

A screenshot of a Microsoft Windows desktop environment. At the top, there's a system tray with icons for battery, signal, volume, and a clock showing 20:35. Below it is a taskbar with pinned icons for File Explorer, Microsoft Edge, File Explorer, and a Microsoft Store icon.

The main window is a Microsoft Edge browser displaying a video player interface. The title bar says "Video 109". The video player has controls for play/pause, volume, and brightness. A progress bar shows the video is at 1:16 of 1:27.

To the left of the browser is a Microsoft Visual Studio Code (VS Code) window. The sidebar shows a project structure for "VIDEO 109" with files like "public", "src", ".eslintrc.cjs", ".gitignore", "index.html", "package.json", "README.md", and "vite.config.js".

The main content area of VS Code is a terminal window. It shows the following output:

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
powershell + ▾ □ ▫ ... ^ ×

✓ Select a framework: » React
✓ Select a variant: » JavaScript

Scaffolding project in C:\Users\iitia\Downloads\Sigma Web Development Course\Sigma-Web-Dev-Course\Video 109...
Done. Now run:

npm install
npm run dev

PS C:\Users\iitia\Downloads\Sigma Web Development Course\Sigma-Web-Dev-Course\Video 109> npm i
[#####.....] \ idealTree:eslint: timing idealTree:node_modules/eslint Completed in 1297ms
```

At the bottom left, there's a circular video feed showing a man with glasses and a beard. The status bar at the bottom of the screen shows the date as Friday, April 28, 2023, and the time as 20:35. The weather is listed as 13°C Cloudy.



EXPLORER ...

VIDEO 109

- > node_modules
- > public
- ✓ src
 - > assets
 - App.css
 - App.jsx
 - index.css
 - main.jsx
- .eslintrc.cjs
- .gitignore
- index.html
- package-lock.json
- package.json
- README.md
- vite.config.js

> OUTLINE

> TIMELINE

> TASK EXPLORER

× 0 ▲ 0 ⌂ 0



13°C

Cloudy

App.jsx X

src >

App.jsx >

App

```
1 import { useState, useEffect, useRef } from 'react'
2 import reactLogo from './assets/react.svg'
3 import viteLogo from '/vite.svg'
4 import './App.css'

5
6 function App() {
7   const [count, setCount] = useState(0)
8   let a = 0; ←

9
10  useEffect(() => {
11    console.log(`rerendering and the value of a is ${a}...`)
12  });

13
14  return (
15    <>
16      <div>
17        <a href="https://vitejs.dev" target="_blank">
18          <img src={viteLogo} className="logo" alt="Vite logo" />
19        </a>
20        <a href="https://react.dev" target="_blank">
21          <img src={reactLogo} className="logo react" alt="React logo" />
22        </a>
23      </div>
24    </>
25  );
26}
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

8:37:37 pm [vite] hmr update /src/App.jsx (x2)

node +



Ln 9, Col 1 Spaces: 2 UTF-8 LF

Vite + React

localhost:5173

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Vite + React

count is 8

Edit `src/App.jsx` and save to test HMR

Click on the Vite and React logos to learn more

Elements Console Sources Network Performance Security Memory Application Lighthouse Recorder >  

top ▾  Filter Default levels ▾ No Issues 2 hidden 

Download the React DevTools for a better development experience: <https://reactjs.org/link/react-devtools>

rerendering and the value of a is 0.. App.jsx:11

rerendering and the value of a is 0.. App.jsx:11

8 rerendering and the value of a is 0.. App.jsx:11

>



13°C Cloudy ENG IN Subscribed 2037 Thu

The screenshot shows a Microsoft Visual Studio Code (VS Code) interface. The left sidebar contains icons for Explorer, Search, Problems, Timeline, Task Explorer, and a gear icon with a '1' (Notifications). The Explorer view shows a project structure for 'VIDEO 109' with files like node_modules, public, src (containing assets, App.css, App.jsx, index.css, main.jsx), .eslintrc.cjs, .gitignore, index.html, package-lock.json, package.json, README.md, and vite.config.js. The file 'App.jsx' is currently selected and open in the center editor area.

