



Next Js - (Client Side)

Next js is the advancement of React Js. Next Js was introduced to overcome the drawbacks of React Js

Now what does next js provides

1. Server side rendering - Get's rid of SEO problems
2. API routes - Single codebase with frontend and backend
3. File based routing (no need for react-router-dom)
4. Bundle size optimisations, Static site generation
5. Maintained by the Vercel team

How to setup a Next js application ?

```
npx create-next-app@latest
```

```

1  const signin = () => {
2    // ...
3    <div className="flex justify-center">
4      <a
5        href="#"
6        className="block max-w-sm p-6 bg-white border border-gray-200 rounded-lg shadow hover:bg-gray-100"
7      >
8        <div>
9          <div className="px-10">
10             <div className="text-3xl font-extrabold">Sign in</div>
11           </div>
12           <div className="pt-2">
13             <LabelledInput label="Username" placeholder="nitin@gmail.com" />
14             <LabelledInput
15               label="Password"
16               type={"password"}
17               placeholder="123456"
18             />
19           </div>
20           <button
21             type="button"
22             className="mt-8 w-full text-white bg-gray-800 focus:ring-4 focus:ring-gray-300 font-medium rounded-lg text-sm px-5 py-2 5 me-2 mb-2"
23           >

```

We can see the folder where we have different folder for signin and signup page. This is called **File based routing**.

One of the main drawback of react was when we were rendering the react on the web. It was not showing the HTML part. Which results in less **SEO optimise website**.

Where is comparing to the **Next Js**, we are rendering the whole HTML code over the web and which helps in optimising the website and help it in finding on the web easily.

