**React**

**Exercise 9: Cricket App**

**// ListofPlayers.js**

import React from "react";

const ListofPlayers = () => {

const players = [

{ name: "Rohit Sharma", score: 85 },

{ name: "Virat Kohli", score: 90 },

{ name: "KL Rahul", score: 65 },

{ name: "Shreyas Iyer", score: 55 },

{ name: "Hardik Pandya", score: 75 },

{ name: "Ravindra Jadeja", score: 60 },

{ name: "R. Ashwin", score: 88 },

{ name: "Bumrah", score: 68 },

{ name: "Shami", score: 92 },

{ name: "Suryakumar", score: 80 },

{ name: "Gill", score: 50 }

];

const filteredPlayers = players.filter(player => player.score < 70);

return (

<div>

<h3>All Players</h3>

<ul>

{players.map((player, index) => (

<li key={index}>

{player.name} - {player.score}

</li>

))}

</ul>

<h4>Players with Score below 70:</h4>

<ul>

{filteredPlayers.map((player, index) => (

<li key={index}>

{player.name} - {player.score}

</li>

))}

</ul>

</div>

);

};

export default ListofPlayers;

**// IndianPlayers.js**

import React from "react";

const IndianPlayers = () => {

// Destructuring Odd and Even Team Players

const allPlayers = ["Player1", "Player2", "Player3", "Player4", "Player5", "Player6"];

const [p1, p2, p3, p4, p5, p6] = allPlayers;

const oddTeam = [p1, p3, p5];

const evenTeam = [p2, p4, p6];

// Merge T20 and Ranji Trophy players using Spread

const T20players = ["Rohit", "Kohli", "Gill"];

const RanjiTrophy = ["Sarfaraz", "Pujara", "Rahane"];

const allIndianPlayers = [...T20players, ...RanjiTrophy];

// Flag for conditional rendering

const flag = true; // set to false to show other image

return (

<div>

<h3>Odd Team Players:</h3>

<ul>{oddTeam.map((p, i) => <li key={i}>{p}</li>)}</ul>

<h3>Even Team Players:</h3>

<ul>{evenTeam.map((p, i) => <li key={i}>{p}</li>)}</ul>

<h3>Merged Players List:</h3>

<ul>{allIndianPlayers.map((p, i) => <li key={i}>{p}</li>)}</ul>

<h3>Flag Image:</h3>

{flag ? (

<img src="https://upload.wikimedia.org/wikipedia/en/4/41/Flag\_of\_India.svg" alt="Indian Flag" width="150" />

) : (

<img src="https://upload.wikimedia.org/wikipedia/commons/thumb/3/30/Red\_Cross.svg/1024px-Red\_Cross.svg.png" alt="No Flag" width="150" />

)}

</div>

);

};

export default IndianPlayers;

**// App.js**

import React from "react";

import ListofPlayers from "./ListofPlayers";

import IndianPlayers from "./IndianPlayers";

