

# **LAB PRACTICAL-10**

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**Batch:04**

Scenario: Multi-Page Student Dashboard with Routing

## **Scenario Description**

You are tasked with building a Student Dashboard SPA using React Router. The app should allow navigation between different pages without reloading the browser.

## **Aim**

To develop a **Student Dashboard Single Page Application (SPA)** using **React Router** that enables navigation between different pages without reloading the browser.

## **Software Requirements**

- Node.js
- npm
- Visual Studio Code
- React
- React Router DOM

## **Scenario Description**

The objective of this practical is to build a student dashboard application using React Router. The application allows users to move between multiple pages such as Dashboard, Courses, and Profile while maintaining a smooth user experience without page refresh.

## **Setup**

A React application is created using create-react-app. React Router is installed to manage routing within the application.

## Component Description

### Dashboard

Displays an overview of student performance and general information.

### Courses

Shows a list of courses in which the student is enrolled.

### Profile

Displays personal details of the student.

### Navigation Bar

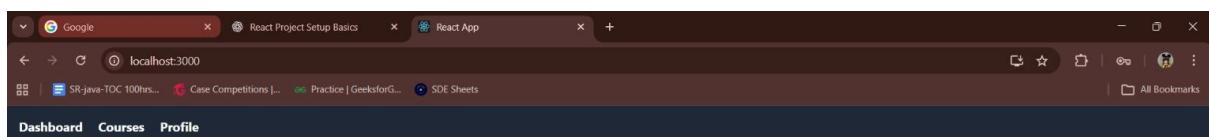
Provides navigation links to move between Dashboard, Courses, and Profile pages.

## Routing Implementation

- The entire application is wrapped inside a Browser Router.
- Routes are defined for Dashboard, Courses, and Profile pages.
- Navigation links are provided using routing links.
- The active navigation link is highlighted.
- Any unknown route is redirected to the Dashboard page.

## Expected Output

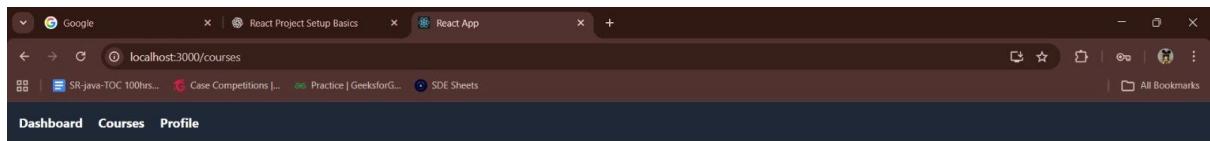
- Smooth navigation between pages without browser reload.
- Active navigation link is highlighted.
- Functional multi-page student dashboard application.



### Dashboard

Overview of student performance.

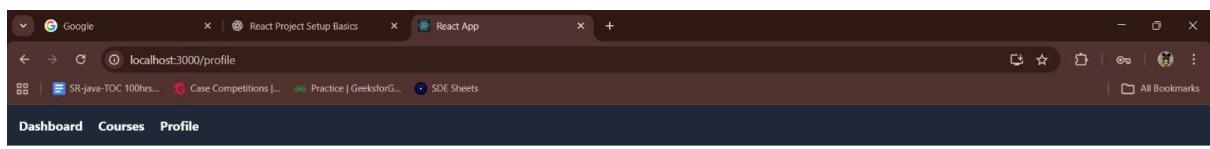
- Attendance: 92%
- Assignments Completed: 18 / 20
- Current GPA: 8.5



## Courses

List of enrolled courses:

- Data Structures
- Web Technologies
- Database Management Systems
- Software Engineering



## Profile

Student personal details:

- Name: Rahul Kumar
- Email: rahul@student.edu
- Department: Computer Science



## Result

Thus, a **multi-page student dashboard SPA using React Router** was successfully developed and executed, meeting all the requirements of the given problem statement.

