

Experiment 8

Aim: Create React Sidebar Navigation Menu for a webpage. Implement the concept of React Hooks for backward compatibility and faster user experience.

1) In components folder, make *Navbar.js*, and design the Navbar

```
import React, { useState } from "react";
import * as FaIcons from "react-icons/fa";
import * as AiIcons from "react-icons/ai";
import { Link } from "react-router-dom";
import { SidebarData } from "../SidebarData.js";
import "../css/Nav.css";
import { IconContext } from "react-icons";

function Navbar() {
  const [sidebar, setSidebar] = useState(false);
  const showSidebar = () => setSidebar(!sidebar);
  return (
    <>
      <IconContext.Provider value={{ color: "#fff" }}>
        <div className="navbar">
          <Link to="#" className="menu-bars">
            <FaIcons.FaBars onClick={showSidebar} />
          </Link>
          <span class="rollnumber">21BIT005 : React Sidebar</span>
        </div>
        <nav className={sidebar ? "nav-menu active" : "nav-menu"}>
          <ul className="nav-menu-items" onClick={showSidebar}>
            <li className="navbar-toggle">
              <Link to="#" className="menu-bars">
                <AiIcons.AiOutlineClose />
              </Link>
            </li>
            {SidebarData.map((item, index) => {
              return (
                <li key={index} className={item.cName}>
                  <Link to={item.path}>
                    {item.icon}
                  <span>{item.title}</span>
                </Link>
              </li>
            )};
          </ul>
        </nav>
      </IconContext.Provider>
    </>
  );
}
export default Navbar;
```

2) Give CSS to Navbar

```

.navbar {
  background-color: #060b26;
  height: 80px;
  display: flex;
  justify-content: start;
  align-items: center;
}
.menu-bars {
  margin-left: 2rem;
  font-size: 2rem;
  background: none;
}

.nav-menu {
  background-color: #060b26;
  width: 250px;
  height: 100vh;
  display: flex;
  justify-content: center;
  position: fixed;
  top: 0;
  left: -100%;
  transition: 850ms;
}

.nav-menu.active {
  left: 0;
  transition: 350ms;
}

.nav-text {
  display: flex;
  justify-content: start;
  align-items: center;
  padding: 8px 0px 8px 16px;
  list-style: none;
  height: 60px;
}

.nav-text a {
  text-decoration: none;
  color: #f5f5f5;
  font-size: 18px;
  width: 95%;
  height: 100%;
  display: flex;
  align-items: center;
  padding: 0 16px;
  border-radius: 4px;
}

.nav-text a:hover {
  background-color: #1a83ff;
}

.nav-menu-items {
  width: 100%;
}

.navbar-toggle {
  background-color: #060b26;
  width: 100%;
  height: 80px;
  display: flex;
  justify-content: start;
  align-items: center;
}

span {
  margin-left: 16px;
}

.rollnumber {
  padding-left: 450px;
  color: white;
  font-weight: bold;
  font-size: x-large;
}

```

3) Make a *Sidebar.js* in components folder, to design the sidebar

```

import React from "react";
import * as FaIcons from "react-icons/fa";
import * as AiIcons from "react-icons/ai";
import * as IoIcons from "react-icons/io";
export const SidebarData = [
  {
    title: "Home",
    path: "/",
    icon: <AiIcons.AiFillHome />,
    cName: "nav-text",
  },
  {
    title: "Reports",
    path: "/reports",
    icon: <IoIcons.IoIosPaper />,
    cName: "nav-text",
  },
  {
    title: "Products",
    path: "/products",
    icon: <FaIcons.FaCartPlus />,
    cName: "nav-text",
  },
  {
    title: "Team",
    path: "/team",
    icon: <IoIcons.IoMdPeople />,
    cName: "nav-text",
  },
  {
    title: "Messages",
    path: "/messages",
    icon: <FaIcons.FaEnvelopeOpenText />,
    cName: "nav-text",
  },
];

```

4) Make a pages folder, and add the pages of the sidebar

```
JS home.js U ●
src > pages > JS home.js > ...
1  import React from "react";
2
3  const Home = () => {
4    return (
5      <div style={{ textAlign: 'center' }}>
6        <h1>This is the Home page 🏠</h1>
7      </div>
8    );
9  };
10
11 export default Home;
```

```
JS product.js U ●
src > pages > JS product.js > ...
1  import React from "react";
2  const Products = () => {
3    return (
4      <div style={{ textAlign: 'center' }}>
5        <h1>This is the Products page 📦</h1>
6      </div>
7    );
8  };
9
10 export default Products;
```

