@codebysid

Ultimate Guide to useEffect() in React

@codebysid

What is useEffect ?

useEffecf() is a React Hook which let us run side Effects in our components

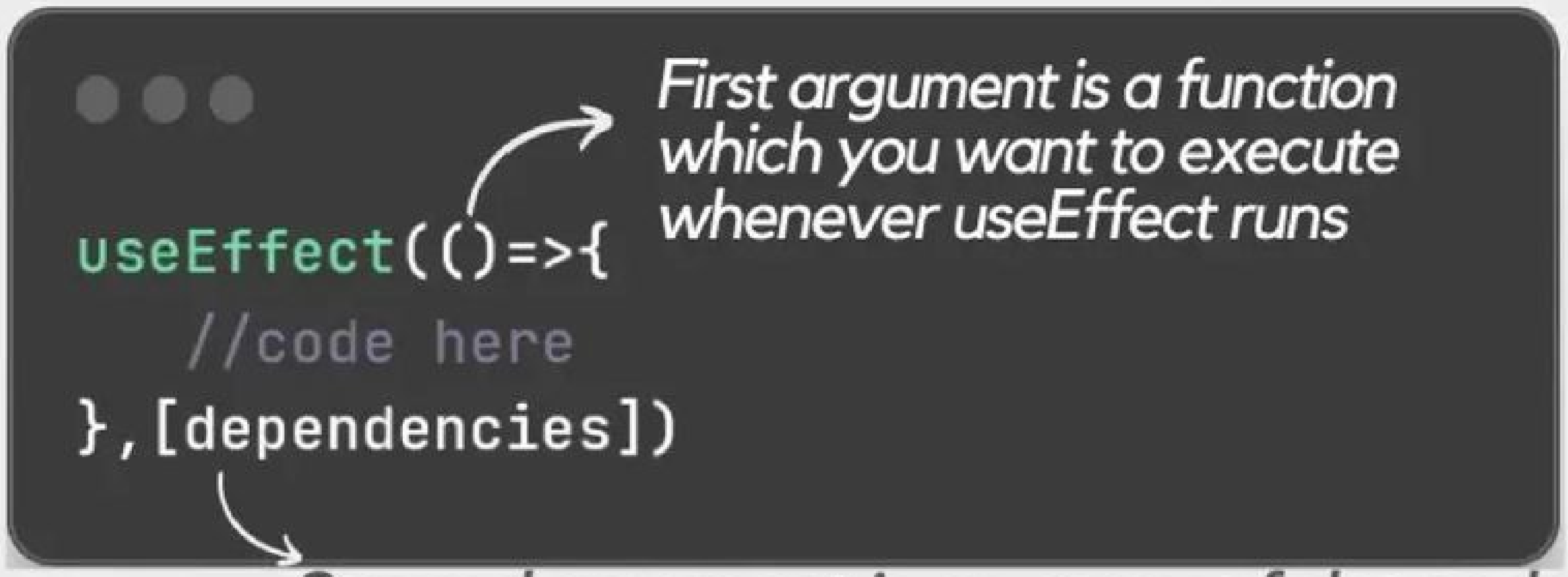
But what are Side Effects?

Side effects are those actions performed by the component to affect something outside of the component itself like updating state, calling an API, working with caches, modifying DOM etc

in Simple words , any action which connects the component to the outside world is a Side Effect

@codebysid

Syntax:- useEffect hook takes 2 arguments



```
useEffect(()=>{
    //code here
},[dependencies])
```

First argument is a function which you want to execute whenever useEffect runs

Second argument is an array of dependencies

But when useEffect() actually executes?

