

완전한 ZERO COST CSS-IN-JS 를 구현하기 위한 여정

정보기술혁신연구소 소장
(주)데브파이브 대표

오정민

What are you using for styling in the frontend?



styled
components



Emotion



tailwindcss



Conclusion, All solution must be converted to **pure css**

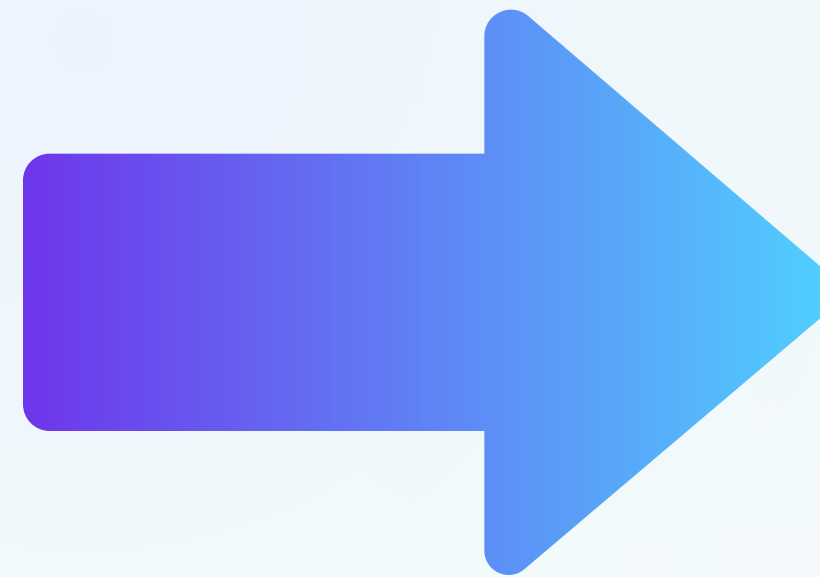
 styled
components

 tailwindcss

 **MUI**

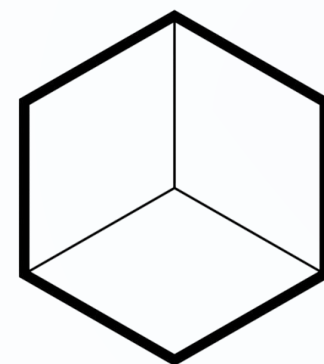
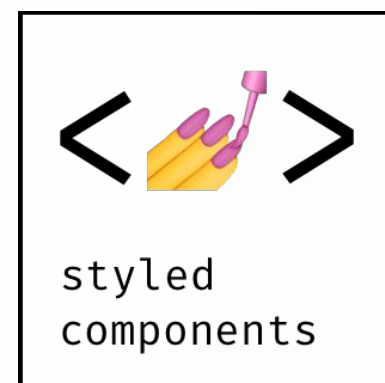
 **Emotion**