function App() {

return (

<div style={{ padding: "20px" }}>

<h1>🏏 Cricket App</h1>

<ListofPlayers />

<hr />

<IndianPlayers />

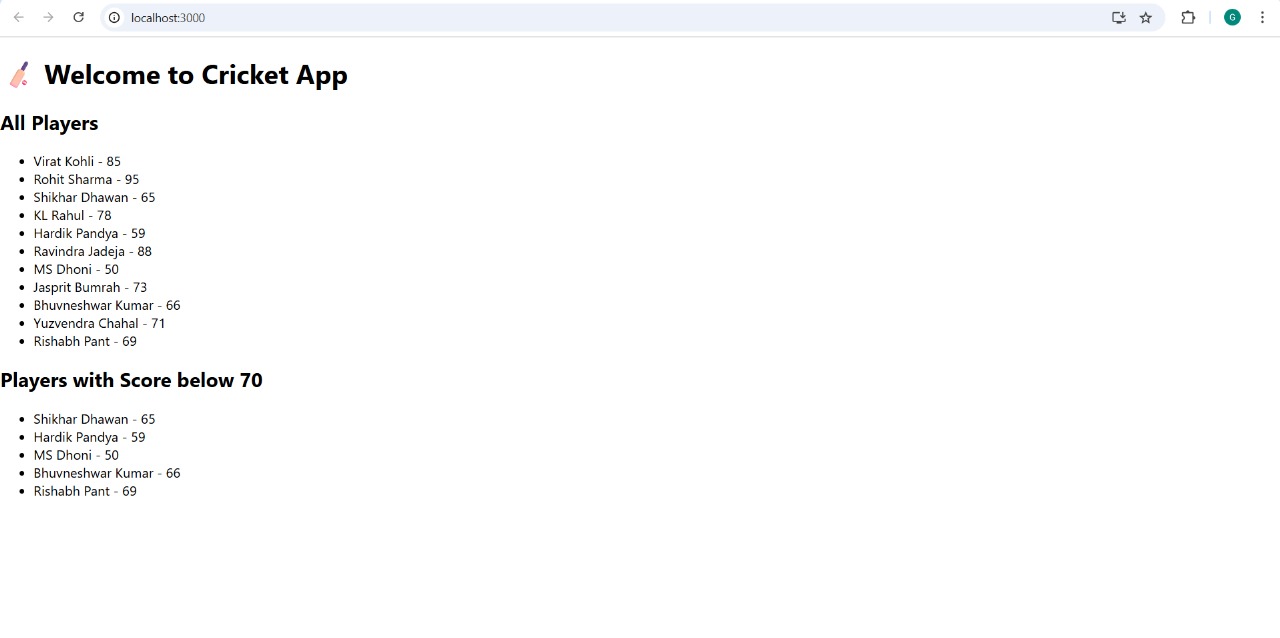
</div>

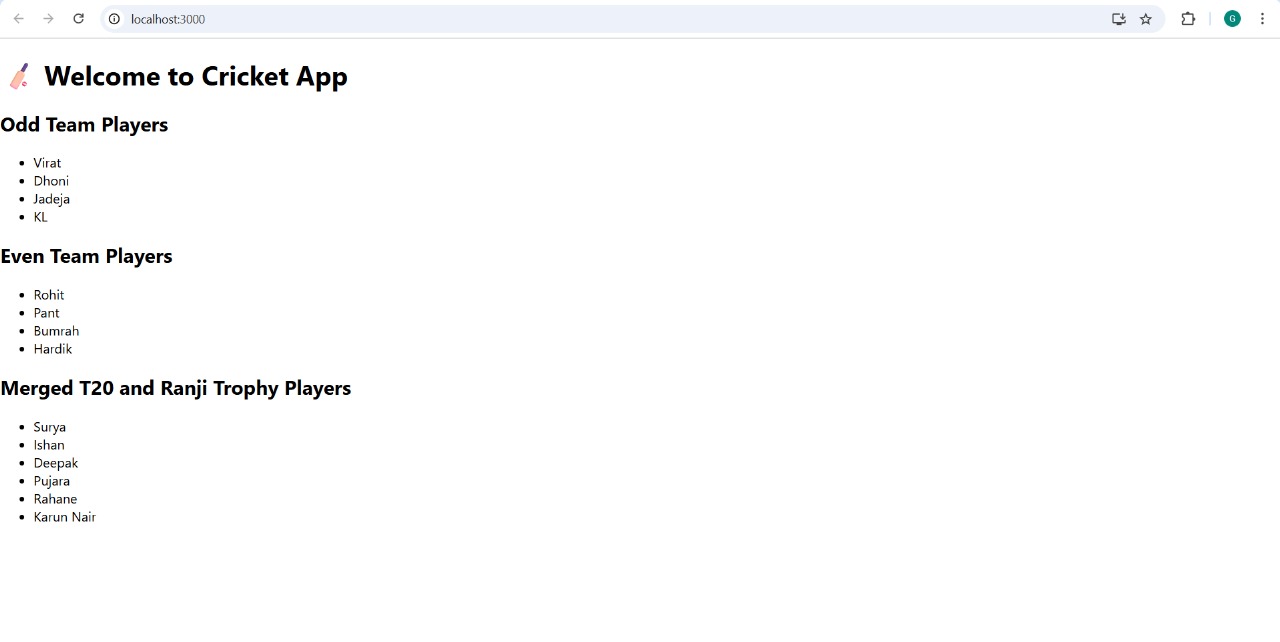
);

