React- Day -6 : Router:

react-router-dom

What is Router:

The concept of a router refers to a **mechanism or library** that **helps manage navigation** and the changing of views **in a single-page application (SPA)**.

React Router is the most commonly used routing library for React applications. It enables the creation of dynamic and navigable user interfaces by allowing developers **to define routes and handle different views or components based on the URL.**

React Router DOM:

It is a **library for handling routing** in React applicationsIt is a process or a way of navigating to the different pages of the application based on the user request **without reloading the webpage.**

It provides a way to create single-page applications (SPAs) with multiple views.

Rendering the appropriate components based on the current URL

Structure for routing:

BrouserRouter,Routes, Link, Route, URL params

```
<BrouserRouter>
    <Routes>
        <Route path='/'  element={<Home />} />
    </Routes>
</BrouserRouter>
```

otherComponents:

<link to='/'> or <NavLink> **elements** and js-> navigate()

useNavigate hook

Diff between NavLink & Link tag:

    link :

        It's used to create a hyperlink to navigate to a specific route.

    NavLink:

        It allows you to apply styles or other effects based on whether the link is currently active.

    Nomatch Nested route & Outlet -> example should be given to learners.

1. Install and setup of routes (npm i react-router-dom)

2. Configure (Eg:simple home page and about page)

3. Link (Navigate one component to another) <Navbar /> <nav>

4. Navlink (especially for css)

5. useNavigate() Hook

6. No match route (very important in real time(page not found), **path= '*'**)

7. Nested Routing & outlet(It is used **to render child routes within a parent route**.) (path='name' **should not use '/name')**

(outlet)

8. Dynamic Routes(params path='/user/**:userId**)