**Some
processing...**

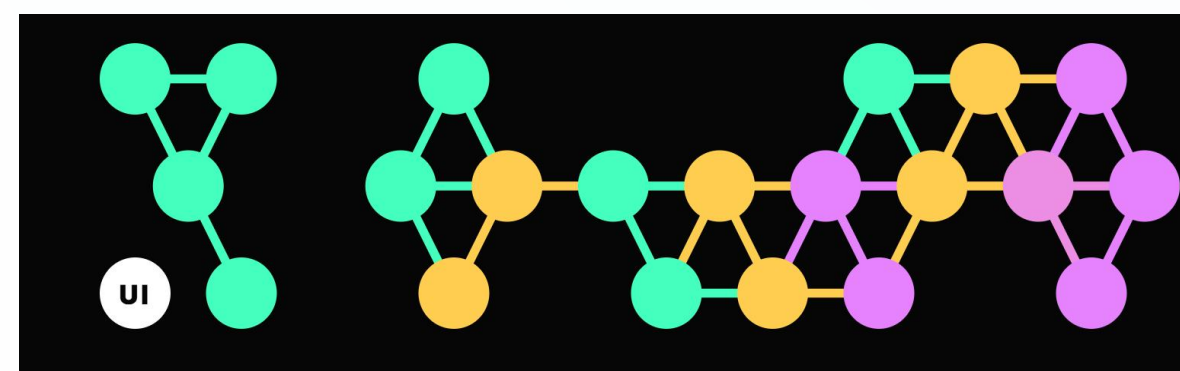


History of css-in-js

With UI Components

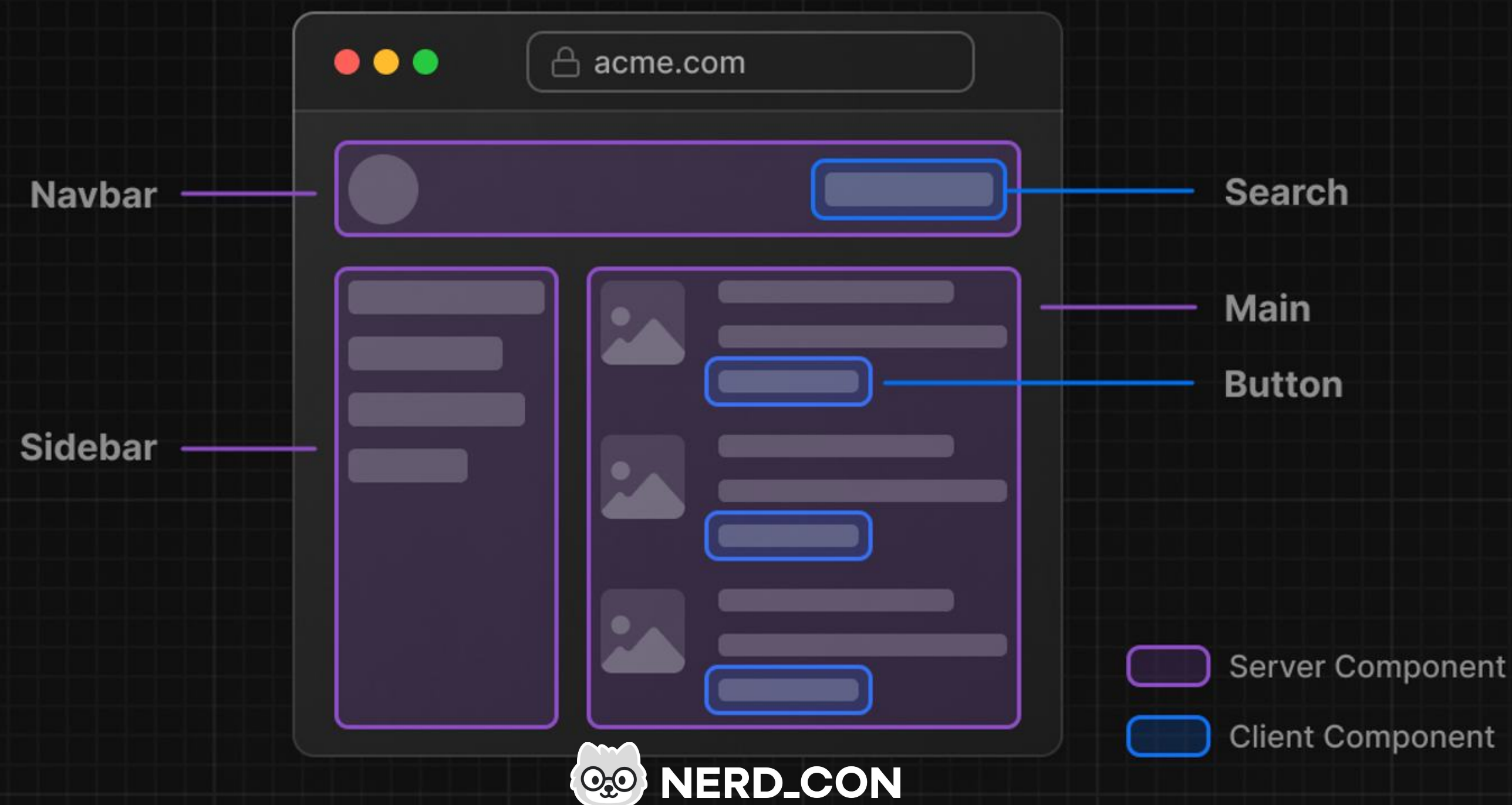


Emotion



A New Paradigm: Server Components

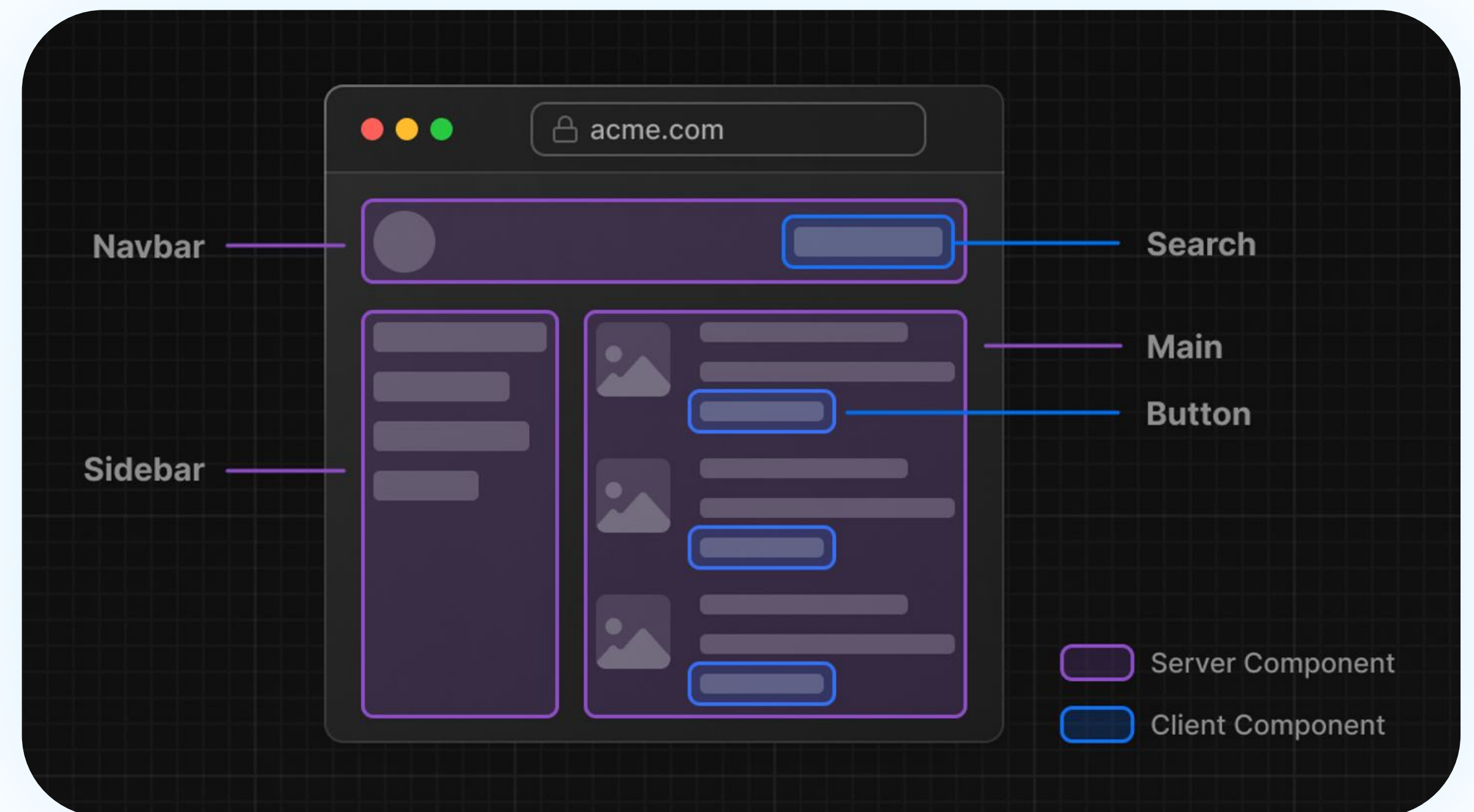
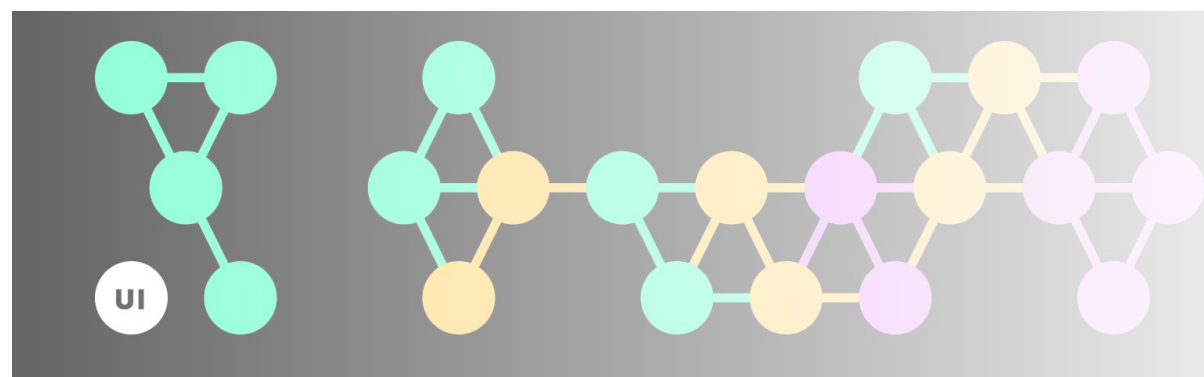
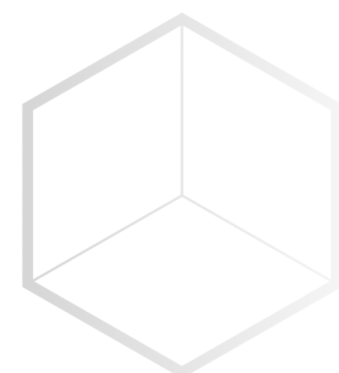
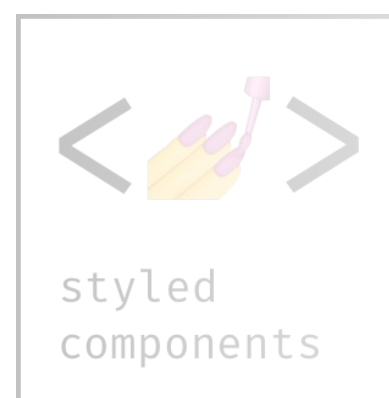
NEXT.js