}

export default App;

**Output:**





**Exercise 10: Office Space Rental App**

**// App.js**

import React from 'react';

import './App.css';

function App() {

const officeHeading = <h1>Office Space Rental App</h1>;

const officeImageURL = "https://via.placeholder.com/400x200.png?text=Office+Space";

const office = {

name: "Global Tech Workspace",

rent: 75000,

address: "123 Business Road, Tech City"

};

const officeList = [

{ name: "SmartHub", rent: 55000, address: "21 Startup Street" },

{ name: "InnoSpace", rent: 65000, address: "88 Innovation Park" },

{ name: "TechNest", rent: 80000, address: "9 Silicon Valley" },

{ name: "CubeWorks", rent: 40000, address: "12 Remote Lane" }

];

return (

<div className="App">

{officeHeading}

<img src={officeImageURL} alt="Office Space" width="400" />

<h2>Featured Office</h2>

<p><strong>Name:</strong> {office.name}</p>

<p>

<strong>Rent:</strong>

<span style={{ color: office.rent < 60000 ? 'red' : 'green' }}>

₹{office.rent}

</span>

</p>

<p><strong>Address:</strong> {office.address}</p>

<h2>All Available Office Spaces</h2>

<ul>

{officeList.map((item, index) => (

<li key={index}>

<p><strong>Name:</strong> {item.name}</p>

<p>

<strong>Rent:</strong>

<span style={{ color: item.rent < 60000 ? 'red' : 'green' }}>

₹{item.rent}

</span>

</p>

<p><strong>Address:</strong> {item.address}</p>

<hr />

</li>

))}

</ul>

</div>

);

}

export default App;

**// App.css**

.App {

text-align: center;

padding: 20px;

font-family: Arial, sans-serif;

}

img {

border-radius: 8px;

margin: 20px 0;