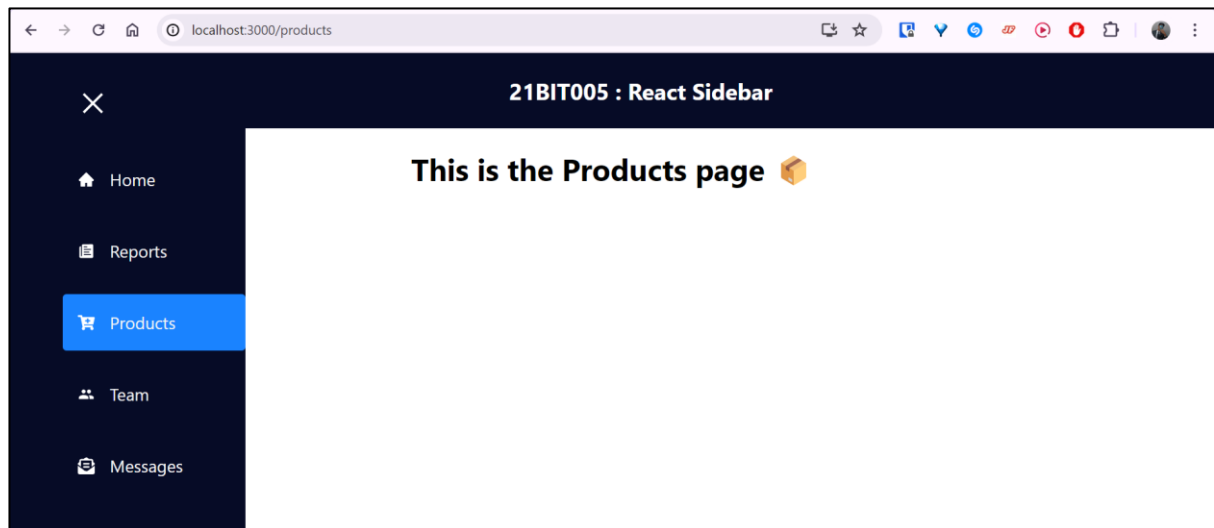
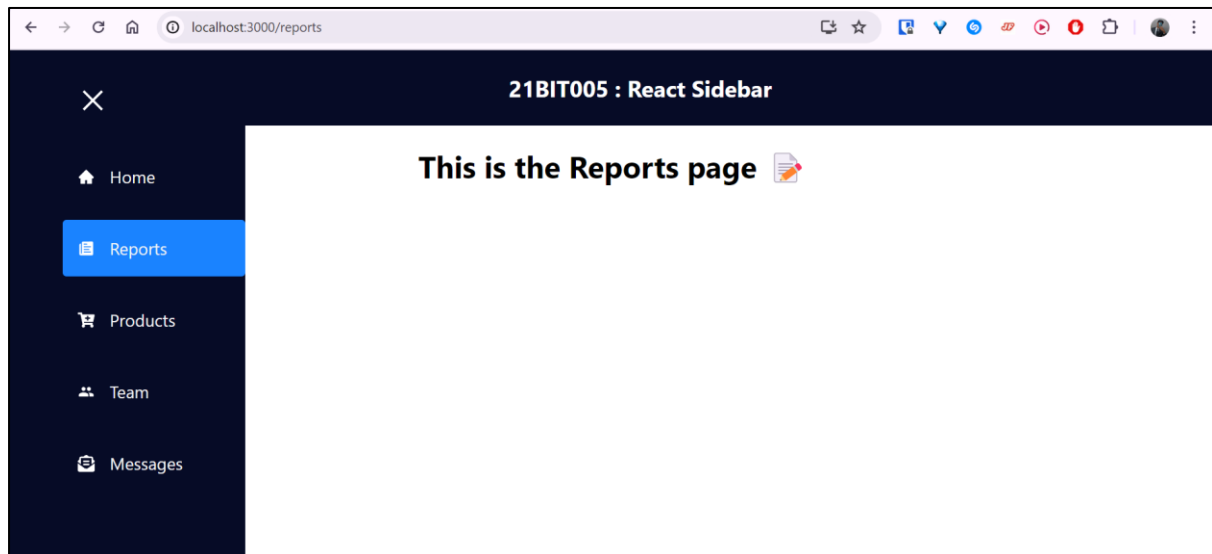
```
JS report.js U ●
src > pages > JS report.js > ...
1  import React from "react";
2  const Reports = () => {
3    return (
4      <div style={{ textAlign: 'center' }}>
5        <h1>This is the Reports page 📄</h1>
6      </div>
7    );
8  };
9
10 export default Reports;
```

```
▼ pages
JS home.js
JS product.js
JS report.js
```

5) Update the *App.js* file

```
JS App.js M X
src > JS App.js > ...
1  import React from "react";
2  import { BrowserRouter as Router, Route, Routes } from "react-router-dom";
3  import Navbar from "../components/Navbar";
4  import Home from "../pages/home";
5  import Reports from "../pages/report";
6  import Products from "../pages/product";
7  import "../App.css"
8
9  function App() {
10   return (
11     <div>
12       <Router>
13         <Navbar />
14         <Routes>
15           <Route path="/" element={<Home />} />
16           <Route path="/reports" element={<Reports />} />
17           <Route path="/products" element={<Products />} />
18         </Routes>
19       </Router>
20     </div>
21   );
22 }
23
24 export default App;
```

Output



Discussions: This experiment demonstrated the creation of a React sidebar navigation menu, enhancing webpage accessibility. Utilizing React Hooks ensures faster user interaction and maintains compatibility across different React versions.