- So , useEffect() always executes when the component is rendered for the first time (when component mounts)
- useEffect() also executes whenever the second argument (dependency array) changes which cause a re-render of the component
- Remember useEffect (side effects) only runs after the component renders or re-renders , not before or not along the render but only after

@codebysid

Case 1:- Passing array of dependencies

```
useEffect(()=>{
    console.log("useEffect() in the house")
  },[test])
```

In this , we have passed test (state variable) as a dependency to the useEffect hook

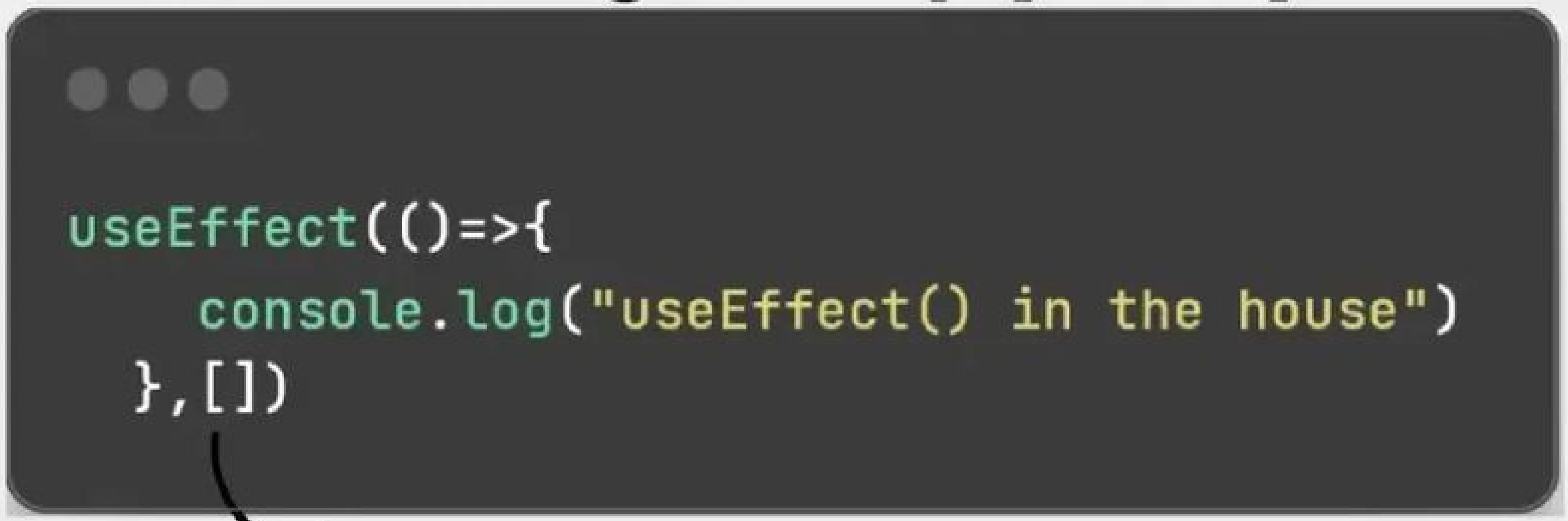
Order of execution

- *"useEffect() in the house" will console out* because component renders for the first time so useEffect executes

- Now , whenever the dependency changes which means test variable changes , useEffect will execute and console "useEffect() in the house"

@codebysid

Case 2:- Passing an empty array



```
useEffect(()=>{
    console.log("useEffect() in the house")
  },[])
```

