

Programmatic Navigation in Next.js

Navigation:

Navigation is simply moving from one page to another within a website or web application. Think of it like traveling from one place to another on the internet.

Navigation refers to the process of moving between different pages or routes within a web application. In the context of Next.js, navigation typically involves moving between different pages within a Next.js application, which follows file-based routing

File based routing:

In Next.js, the structure of your project's folders and files determines the URLs of your web pages. Each page typically corresponds to a specific file in your project. So, when you visit a URL, Next.js looks for the corresponding file to display the page.

Users navigate through a web application either by manually entering URLs in the browser's address bar, clicking on UI elements like links, or through programmatic navigation, such as after completing an action.

Programmatic Navigation:

Programmatic navigation involves using code to navigate between pages or routes within a web application. This can be triggered by user actions, such as clicking a button or submitting a form, or by application logic. In Next.js, programmatic navigation can be achieved using the built-in router provided by the Next.js framework.

UI Elements for Navigation:

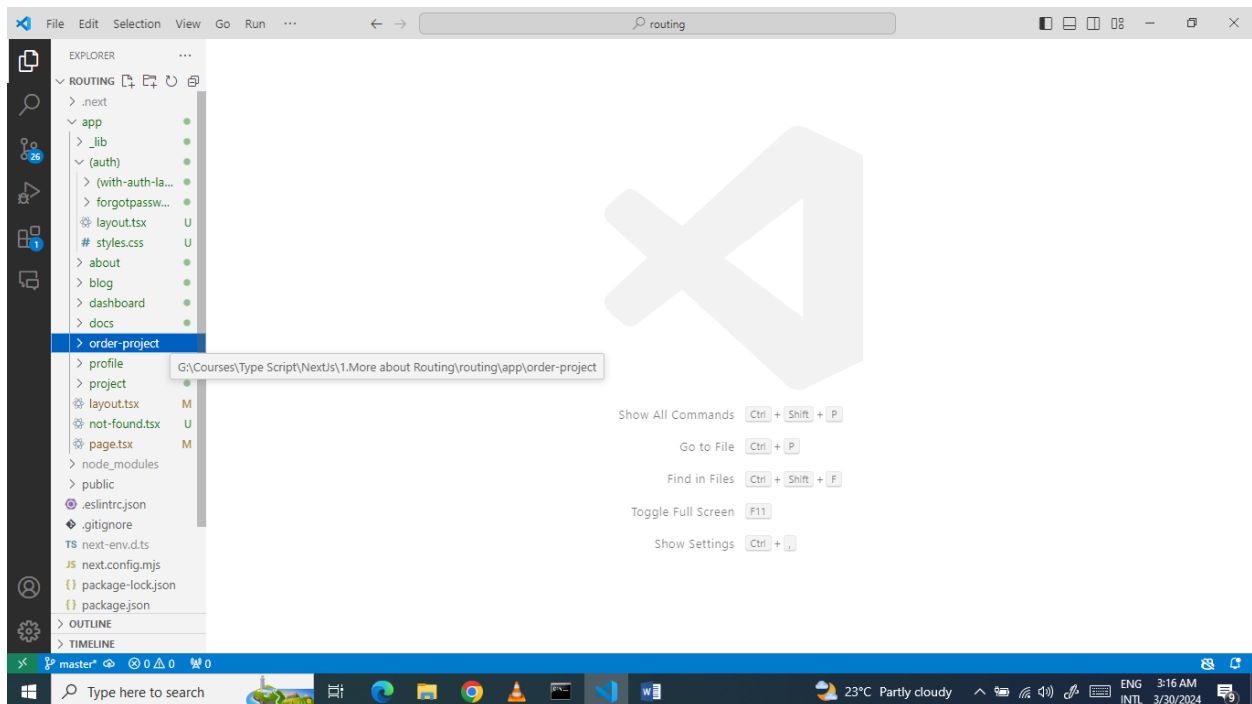
Instead of typing URLs, users often navigate through a website by clicking on buttons or links. These are called UI elements. Clicking on them directs users to different pages or sections of the website.

UI Navigation:

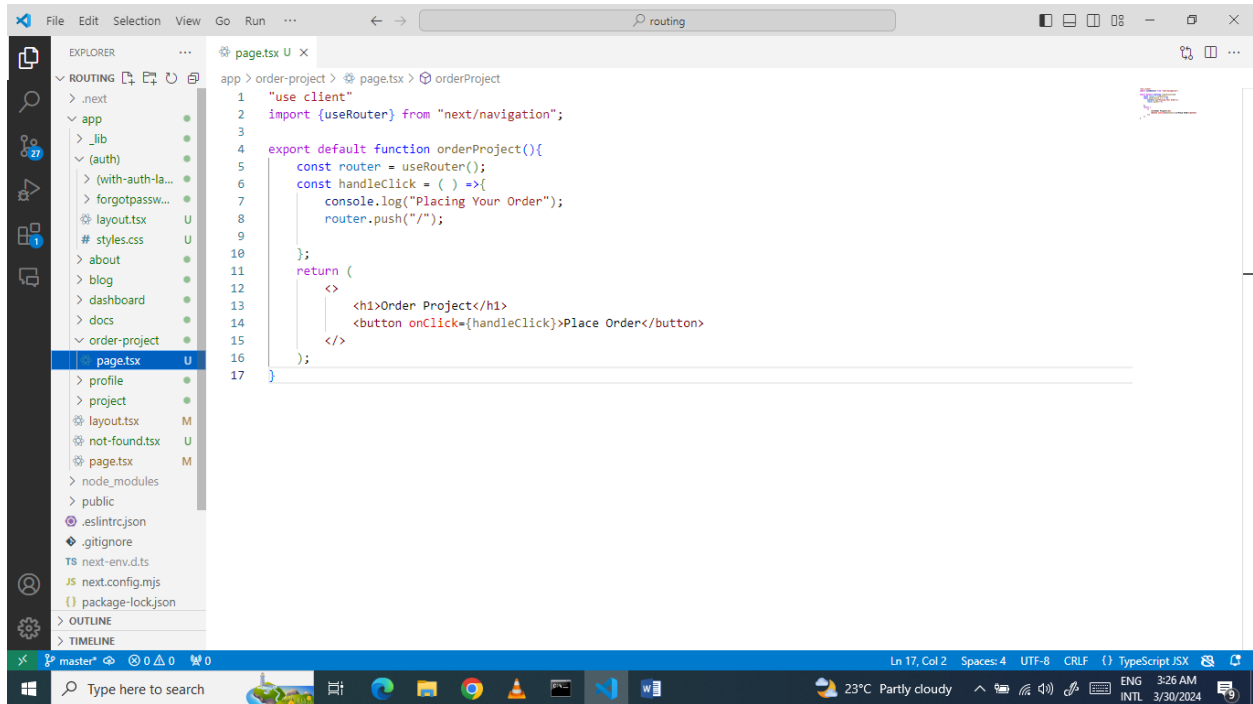
This refers to the process of moving from one page to another within a website programmatically, typically triggered by user interactions with UI elements. For instance, if you're on the home page of a website and you click on a "Place Order" button, you expect to be taken to the checkout page.

" Programmatic Navigation in Next.js : Step-by-Step Guide with Screenshots"

"Please create an 'order-project' file inside the 'app' folder."



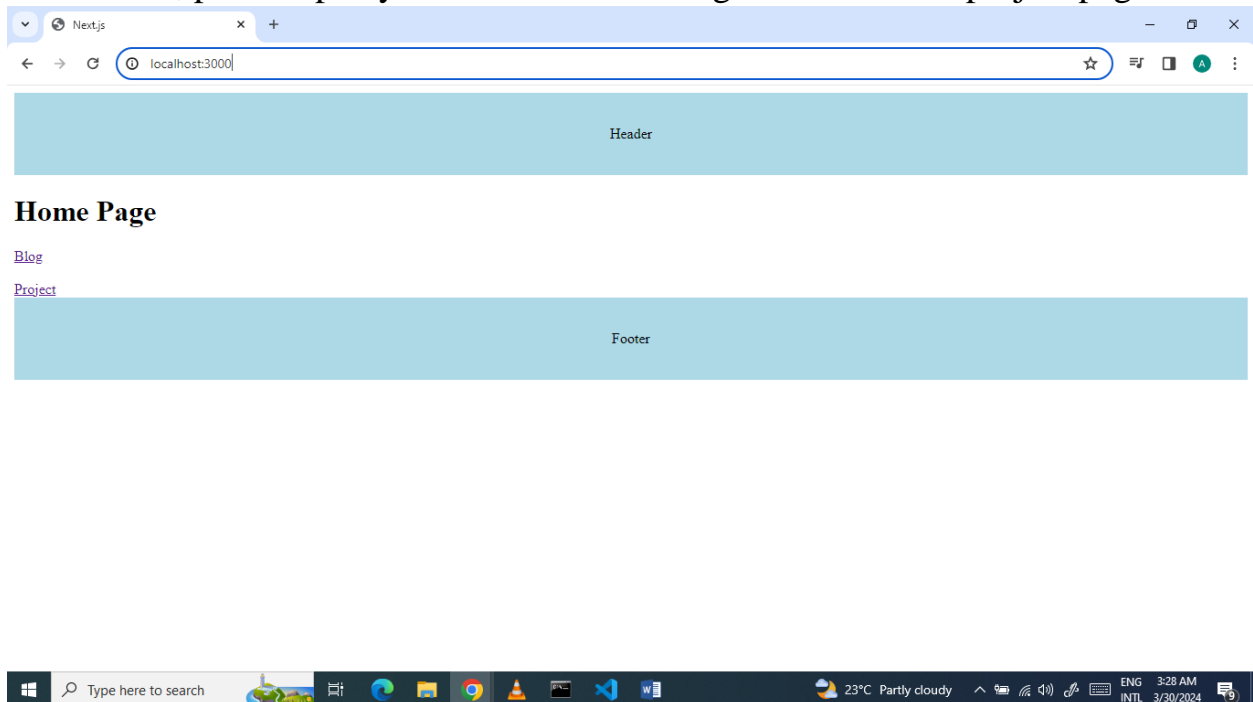
"Inside the order-project folder, create a page.tsx file and add React components."