A New Paradigm: Server Components



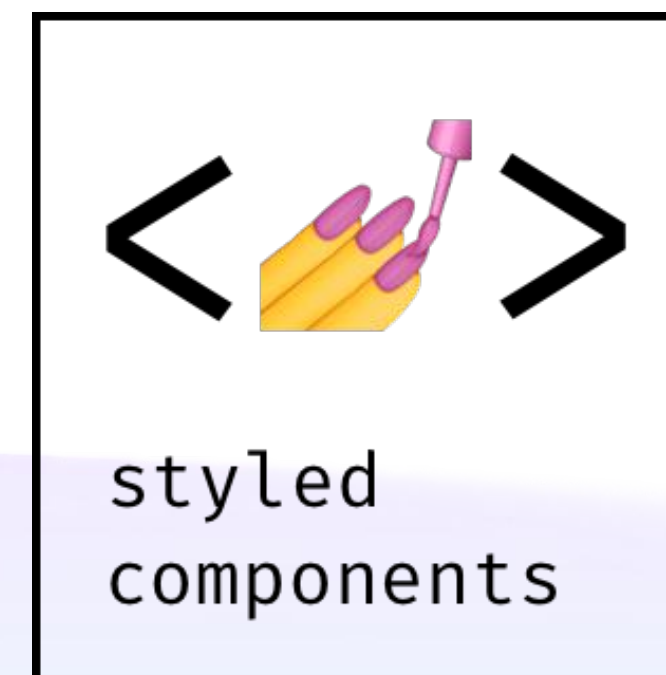
Emotion



Add “use client” to everything



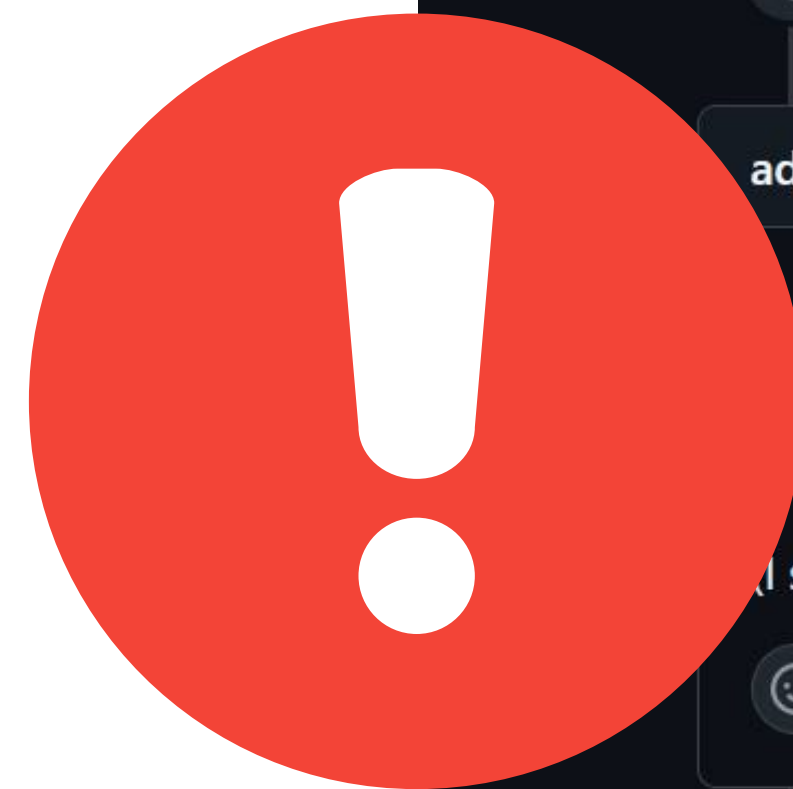
I can transform to RSC to **analyze the Syntax!**