}

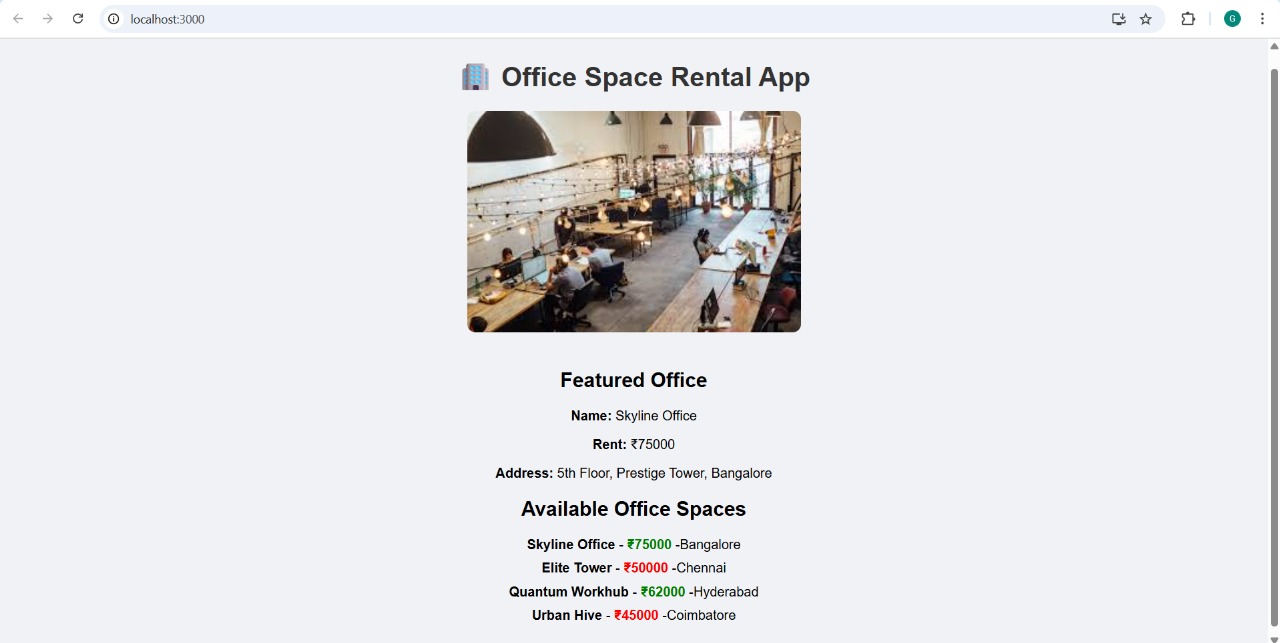
li {

list-style-type: none;

margin-bottom: 20px;

}

**Output:**



**Exercise 11: Currency Convertor App**

**// App.js**

import React, { Component } from "react";

class App extends Component {

constructor() {

super();

this.state = {

count: 0,

message: "",

inr: '',

euro: ''

};

}

// 1.a. Increment handler (invokes multiple methods)

increment = () => {

this.setState({ count: this.state.count + 1 });

this.sayHello();

};

// 1.b. Method to say hello

sayHello = () => {

this.setState({ message: "Hello! Counter increased." });

};

// Decrement handler

decrement = () => {

this.setState({ count: this.state.count - 1, message: "Counter decreased." });

};

// 2. Say Welcome handler

sayWelcome = (msg) => {

this.setState({ message: msg });

};

// 3. Synthetic event handler

onPress = () => {

this.setState({ message: "I was clicked" });

};

// Currency converter handler

handleChange = (e) => {

this.setState({ inr: e.target.value });

};

handleSubmit = () => {

const euro = (this.state.inr / 90).toFixed(2);

this.setState({ euro: euro, message: `${this.state.inr} INR = ${euro} EURO` });

};

render() {

return (

<div style={{ padding: "30px" }}>

<h1>Event Examples App</h1>

{/\* Counter \*/}

<h2>Counter: {this.state.count}</h2>

<button onClick={this.increment}>Increment</button>{" "}

<button onClick={this.decrement}>Decrement</button>

{/\* Say Welcome \*/}

<div style={{ marginTop: "20px" }}>

<button onClick={() => this.sayWelcome("Welcome to the EventExamplesApp!")}>

Say Welcome

</button>

</div>

{/\* Synthetic Event \*/}

<div style={{ marginTop: "20px" }}>

<button onClick={this.onPress}>Click Me</button>

</div>

{/\* Currency Converter \*/}

<div style={{ marginTop: "30px" }}>

<h3>Currency Converter</h3>

<input

type="number"

placeholder="Enter INR"

