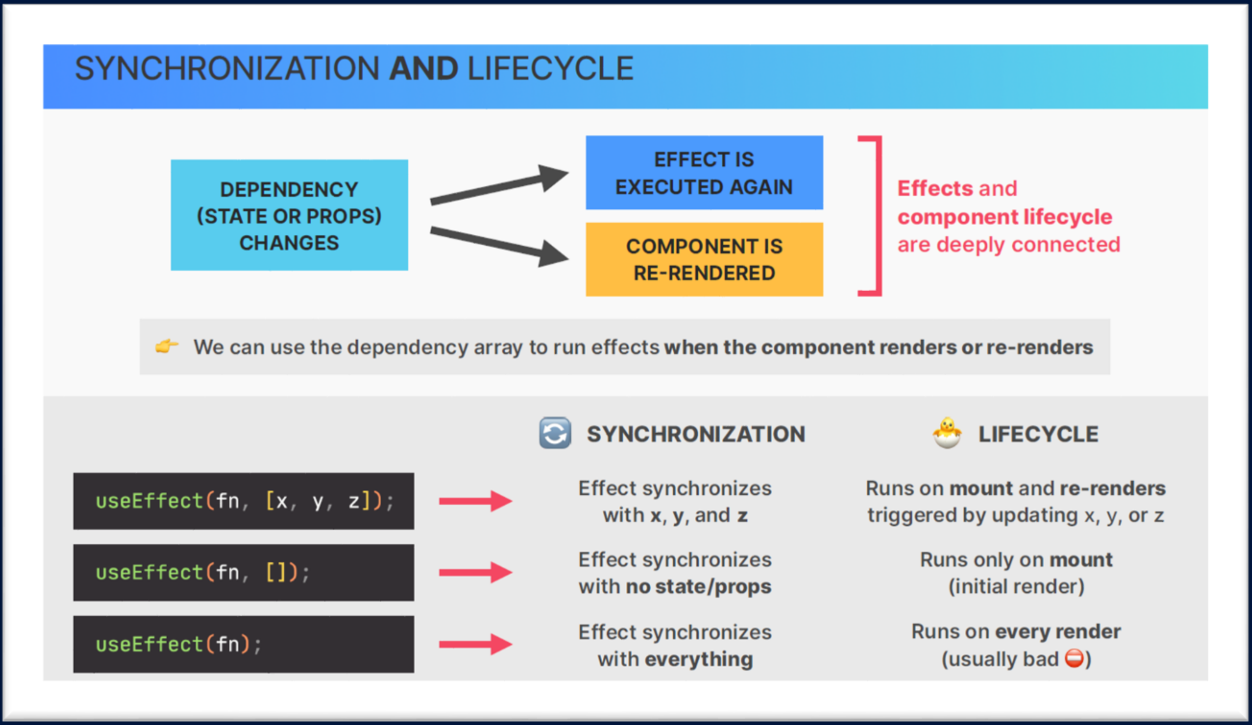
THE MECHANICS OF EFFECTS

- `useEffect` is like an **event listener** that is listening for one dependency to change. **Whenever a dependency changes, it will execute the effect again**
- Effects **react** to updates to state and props used inside the effect (the dependencies). So **effects are "reactive"** (like state updates re-rendering the UI)

```
[title, userRating]
```

```
document.title = `${title} ${
  userRating && `(Rated ${userRating} ⭐)`
}`;
```

Interstellar (Rated 10 ⭐)