Sign in

Username

nitin@gmail.com

Password

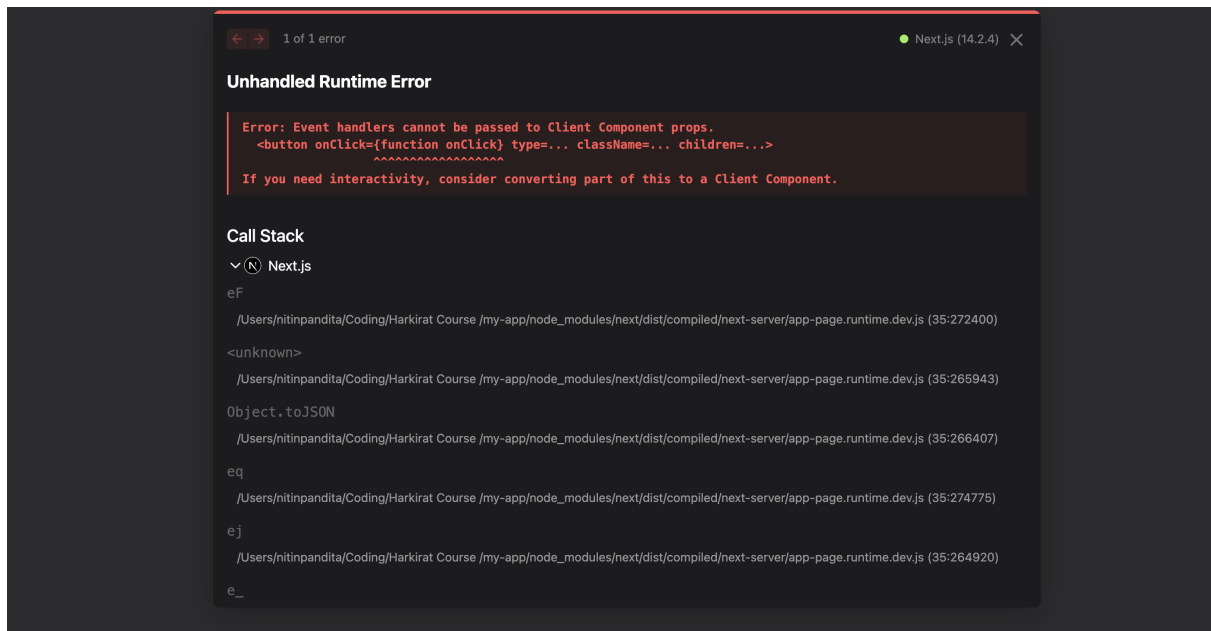
123456

Sign in

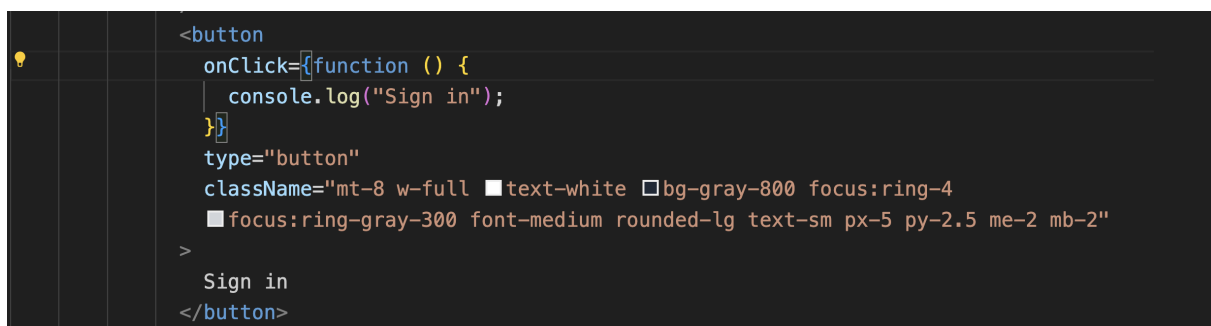
Name	Headers	Preview	Response	Initiator	Timing
signin			<pre> <html> <head> <meta charset="utf-8"/> <meta name="viewport" content="width=device-width, height=device-height"> <link rel="stylesheet" href="/_next/static/css/app.css"> <script src="/_next/static/chunks/main-app.js?v=171928..."> <script src="/_next/static/chunks/app-pages-internals.js"> <title>Create Next App</title> <meta name="description" content="Generated by create next app"> <link rel="icon" href="/favicon.ico" type="image/x-icon"> <meta name="next-size-adjust" /> <script src="/_next/static/chunks/polyfills.js" no-module="true"> </head> <body class="__className_aaf875"> <div class="h-screen flex justify-center flex-col"> <div class="flex justify-center"> <div> <div class="px-10"> <div class="text-3xl font-extrabold">Sign in</div> </div> <div class="pt-2"> <div> <div class="text-sm font-medium">Username</div> <input type="text" value="nitin@gmail.com"> </div> <div> <div class="text-sm font-medium">Password</div> <input type="password" value="123456"> </div> <div> <button type="button" class="mt-8 w-full text-white bg-gray-800 focus:ring-4 focus:ring-gray-300 font-medium rounded-lg text-sm px-5 py-2 5 me-2 mb-2">Sign in</button> </div> </div> </div> </div> </div> </body> </html> </pre>		

Now if `GoogleBot` tries to scrape your page, it'll understand that this is a `signup` page without running any Javascript.

So Let's say whatever UI we have written if we add a `onClick` function in our UI the Next Js will give us an error



Now why we are getting an error, it is because the Next Js has the concept of Client and Server Components.

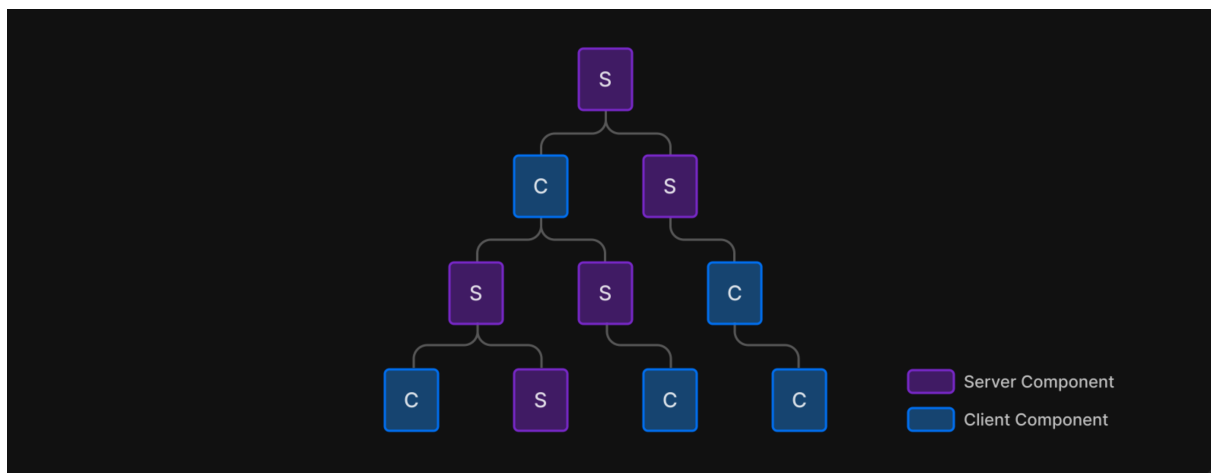


Here by default we are currently at Server Components, so there is no concept of `onClick` on the server side so to get rid of this issue we can use "use client" for it.

```

"use client";
export function SigninComponent() {
  return (
    <div className="h-screen flex justify-center flex-col">
      <div className="flex justify-center">
        <a
          href="#"
          className="block max-w-sm p-6 bg-white border border-gray-200 rounded-lg shadow
            hover:bg-gray-100 "
        >
          <div>
            <div className="px-10">

```



on Component-level Client and Server Rendering makes it seem that client component can have children that are server components is this really the case? And if so how does NextJs go about figuring out what the children are of a client component without rendering it first.