

Day 15 – [9th July 2025]

TOPICS COVERED

React Router DOM (Page Navigation):

React Router DOM is a library used in React for handling navigation between components (pages) without reloading the entire webpage. It's an essential part of making single-page applications (SPAs).

Installation:

```
npm install react-router-dom
```

Components Used:

- `<BrowserRouter>` – wraps the whole app for routing
- `<Routes>` – container for all routes
- `<Route>` – defines each route and its component
- `<Link>` – used for navigation (instead of `<a>`)

Example:

```
import { BrowserRouter, Routes, Route, Link } from "react-router-dom";
import Home from "./Home";
import About from "./About";
function App() {
  return (
    <BrowserRouter>
      <nav>
        <Link to="/">Home</Link> | <Link to="/about">About</Link>
      </nav>
      <Routes>
        <Route path="/" element={ <Home /> } />
        <Route path="/about" element={ <About /> } />
      </Routes>
    </BrowserRouter>
  );
}
```

Reading Input Data using useState (Controlled Components):

In React, we use useState to store and manage input data from the user.

Example:

```
import { useState } from "react";

function InputForm() {
  const [name, setName] = useState("");
  function handleChange(event) {
    setName(event.target.value);
  }
  function handleSubmit(e) {
    e.preventDefault();
    alert(`Hello, ${name}`);
  }
  return (
    <form onSubmit={handleSubmit}>
      <input
        type="text"
        placeholder="Enter your name"
        value={name}
        onChange={handleChange}
      />
      <button type="submit">Submit</button>
    </form>
  );
}
```

What's Happening:

- `value={name}` binds the input to state (controlled component).
- `onChange` updates state when user types.
- `handleSubmit` reads the data and uses it.

TOOLS USED:

VS Code

React development server (npm run dev)

React Router DOM

Browser (to test routes and forms)