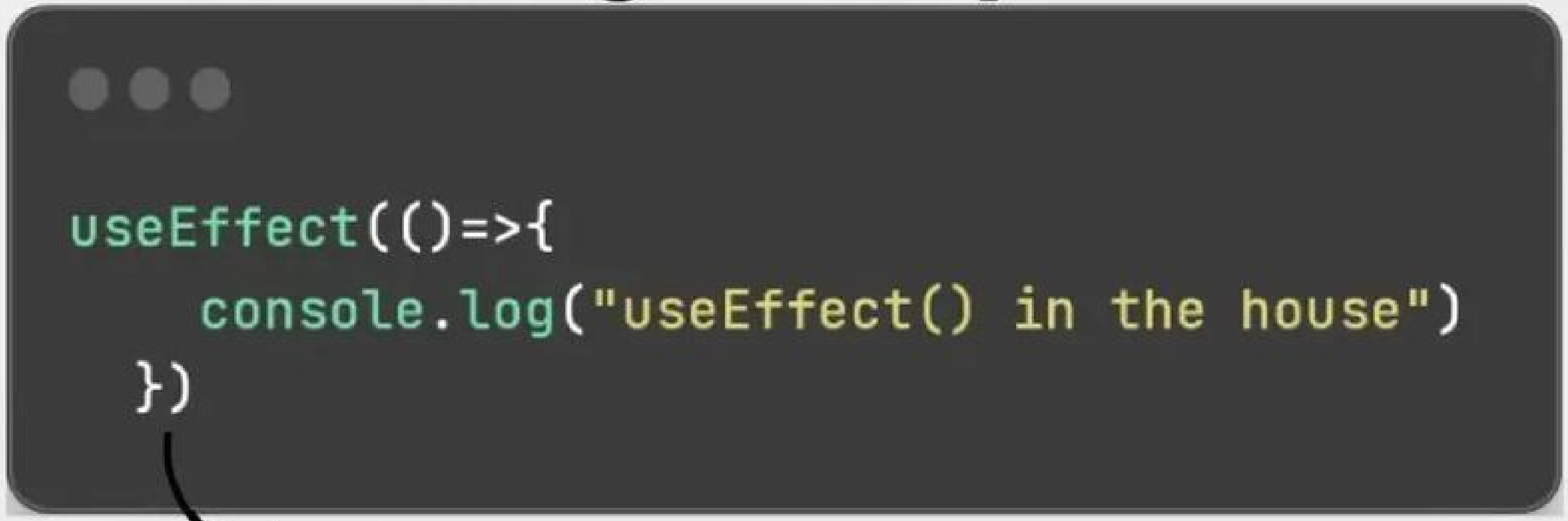
Empty Dependency Array

Order of execution

- *"useEffect() in the house" will console out* because component renders for the first time so useEffect executes
- *now there is no variable inside our dependency array so useEffect will never run again*

@codebysid

Case 3:- Passing no array



```
useEffect(()=>{
    console.log("useEffect() in the house")
  })
```