The issue is
still open...



Emotion



Plans to support Next.js 13 - /app directory #2928

Open



fcisio opened on Oct 26, 2022 · edited by fcisio

Edits ▾ ⋮

The problem

Next JS just release their v13 publicly.
As seen in [their docs](#), `emotion` has not yet added support.

Is there any plan to add support in the near future?

Thanks.

👍 442 🚀 37 🗨️ 153



fcisio added `feature request` `needs triage` on Oct 26, 2022

adamrneary on Oct 26, 2022

It might be possible see about circling the wagons with the MUI and Vercel teams, as well, on this. MUI is very widely used (and some teams are paying!). I am not sure what the specific numbers are, but I have to imagine we have a very large contingent of MUI/Emotion users overlapping with Next.js. Having these two titans not work together is a miss.

(I suspect if getting this working needed some sponsorship, \$\$\$ could be found!)

👍 57



lachlanjc on Oct 26, 2022 · edited by lachlanjc

Edits ▾ ⋮

We're also super looking for this so [Theme UI](#) can support the app directory!

👍 42



NERD.CON

MidnightDesign mentioned this on Oct 26, 2022

We want **zero runtime** css-in-js



We want **zero runtime** css-in-js



Kuma UI

Write type-safe styles with ease using

panda

Get Started

Learn Panda

\$ npm i -D @pandacss/dev



```
const ThisIsTheBox = () => {  
  return (  
    <Box p={8} bg="blue" color="white">  
      Hello world  
    </Box>  
  );  
};
```

We want **zero runtime** css-in-js



***Zero-runtime
Stylesheets in
TypeScript.***



The styling system that powers
instagram.com

Get Started

Thinking in StyleX

But..

We love **css-in-js** with **Box**



DEVFIVE*

```
const ThisIsTheBox = () => {  
  return (  
    <Box p={8} bg="blue" color="white">  
      Hello world  
    </Box>  
  );  
};
```

Code has a **answer**

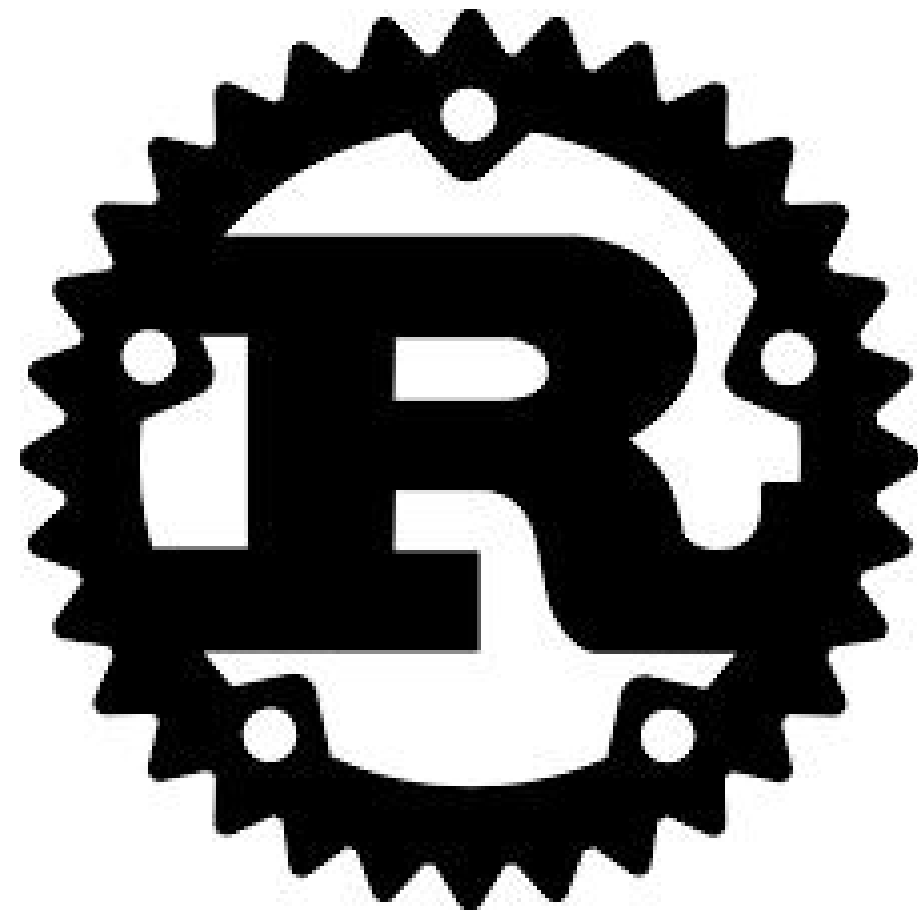


Kuma UI



```
const ThisIsTheBox = () => {  
  return (  
    <Box p={8} bg="blue" color="white">  
      Hello world  
    </Box>  
  );  
};
```

Performance is a key part of DX



What is the **Answer**?