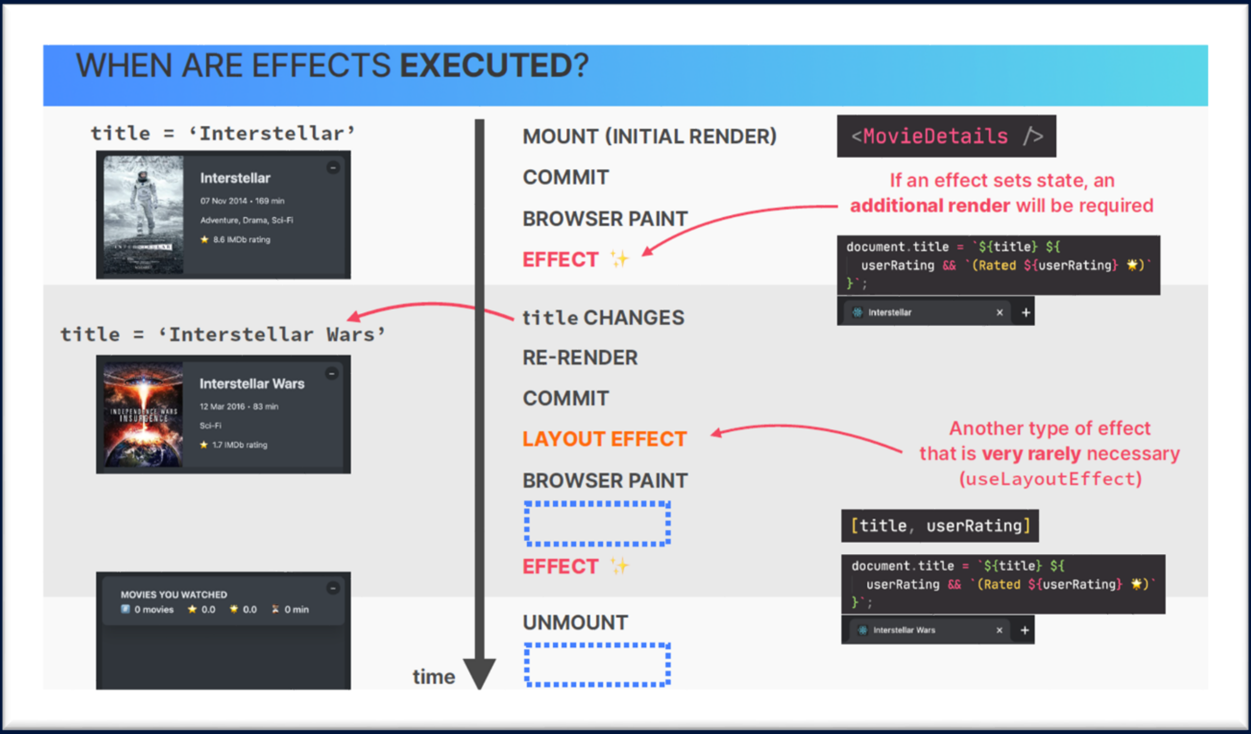
SYNCHRONIZATION **AND** LIFECYCLE

DEPENDENCY (STATE OR PROPS) CHANGES
EFFECT IS EXECUTED AGAIN
COMPONENT IS RE-RENDERED
Effects and component lifecycle are deeply connected

- We can use the dependency array to run effects **when the component renders or re-renders**

	SYNCHRONIZATION	LIFECYCLE
`useEffect(fn, [x, y, z]);`	Effect synchronizes with **x**, **y**, and **z**	Runs on **mount** and **re-renders** triggered by updating x, y, or z
`useEffect(fn, []);`	Effect synchronizes with **no state/props**	Runs only on **mount** (initial render)
`useEffect(fn);`	Effect synchronizes with **everything**	Runs on **every render** (usually bad ⛔)

React



WHEN ARE EFFECTS **EXECUTED**?