No Dependency Array

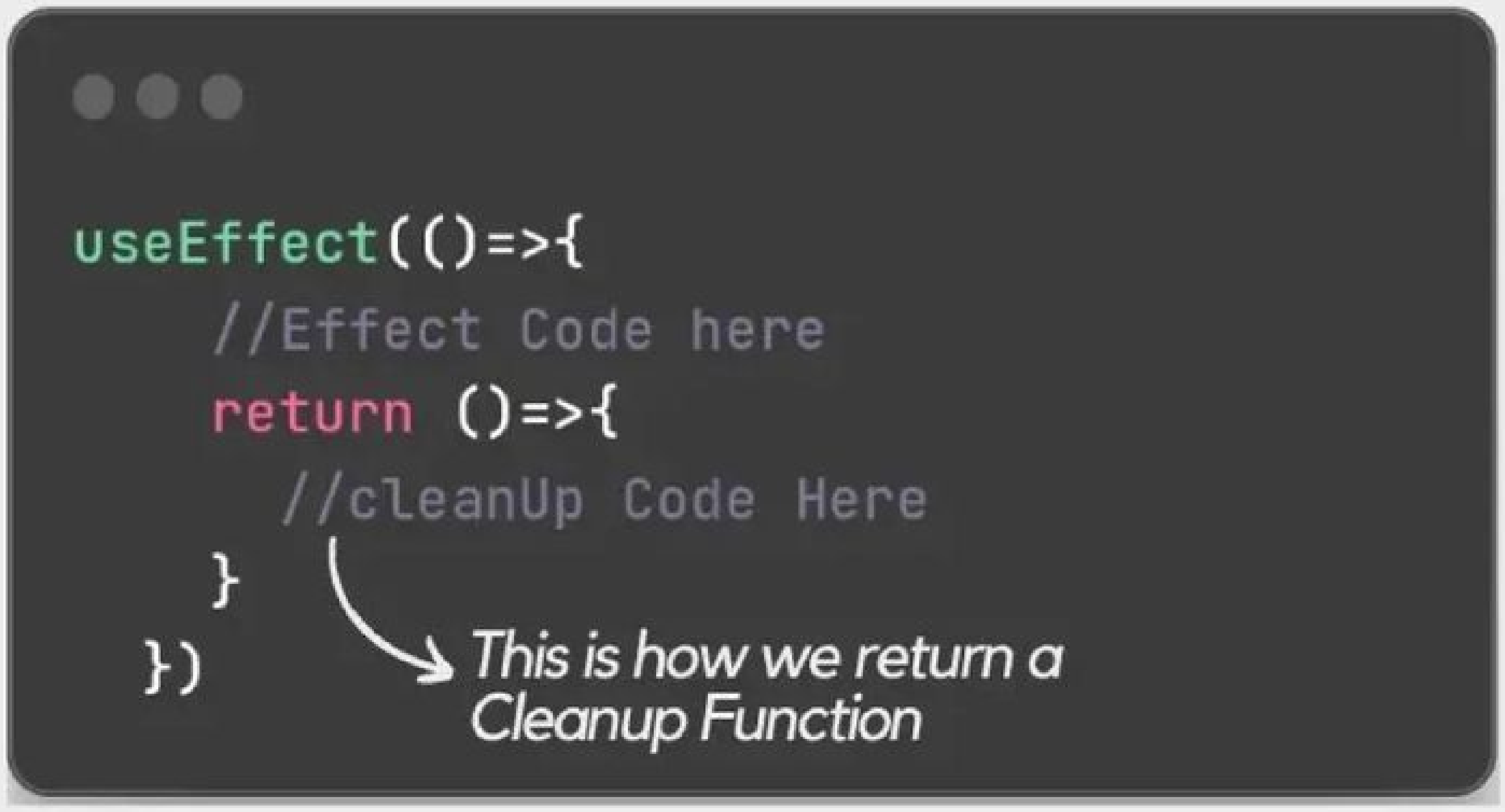
Order of execution

- *"useEffect() in the house" will console out* because component renders for the first time so useEffect executes

- *now there is no array available so useEffect will run everytime when the component re-renders no* matter why or how the component re-renders

Cleanup Function in useEffect()

- Cleanup Function in useEffect is an optional function that can be returned from the useEffect hook
- This function is used to perform necessary cleanups after the side effects executes



```
useEffect(()=>{
    //Effect Code here
    return ()=>{
      //cleanUp Code Here
    }
  })
```

This is how we return a Cleanup Function

Syntax and all is fine but i dont understand Cleanups?

