Topic : URL parameters

Assignment: Product Details Page

Scenario:

You are tasked with building a simple product catalog where users can view the details of individual products by navigating to different URLs. The application will make use of URL parameters to dynamically display product details based on the product ID.

Requirements:

➤ Project Setup:
- Create a new React project with TypeScript and name it ProductCatalog.
- Install react-router-dom for routing:

  npm install react-router-dom

➤ Component Structure:
o Create a ProductList Component:
- This component will display a list of products with links to individual product details pages.
- Each product should have a name and a price.
- The product name should be clickable, and clicking it should navigate to a new page that shows the details of that product.
o Create a ProductDetails Component:
- This component will display the details of a single product, such as name, price, and description.
- The product details should be retrieved based on the id parameter from the URL.
- If the product ID in the URL is invalid or does not exist, show a "Product not found" message.
o Create an App Component:
- This component should set up the routing.

- Use React Router to navigate between the product list and individual product details pages.

Tasks:

1. Routing:
o Set up routing for two main paths:
- /products for the product list.
- /products/:id for displaying details of an individual product based on the id parameter.
2. Product List:
- Create a list of products with basic details like name, price, and a link to the product details page.
- Use Link from react-router-dom to navigate to the product details page.
3. Product Details:
- Extract the product id from the URL using the useParams hook.
- Display product details (name, price, description) based on the id parameter.
- If the product is not found, display a "Product not found" message.

Expected Outcome:

o A simple application where users can:
- View a list of products.
- Click on a product to view its details on a new page using URL parameters.