React-12

**Project Title: TicketBookingApp – React Application with Conditional Rendering**

**Objectives**

* Explain the concept of **conditional rendering** in React.
* Define and utilize **element variables** for rendering decisions.
* Understand how to **prevent unnecessary rendering** of components.

**Learning Outcomes**

By completing this hands-on lab, the learner will be able to:

* Implement **conditional rendering** in a React application.
* Control component display based on user authentication state.
* Dynamically switch between views using logic and element variables.

**Prerequisites**

To complete this lab, the following tools are required:

* Node.js
* NPM
* Visual Studio Code

**Estimated Time**

* Approximately 60 minutes.

**Implementation Instructions**

1. **Project Setup**
   * Create a new React application named ticketbookingapp using create-react-app.
2. **Conditional User Interface**
   * Create a layout where:
     + A **guest user** can only **view flight details**.
     + A **logged-in user** can **book tickets** in addition to viewing flights.
3. **Login and Logout Behavior**
   * Implement **Login** and **Logout** buttons.
   * Based on the user's login status:
     + Display a **User Page** if the user is logged in.
     + Display a **Guest Page** when the user is logged out.
4. **Rendering Logic**
   * Use **element variables** to store and conditionally display components.
   * Apply **conditional rendering techniques** such as:
     + If-else
     + Ternary operators
     + Logical AND (&&)