lets see an example

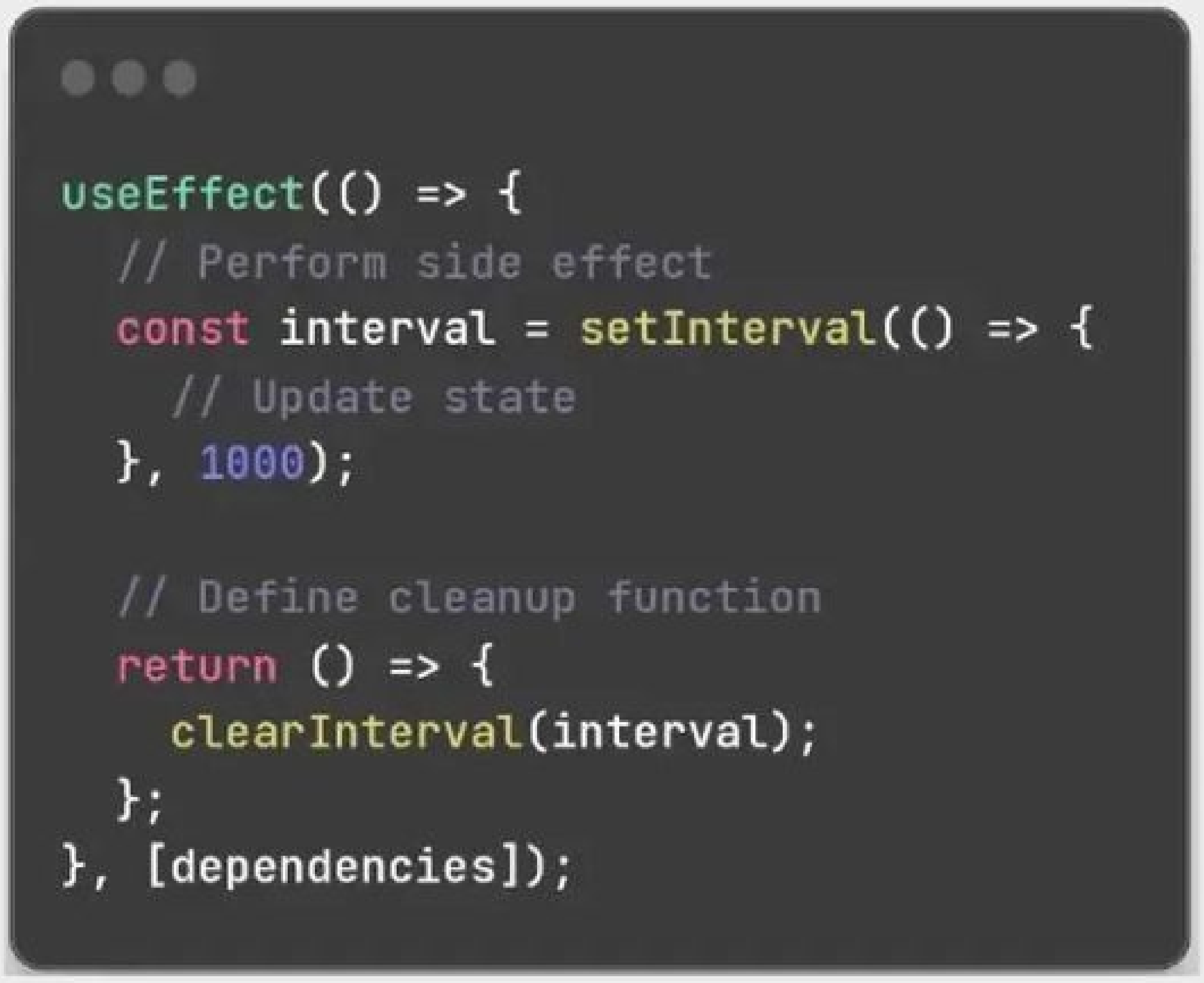
Example

```
useEffect(() => {
  // Perform side effect
  const interval = setInterval(() => {
    // Update state
  }, 1000);

  // Define cleanup function
  return () => {
    clearInterval(interval);
  };
}, [dependencies]);
```

- *Here we are using setInterval() inside useEffect to update the state at evey 1000ms or 1s*
- And we are returning a function (cleanup) which clear the side effect or specifically here clears the Interval
- lets see Order of Execution

@codebysid



```
useEffect(() => {
  // Perform side effect
  const interval = setInterval(() => {
    // Update state
  }, 1000);

  // Define cleanup function
  return () => {
    clearInterval(interval);
  };
}, [dependencies]);
```

- *first cleanUp function executes before the useEffect hook so it can clear the previous useEffect execution*
- *or in simple wordsl, cleanUp function executes everytime when the next useEffect(side effect) is executed*

Order of Execution

- *first useEffect runs on the first render and after that cleanUp executes*
- Now , whenever the component re-renders first cleanUp function executes and then useEffect hook

Follow for more Posts like this

@codebysid