

# **Module-16 React Routing Assignment** **Styling**

## 1. What is React Router? How does it handle routing in single-page applications?

- React Router is a library used for handling navigation in React applications.
- It allows developers to create and manage routes for their apps, making it easier to build single-page applications with multiple views or pages.
- **How does React Router handle Routing in SPAs:-**
- the entire application runs on a single HTML file.
- React Router provides a way to display different components (or views) based on the URL without reloading the page.
- **URL Matching: -**
- React Router listens to changes in the URL (e.g., /home,/about) and determines which component to display.
- **No Full Reloads:-**
- Instead of reloading the page, React Router updates the DOM to display the required component.

## **2. Explain the difference between BrowserRouter, Route, Link, and Switch components in React Router.**

### **1. BrowserRouter: -**

- It is the main wrapper for your React app to enable routing.
- It listens to the browser's URL changes and renders the appropriate components.

### **2. Route: -**

- It defines what to display (which component) when the URL matches a specific path.

### **3. Link: -**

- It is used to navigate between routes without refreshing the page. It replaces the traditional <a> tag.

### **4. Switch (Older React Router Version): -**

- It was used to ensure only one route is rendered at a time.