**Exercise 12**

**Objectives:**

1. **Explain about conditional rendering in React**

Conditional rendering in React lets you show or hide components based on logic or state. It uses JavaScript conditions like if, ternary, or && inside JSX. Example: {isLoggedIn ? <UserPage /> : <GuestPage />}. It makes UI dynamic — changing based on user input, login status, etc. It helps manage different views like loading, error, success, or user roles.

1. **Define element variables**

Element variables are regular JavaScript variables that store JSX elements. They let you conditionally assign UI blocks and render them later in the return statement. Example: let content; if (loggedIn) { content = <Dashboard /> }.

This helps keep JSX clean and separate from logic. You can use these variables anywhere inside a component's render/return logic.

1. **Explain how to prevent components from rendering**

To prevent rendering, you can use if statements or logical && to skip component output. Example: {showComponent && <Component />} renders only if showComponent is true. You can also return null from a component to stop it from rendering anything. This technique is useful for hiding parts of the UI without unmounting the component. Preventing unnecessary rendering improves performance and simplifies UI logic.

**Hands On Practice**

1. **Create a React Application named “ticketbookingapp” where the guest user can browse the page where the flight details are displayed whereas the logged in user only can book tickets.**

npx create-react-app ticketbookingapp

1. **The Login and Logout buttons should accordingly display different pages. Once the user is logged in the User page should be displayed. When the user clicks on Logout, the Guest page should be displayed.**

**GuestPage.js**

import React from 'react';

function GuestPage() {

  return (

    <div>

      <h2>Welcome, Guest!</h2>

      <p>Please log in to book your flight tickets.</p>

      <ul>

        <li>Flight 1: Delhi ➜ Mumbai</li>

        <li>Flight 2: Bangalore ➜ Chennai</li>

        <li>Flight 3: Hyderabad ➜ Kolkata</li>

      </ul>

    </div>

  );

}

export default GuestPage;

**UserPage.js**

import React from 'react';

function UserPage() {

  return (

    <div>

      <h2>Welcome, User!</h2>

      <p>You are now logged in. You can book tickets below.</p>

      <button>Book Flight</button>

    </div>

  );

}

export default UserPage;

**App.js**

import React, { useState } from 'react';

import GuestPage from './GuestPage';

import UserPage from './UserPage';

function App() {

  const [isLoggedIn, setIsLoggedIn] = useState(false);

  let pageContent;

  if (isLoggedIn) {

    pageContent = <UserPage />;

  } else {

    pageContent = <GuestPage />;

  }

  const handleAuthToggle = () => {

    setIsLoggedIn(prev => !prev);

  };