“

”

The code does not change

So, The code has a “definitive results”

This means that We can **extract the css** from the code

```
1 <Box bg="red" w="100%" h="30px" />
```



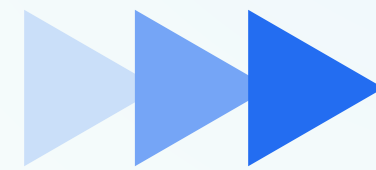
```
1 <Box className="d0 d1 d2" />
```

```
1 .d0 {  
2   background: red  
3 }  
4 .d1 {  
5   width: 100%  
6 }  
7 .d2 {  
8   height: 30px  
9 }
```

**Let's dive a little deeper.
Let's share a case
we encountered and solved.**

Dynamic

```
1 <Box bg={variable} />
```

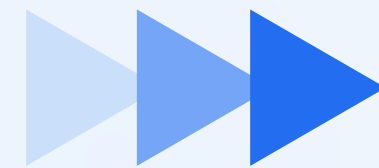


```
1 <Box className="d0" style={{"--d1": variable}} />
```

```
1 .d0 {  
2   background: var(--d1)  
3 }
```

Responsive

```
1 <Box bg={"red", "blue", "green"} />
```

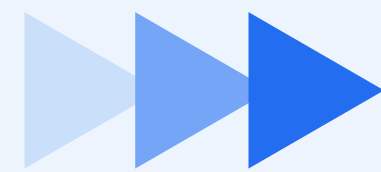


```
1 <Box className="d0 d1 d2" />
```

```
1 .d0 {  
2   background: red  
3 }  
4 @media (min-width: 720px){  
5   .d1 {  
6     background: blue  
7   }  
8 }  
9 @media (min-width: 1024px){  
10  .d2 {  
11    background: green  
12  }  
13 }
```

Conditional Operator

```
1 <Box bg={c ? a : "red"} />
```



```
1 <Box className={c ? "d0" : "d2"} style={{  
2   "--d1": a  
3 }} />
```

```
1 .d0 {  
2   background: var(--d1)  
3 }  
4 .d2 {  
5   background: red  
6 }  
7
```

```

reset_class_map();
assert_debug_snapshot!(ToBTreeSet::from(
  extract(
    "test.tsx",
    r#"import { Box } from "@devup-ui/core";
margin={a===1||a===2}&&b===3 && "1px"} />;

    ExtractOption {
      package: "@devup-ui/core".to_string(),
      css_file: None
    }
  )
  .unwrap()
));

set_class_map();
assert_debug_snapshot!(ToBTreeSet::from(
  extract(
    "test.tsx",
    r#"import {Box} from '@devup-ui/core'
    <Box _hover={{
      mx: 10
    }}
    <Box _hover={{
      mx: 20
    }} />

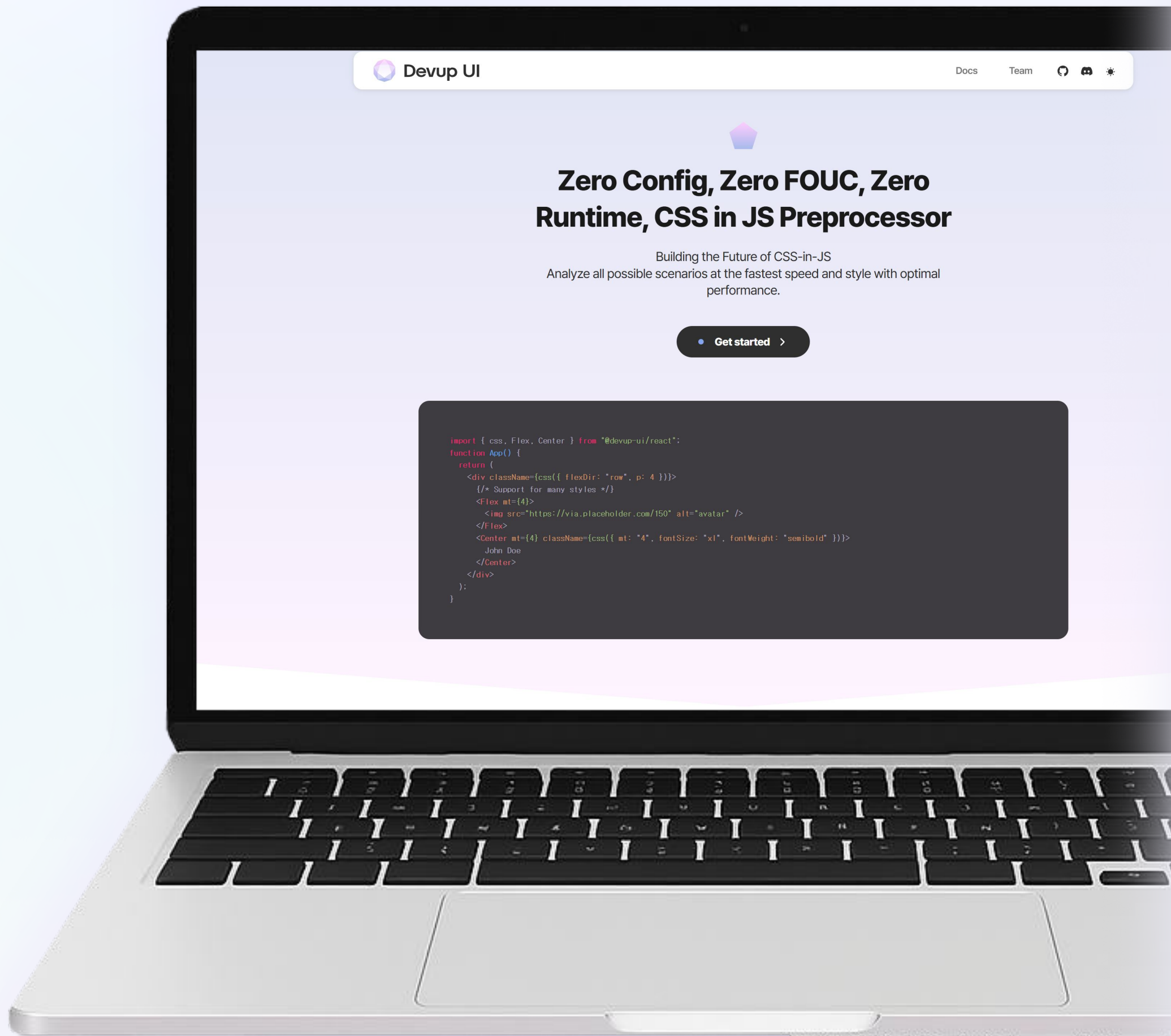
    ExtractOption {
      package: "@devup-ui/core".to_string(),
      css_file: None
    }
  )
  .unwrap()
));

reset_class_map();
assert_debug_snapshot!(ToBTreeSet::from(
  extract(
    "test.tsx",
    r#"import {Box} from '@devup-ui/core'
    <Box _hover={a===b && {
      mx: 1
    }} />
    ",
    ExtractOption {
      package: "@devup-ui/core".to_string(),
      css_file: None
    }
  )
  .unwrap()
));