The code in 'App.jsx' is:

```
src > App.jsx > App > useEffect() callback
1 import { useState, useEffect, useRef } from 'react'
2 import reactLogo from './assets/react.svg'
3 import viteLogo from '/vite.svg'
4 import './App.css'
5
6 function App() {
7   const [count, setCount] = useState(0)
8   let a = 0;
9
10  useEffect(() => {
11    a = a + 1
12    console.log(`rerendering and the value of a is ${a}...`)
13  });
14
15
16  return (
17    <>
18    <div>
19      <a href="https://vitejs.dev" target="_blank">
20        <img src={viteLogo} className="logo" alt="Vite logo" />
21      </a>
22      <a href="https://react.dev" target="_blank">
```

The terminal at the bottom shows the message: 8:38:02 pm [vite] hmr update /src/App.jsx (x4)



Vite + React

localhost:5173

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Vite + React

count is 20

Edit `src/App.jsx` and save to test HMR

Click on the Vite and React logos to learn more

Elements Console Sources Network Performance Security Memory Application Lighthouse Recorder > Default levels ▾ No Issues 2 hidden

Download the React DevTools for a better development experience: <https://reactjs.org/link/react-devtools>

rerendering and the value of a is 1..

rerendering and the value of a is 2..

20 rerendering and the value of a is 1..

>

→ because the component got re-rendered & value of 'a' not persist.

react-dom_client.js?v=d02f0f87:21534

App.jsx:12

App.jsx:12

App.jsx:12



13°C Cloudy ENG IN Thu 20-36

EXPLORER ...

VIDEO 109

- > node_modules
- > public
- src
 - > assets
 - App.css
 - App.jsx
 - index.css
 - main.jsx
- .eslintrc.cjs
- .gitignore
- index.html
- package-lock.json
- package.json
- README.md
- vite.config.js

App.jsx X

src > App.jsx > App > useEffect() callback

```
1 import { useState, useEffect, useRef } from 'react'
2 import reactLogo from './assets/react.svg'
3 import viteLogo from '/vite.svg'
4 import './App.css'

5
6 function App() {
7   const [count, setCount] = useState(0)
8   const a = useRef(0) ←

9
10  useEffect(() => {
11    a.current = a.current + 1 ←
12    console.log(`rerendering and the value of a is ${a.current}`) ←
13  });

14
15
16  return (
17    <>
18    <div>
19      <a href="https://vitejs.dev" target="_blank">
20        <img src={viteLogo} className="logo" alt="Vite logo" />
21      </a>
22      <a href="https://react.dev" target="_blank">
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

8:39:38 pm [vite] hmr update /src/App.jsx (x4)

Ln 12, Col 60 Spaces: 2 UTF-8 LF

1



Vite + React

Vite + React

count is 10

Edit `src/App.jsx` and save to test HMR

Elements | **Console** | Sources | Network | Performance | Security | Memory | Application | Lighthouse | Recorder | > |  |  | 

  top ▾ |  Filter | Default levels ▾ | No Issues | 2 hidden | 

```
rerendering and the value of a is 5.. App.jsx:12
rerendering and the value of a is 6.. App.jsx:12
rerendering and the value of a is 7.. App.jsx:12
rerendering and the value of a is 8.. App.jsx:12
rerendering and the value of a is 9.. App.jsx:12
rerendering and the value of a is 10.. App.jsx:12
rerendering and the value of a is 11.. App.jsx:12
rerendering and the value of a is 12.. App.jsx:12
```

>



Cloudy 13°C ENG IN Thu 20:30

EXPLORER ...

VIDEO 109

- > node_modules
- > public
- ✓ src
 - > assets
 - App_1.jsx
 - App.css
 - App.jsx
 - index.css
 - main.jsx
 - .eslintrc.cjs
 - .gitignore
 - index.html
 - package-lock.json
 - package.json
 - README.md
 - vite.config.js

src > App.jsx > App > useEffect() callback

```
1 import { useState, useEffect, useRef } from 'react'
2 import reactLogo from './assets/react.svg'
3 import viteLogo from '/vite.svg'
4 import './App.css'

5
6 function App() {
7   const [count, setCount] = useState(0)
8   const ref = useRef()

9
10  useEffect(() => [
11    console.log(`First rendering...`)
12    ref.current.style.backgroundColor = "red"
13  ], []);
14
15
16  return (
17    <>
18    <div>
19      <a href="https://vitejs.dev" target="_blank">
20        <img src={viteLogo} className="logo" alt="Vite logo" />
21      </a>
22      <a href="https://react.dev" target="_blank">
```

2



PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

8:42:29 pm [vite] hmr update /src/App.jsx (x6)



EXPLORER ...

VIDEO 109

- > node_modules
- > public
- src
 - > assets
 - App_1.jsx
 - App.css
 - App.jsx
 - index.css
 - main.jsx
 - .eslintrc.cjs
 - .gitignore
 - index.html
 - package-lock.json
 - package.json
 - README.md
 - vite.config.js

App.jsx x main.jsx