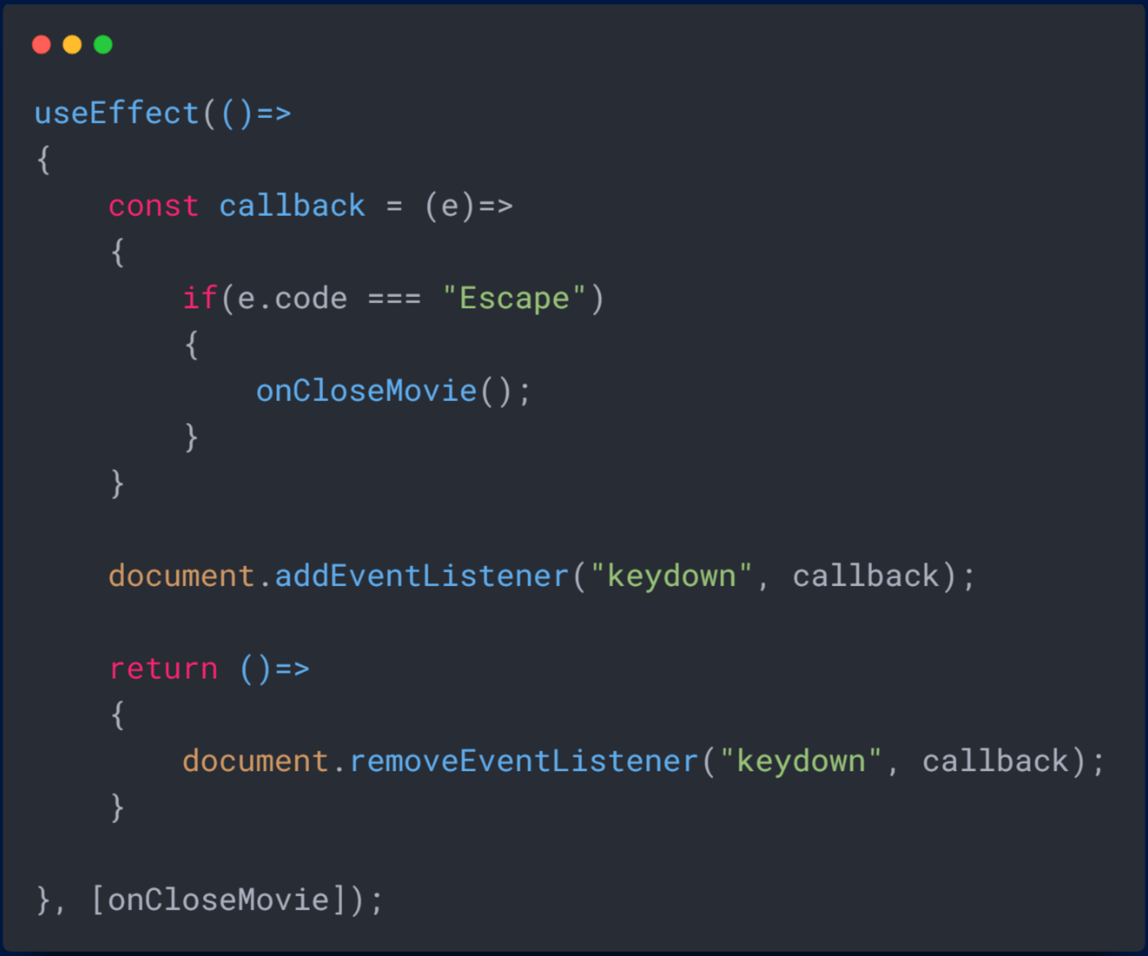
```
<MovieDetails />
```

```
document.title = `${title} ${
  userRating && `(Rated ${userRating} 🌟)`
}`;
```

```
[title, userRating]
```