```

Many Test Cases...

Performance is a key part of DX



Performance



Accessibility



Best Practices



SEO



Performance

Values are estimated and may vary. The [performance score is calculated](#) directly from these metrics. [See calculator.](#)

▲ 0–49

■ 50–89

● 90–100

METRICS

Expand view

● First Contentful Paint
0.6 s

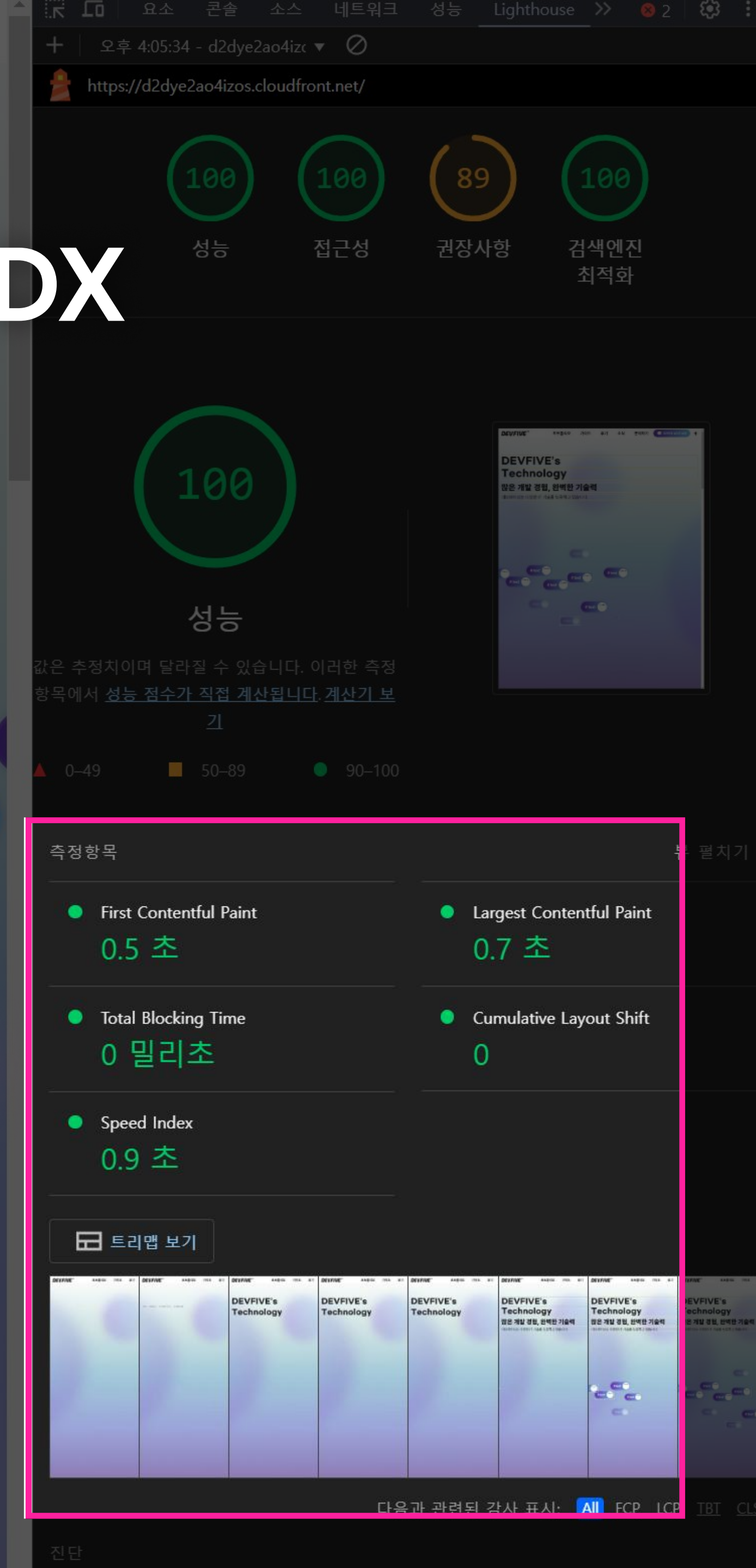
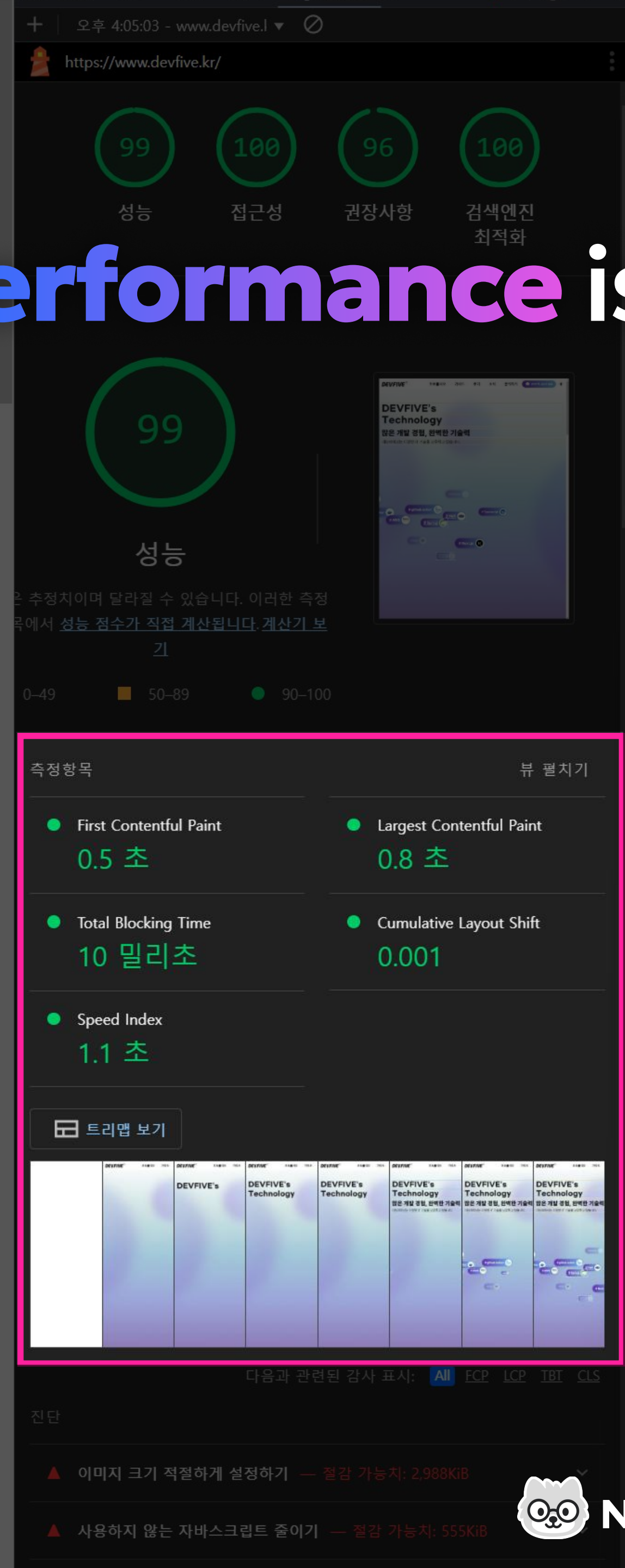
● Total Blocking Time
0 ms