```
src > App.jsx > App
18     <a href="https://vitejs.dev" target="_blank">
19         <img src={viteLogo} className="logo" alt="Vite logo" />
20     </a>
21     <a href="https://react.dev" target="_blank">
22         <img src={reactLogo} className="logo react" alt="React logo" />
23     </a>
24 </div>
25 <h1>Vite + React</h1>
26 <div className="card">
27     <button ref={ref} onClick={() => setCount((count) => count + 1)}>
28         count is {count}
29     </button>
30     <p>
31         Edit <code>src/App.jsx</code> and save to test HMR
32     </p>
33 </div>
34 <p className="read-the-docs">
35     Click on the Vite and React logos to learn more
36 </p>
37 </>
38 )
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

8:42:29 pm [vite] hmr update /src/App.jsx (x6)



useRef - React Vite + React localhost:5173

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Vite + React

count is 6

Edit `src/App.jsx` and save to test HMR

Click on the Vite and React logos to learn more

Elements Console Sources Network Performance Security Memory Application Lighthouse Recorder > Default levels ▾ No Issues 2 hidden

Download the React DevTools for a better development experience: <https://reactjs.org/link/react-devtools>

First rendering.. react-dom_client.js?v=d02f0f87:21534 App.jsx:11

13°C Cloudy

Search

Cloudy ENG IN

Subscribed 20:13 Thu





EXPLORER

...

VIDEO 109

- > node_modules
- > public
- src
 - > assets
 - App_1.jsx
 - App.css
 - App.jsx
 - index.css
 - main.jsx
 - .eslintrc.cjs
 - .gitignore
 - index.html
 - package-lock.json
 - package.json
 - README.md
 - vite.config.js

> OUTLINE

> TIMELINE

> TASK EXPLORER

< 0 ▲ 0 ⌂ 0



GBP/INR

-0.31%

App.jsx

X

App_1.jsx

X

main.jsx

X

```
src > App.jsx > App
  24   </a>
  25   </div>
  26   <h1>Vite + React</h1>
  27   <div className="card">
  28     <button ref={btnRef} onClick={() => setCount((count) => count + 1)}>
  29       | count is {count}
  30       </button>
  31     <p>
  32       | Edit <code>src/App.jsx</code> and save to test HMR
  33     </p>
  34   </div>
  35   <p className="read-the-docs">
  36     | Click on the Vite and React logos to learn more
  37   </p>
  38   <button onClick={()=>[btnRef.current.style.display = "none"]}>Change me</button>
  39   </>
  40 }
  41 }
  42
  43 export default App
  44
```

3

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

8:44:39 pm [vite] hmr update /src/App.jsx

PORTS

node +



Ln 38, Col 65 Spaces: 2 UTF-8 LF



Search





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Vite + React



Edit `src/App.jsx` and save to test HMR

Click on the Vite and React logos to learn more

Change me



useRef - React Vite + React Vite | Next Generation Frontend Tool

react.dev/reference/react/useRef#examples-value Sigma Web Development GitHub - CodeWithHarr... Learn to code online - C... EJS with Express

Support Ukraine Help Provide Humanitarian Aid to Ukraine.

React react@18.2.0

Overview Hooks

use useCallback useContext useDebugValue useDeferredValue useEffect useId useImperativeHandle useInsertionEffect useLayoutEffect useMemo useOptimistic useReducer useRef useState

API REFERENCE > HOOKS >

useRef

useRef is a React Hook that lets you reference a value that's not needed for rendering.

```
const ref = useRef(initialValue)
```

- Reference
 - `useRef(initialValue)`
- Usage
 - Referencing a value with a ref
 - Manipulating the DOM with a ref
 - Avoiding recreating the ref contents
- Troubleshooting
 - I can't get a ref to a custom component

Reference

useRef(initialValue)

Call `useRef` at the top level of your component to declare a `ref`.

```
import { useRef } from 'react';
```

Is this page useful?

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Imp

useRef(initialValue)

Usage Referencing a value with a ref Manipulating the DOM with a ref Avoiding recreating the ref contents Troubleshooting I can't get a ref to a custom component



12°C Cloudy ENG IN Thu 2020