  return (

    <div style={{ padding: '20px', fontFamily: 'Arial' }}>

      <h1>Ticket Booking Portal</h1>

      <button onClick={handleAuthToggle}>

        {isLoggedIn ? 'Logout' : 'Login'}

      </button>

      <hr />

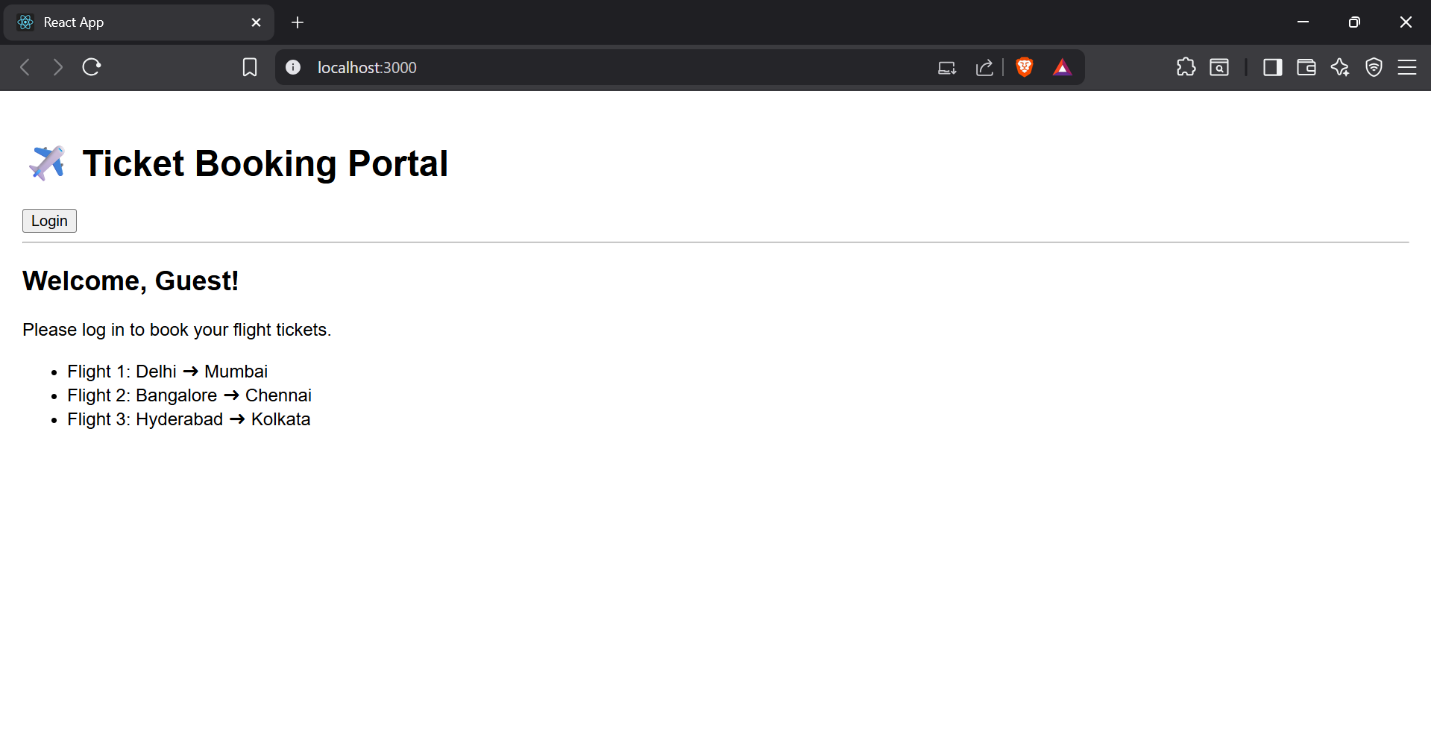
      {pageContent}

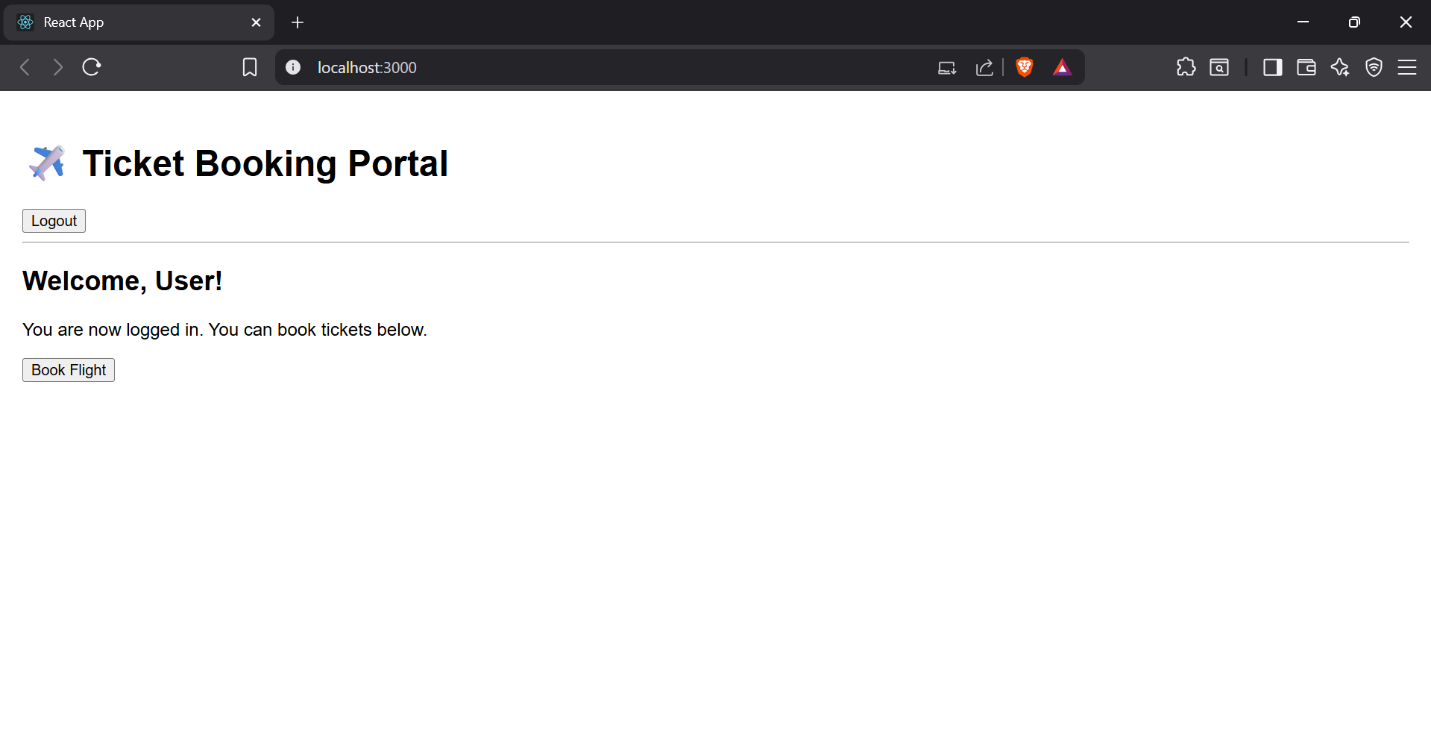
    </div>

  );

}

export default App;

**Ouput:**

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