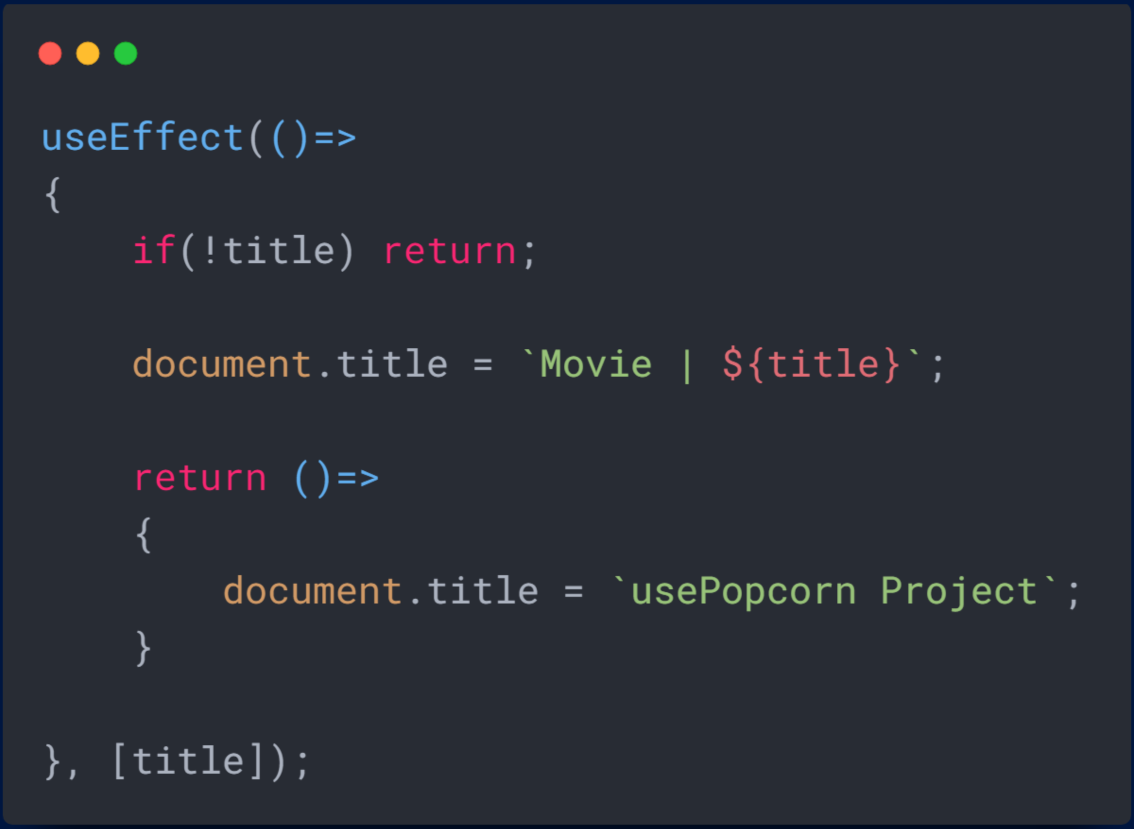
```
document.title = `${title} ${
  userRating && `(Rated ${userRating} 🌟)`
}`;
```

React



```
useEffect(()=>
{
    const callback = (e)=>
    {
        if(e.code === "Escape")
        {
            onCloseMovie();
        }
    }

    document.addEventListener("keydown", callback);

    return ()=>
    {
        document.removeEventListener("keydown", callback);
    }

}, [onCloseMovie]);
```

React

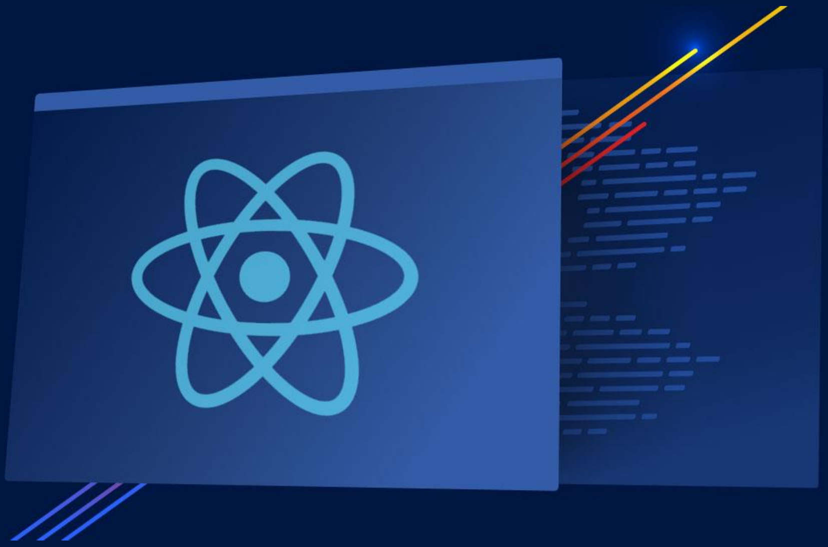


```
useEffect(()=>
{
    if(!title) return;

    document.title = `Movie | ${title}`;

    return ()=>
    {
        document.title = `usePopcorn Project`;
    }

}, [title]);
```

React

Do you find it helpful?

Let me know down in the comments.



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