● Speed Index
0.6 s

● Largest Contentful Paint
0.6 s

● Cumulative Layout Shift
0

Performance is a key part of DX





Kuma UI

Route (app)	Size	First Load JS
└─ ○ /	11.1 kB	116 kB
└─ ○ /_not-found	980 B	106 kB
+ First Load JS shared by all	105 kB	
└─ chunks/8e72c5bb-18ae6e7312e66e55.js	52.9 kB	
└─ chunks/939-91829b8bd6e53a31.js	50.5 kB	
└─ other shared chunks (total)	1.93 kB	
○ (Static) prerendered as static content		

kuma-ui: 16.309s
kuma-ui 57336596

16.309s



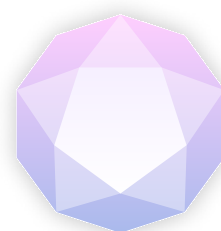
chakra

Route (app)	Size	First Load JS
└─ ○ /	5.05 kB	119 kB
└─ ○ /_not-found	980 B	106 kB
+ First Load JS shared by all	105 kB	
└─ chunks/8e72c5bb-5247b8444e224663.js	52.9 kB	
└─ chunks/939-9aaa4e6061054bf0.js	50.5 kB	
└─ other shared chunks (total)	1.93 kB	
○ (Static) prerendered as static content		