value={this.state.inr}

onChange={this.handleChange}

/>{" "}

<button onClick={this.handleSubmit}>Convert</button>

{this.state.euro && (

<p>

Converted Amount: <strong>{this.state.euro} Euro</strong>

</p>

)}

</div>

{/\* Message Display \*/}

{this.state.message && (

<div style={{ marginTop: "20px", color: "blue" }}>

<strong>Message:</strong> {this.state.message}

</div>

)}

</div>

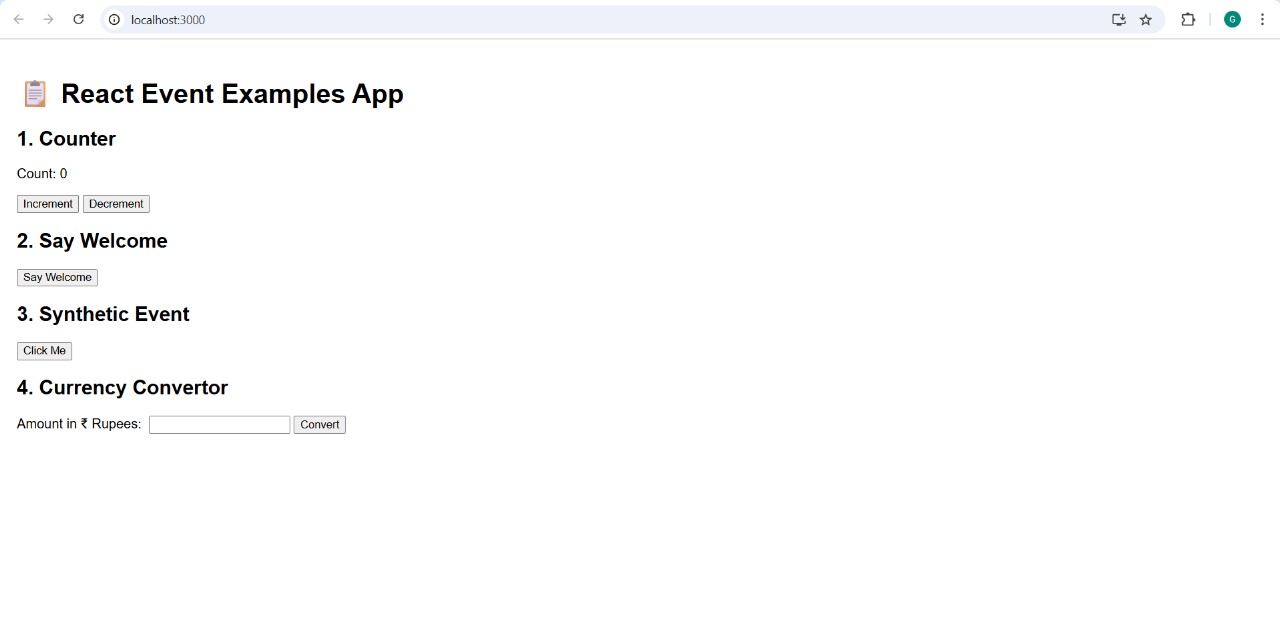
);