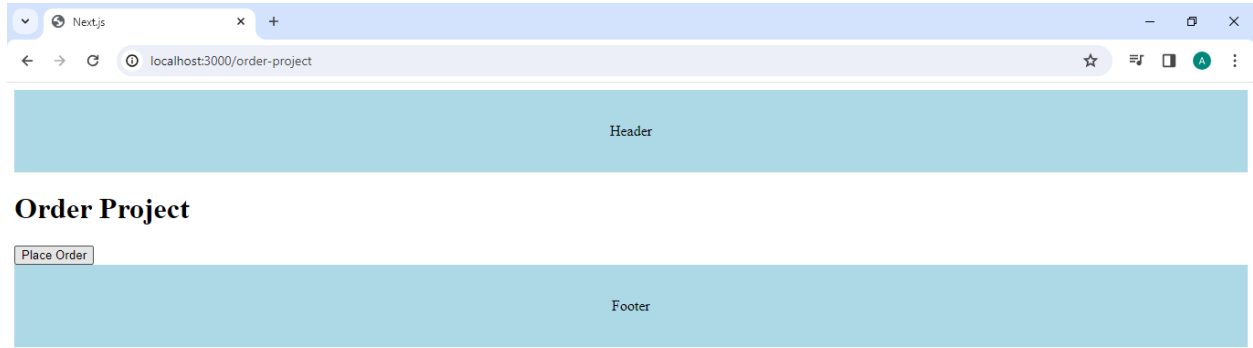
The screenshot shows the Visual Studio Code editor with the Explorer sidebar on the left. The Explorer shows the file structure of a project, with the 'order-project' folder selected. Inside 'order-project', a new file 'page.tsx' has been created and is highlighted. The main editor area shows the code for 'page.tsx'.

```
1 "use client"
2 import {useRouter} from "next/navigation";
3
4 export default function orderProject(){
5   const router = useRouter();
6   const handleClick = () =>{
7     console.log("Placing Your Order");
8     router.push("/");
9   };
10
11   return (
12     <>
13       <h1>Order Project</h1>
14       <button onClick={handleClick}>Place Order</button>
15     </>
16   );
17 }
```

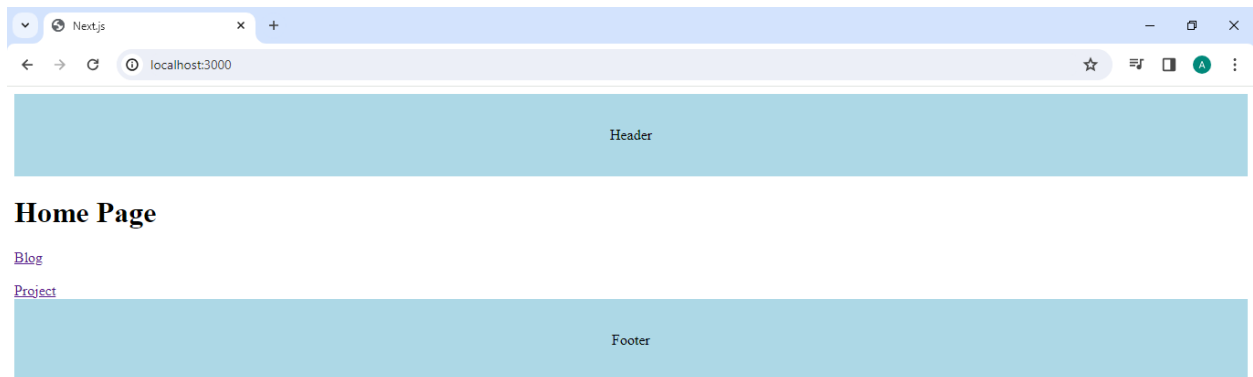
"Now, please open your browser and navigate to the order project page."



"Navigate to the order-project page after navigating to the order page. You will see the **Place Order** button below labeled 'Order Project'."



By clicking on the "Place Order" button, you will navigate to the Home Page as per our code in the page.tsx file inside the order-project folder.



"The above discussion about programmatic navigation in Next.js, which involves using code to move between pages or routes within a web application, explains the concept of navigation, file-based routing, programmatic navigation, and UI elements for navigation. Programmatic navigation is achieved through user interactions or application logic and is facilitated by the Next.js framework's built-in router. Additionally, it provides step-by-step guidelines for implementing programmatic navigation in a Next.js application, including creating files and components, and navigating between pages."