chakra-ui: 20.678s
chakra-ui 129580264

20.678s

Best Performance



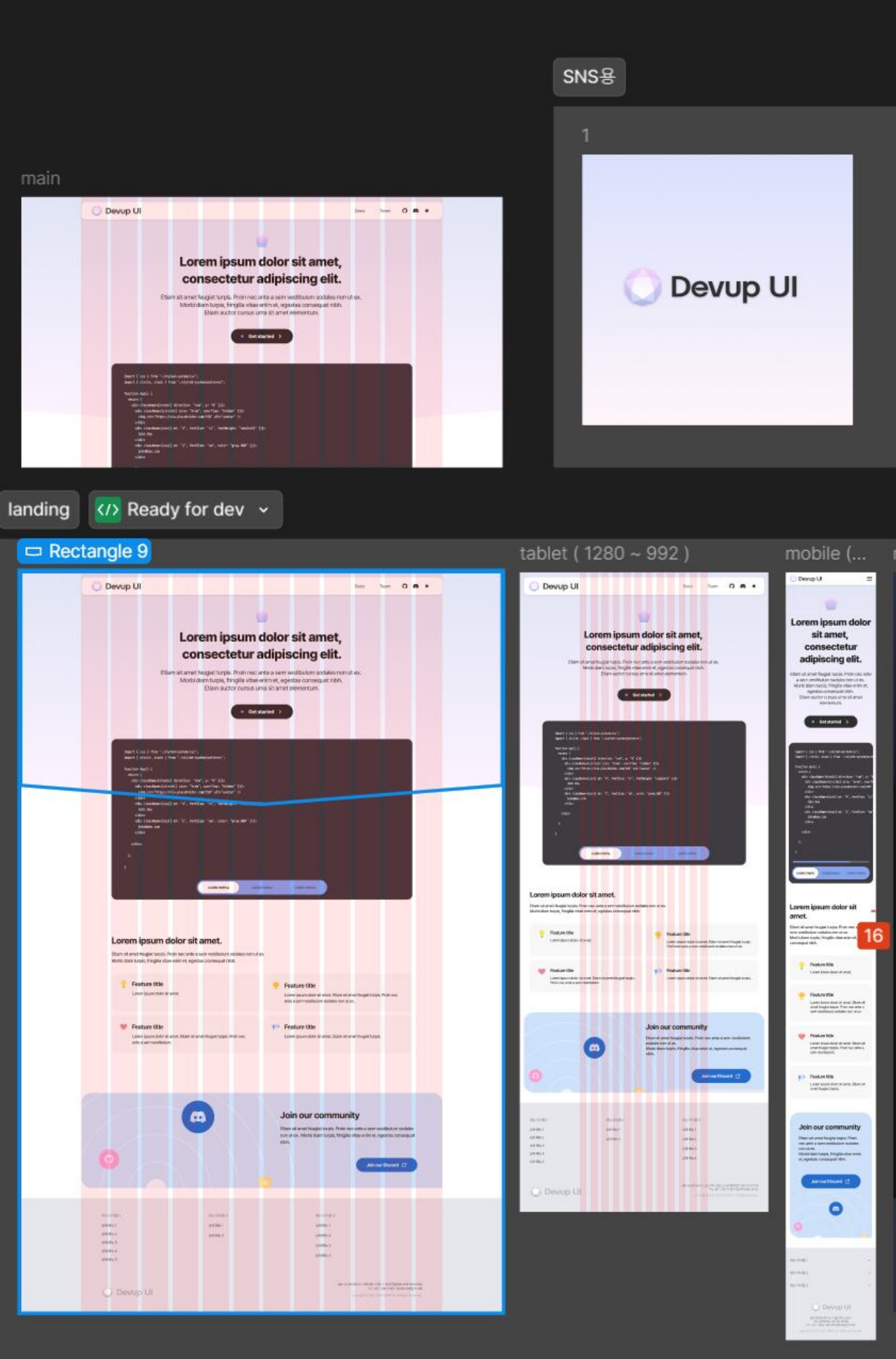
Devup UI

Route (app)	Size	First Load JS
└─ ○ /	518 B	106 kB
└─ ○ /_not-found	980 B	106 kB
+ First Load JS shared by all	105 kB	
└─ chunks/8e72c5bb-715cc390726661be.js	52.9 kB	
└─ chunks/939-018331b0b1370fb5.js	50.5 kB	
└─ other shared chunks (total)	1.97 kB	
○ (Static) prerendered as static content		

devup-ui: 13.595s
devup-ui 48037095

13.595s





```

45 );
46 }
47
48 </Text>
49 </Center>
50 <Flex w="520px" p="6px" alignItems="center" gap="10px" borderRadius="1000px" bg=
51 <Box w="162.67px" h="46px" pos="absolute" left="6px" top="6px" borderRadius="1
52 <Center p="12px 34px" gap="10px" flex="1" borderRadius="1000px">
53   <Text color="$text" typography="buttonM">
54     code menu
55   </Text>
56 </Center>
57 <Center p="12px 34px" gap="10px" flex="1" borderRadius="1000px">
58   <Text color="$text" opacity="0.6" typography="buttonM">
59     code menu
60   </Text>
61 </Center>
62 <Center p="12px 34px" gap="10px" flex="1" borderRadius="1000px">
63   <Text color="$text" opacity="0.6" typography="buttonM">
64     code menu
65   </Text>
66 </Center>
67 </Flex>
68 </VStack>
69 <VStack p="40px 360px 120px" gap="40px">
70   <VStack w="805px" gap="16px">
71     <Text color="$title" typography="h4">
72       Lorem ipsum dolor sit amet.
73     </Text>
74     <Text color="$text" typography="textL">
75       Etiam sit amet feugiat turpis. Proin nec ante a sem vestibulum sodales non ut
76 Morbi diam turpis, fringilla vitae enim et, egestas consequat nibh.
77     </Text>
78   </VStack>
79   <VStack gap="16px">
80     <Flex alignItems="center" gap="16px">
81       <Flex p="24px" gap="10px" flex="1" borderRadius="20px" bg="$cardBg">
82         <Flex alignItems="center" gap="10px" px="8px">
83           <Image boxSize="21.333px" src="010.idea" fill="var(--Con-E-E-lemon-1, #
84         </Flex>
85         <VStack gap="10px" flex="1">
86           <Text color="$title" typography="h6">
87             Feature title
88           </Text>
89           <Text w="484px" flex="1" color="$text" typography="body">
90             Lorem ipsum dolor sit amet.
91           </Text>
92         </VStack>
93       </Flex>
94       <Flex gap="10px" flex="1" borderRadius="20px" bg="$cardBg" px="24px">
95         <Flex alignItems="center" gap="10px" px="8px">
96           <Image boxSize="32px" src="019.trophy" w="16px" h="21.333px" fill="var(--
97         </Flex>
98         <VStack gap="10px" flex="1">
99           <Text color="$title" typography="h6">
100             Feature title
101           </Text>
102           <Text w="484px" flex="1" color="$text" typography="body">
103             Lorem ipsum dolor sit amet. Etiam sit amet feugiat turpis. Proin nec a
104           </Text>
105         </VStack>
106       </Flex>
107     </VStack>
108   </VStack>
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115         <VStack gap="10px" flex="1">
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133             Lorem ipsum dolor sit amet. Etiam sit amet feugiat turpis. Proin nec a
134           </Text>
135         </VStack>
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```

And...

Best Productivity

Devup UI

Thank You!

정보기술혁신연구소 소장
(주)데브파이브 대표

오정민

