

# Topic : Dynamic Routing

---

## Assignment: Dynamic User Profile Application

### Scenario:

You are tasked with building a simple User Profile Application where users can view a list of users and click on a user's name to see the detailed profile.

Each user will have their own dynamic route based on their ID. This assignment will help you practice dynamic routing in React with TypeScript using react-router-dom.

### Requirements:

- Project Setup:
  - Create a new React project with a TypeScript template and name it UserProfileApp.
  - Install react-router-dom:  
`npm install react-router-dom`
- Component Structure:
- UserList Component:
  - This component will display a list of users.
  - Each user's name should be a clickable link that leads to the detailed profile page using dynamic routing.
- UserProfile Component:
  - This component will display the detailed profile of the selected user, based on the dynamic ID from the URL.

### Tasks:

- Create a list of users with basic details such as name, email, and ID.
- Use react-router-dom to enable dynamic routing.

- When a user clicks on a name from the UserList, they should be taken to the corresponding UserProfile page, which displays their name and email.
  - Example of Routes:
    - /users: Displays the list of users.
    - /users/:id: Displays the profile of a specific user based on their ID.
  - Expected Outcome:
    - Users can navigate to individual profile pages by clicking on user names, which are dynamically routed.
-