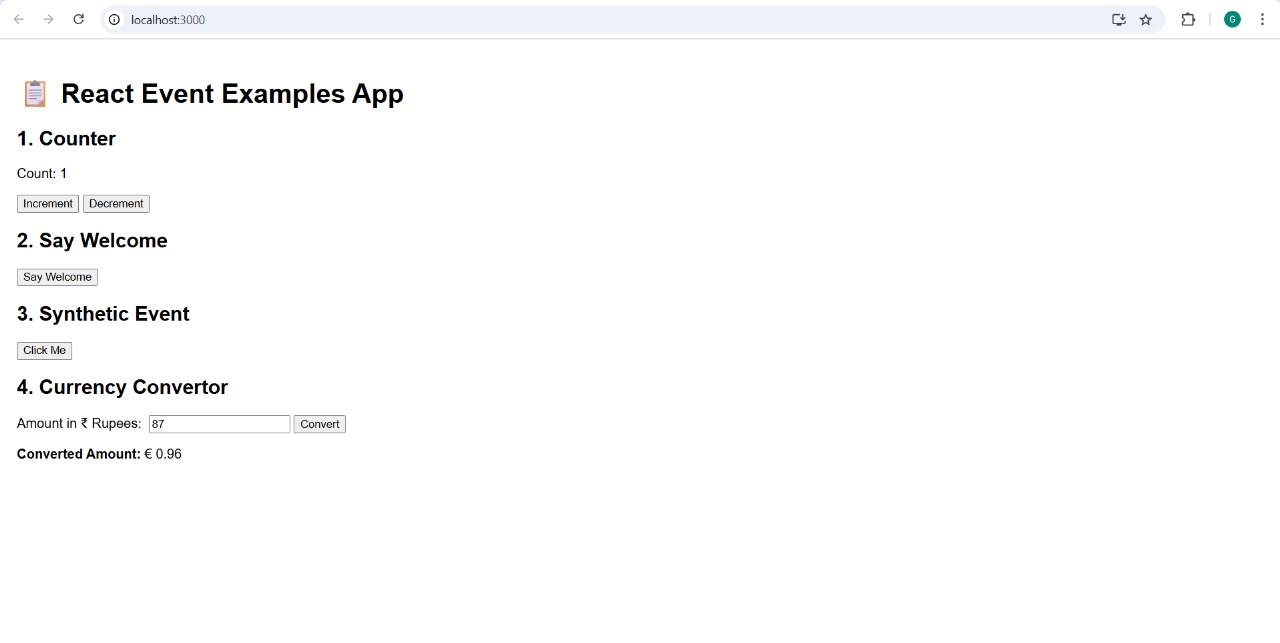
}

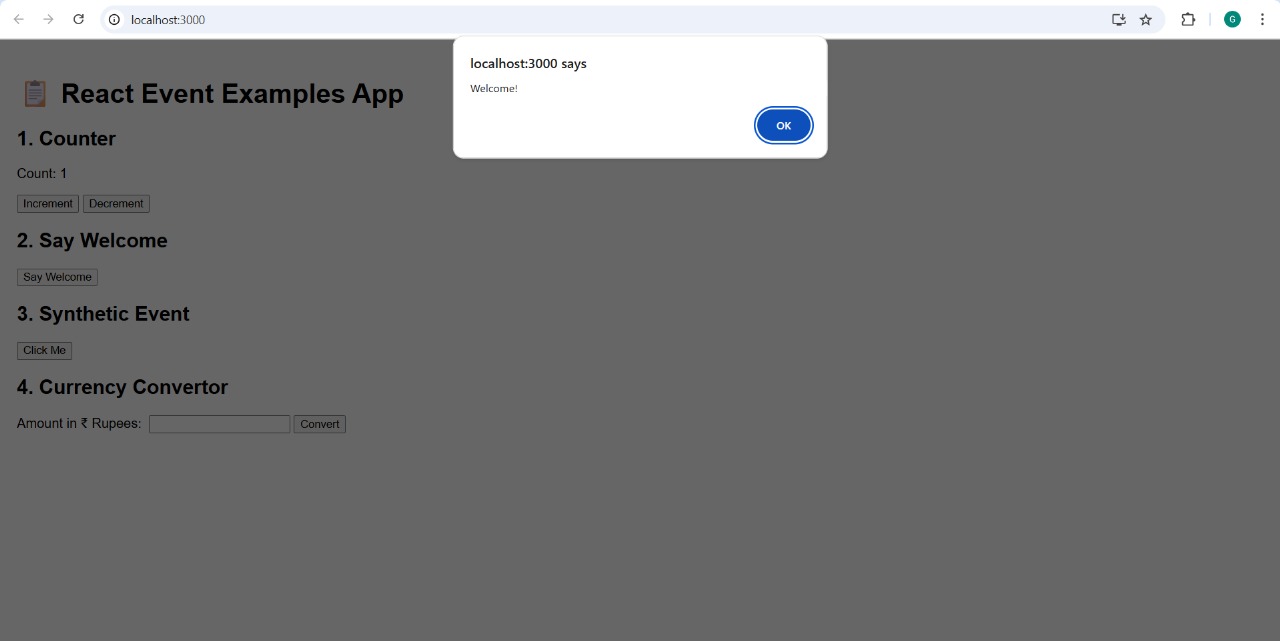
}

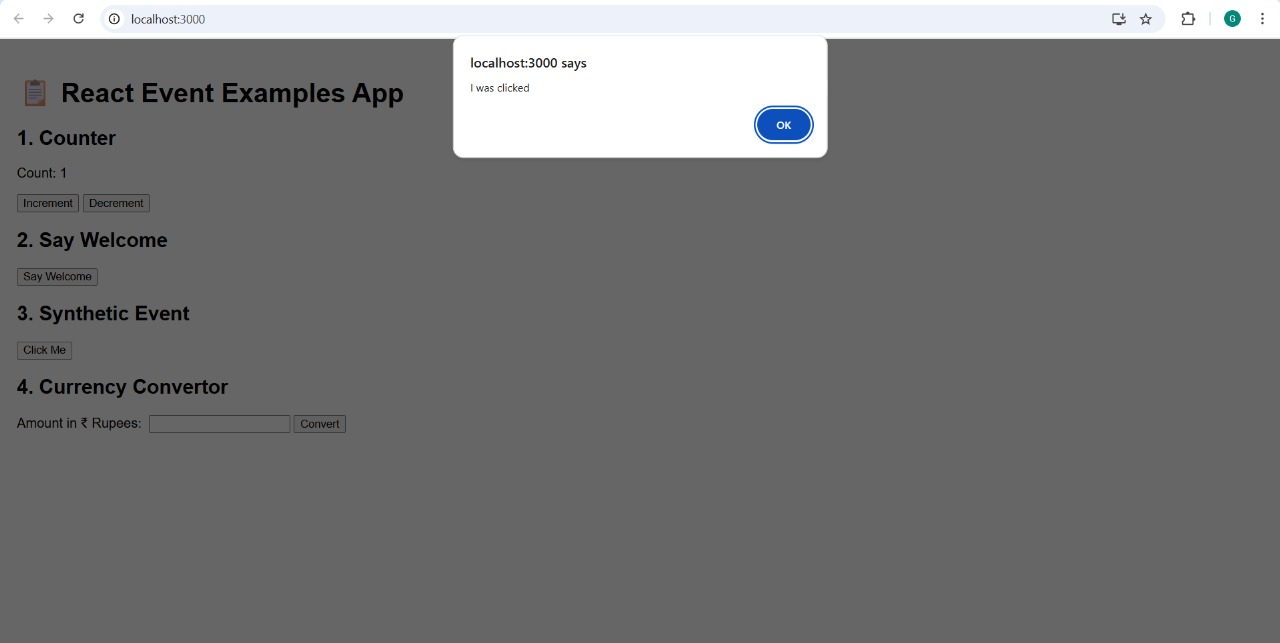
export default App;

**Output:**









**Exercise 12: Ticket Booking App**

**// App.js**

import React, { useState } from "react";

import GuestPage from "./components/GuestPage";

import UserPage from "./components/UserPage";

import LoginControl from "./components/LoginControl";

function App() {

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

const handleLogin = () => setIsLoggedIn(true);

const handleLogout = () => setIsLoggedIn(false);

return (

<div>

<h1>✈️ Ticket Booking App</h1>

<LoginControl

isLoggedIn={isLoggedIn}

onLogin={handleLogin}

onLogout={handleLogout}

/>

{isLoggedIn ? <UserPage /> : <GuestPage />}

</div>

);

}

export default App;

**// LoginControl.js**

import React from "react";

const LoginControl = ({ isLoggedIn, onLogin, onLogout }) => {

return (

<div>

{isLoggedIn ? (

<button onClick={onLogout}>Logout</button>

) : (

<button onClick={onLogin}>Login</button>

)}

</div>

);

};

export default LoginControl;

**// FlightList.js**

import React from "react";

const flights = [

{ id: 1, origin: "Delhi", destination: "Mumbai", price: 4500 },

{ id: 2, origin: "Bangalore", destination: "Chennai", price: 3000 },

{ id: 3, origin: "Hyderabad", destination: "Kolkata", price: 5200 },

];

const FlightList = () => {

return (

<div>

<h3>Available Flights:</h3>

<ul>

{flights.map((flight) => (

<li key={flight.id}>

{flight.origin} → {flight.destination} — ₹{flight.price}

</li>

))}

</ul>

</div>

);

};

export default FlightList;

**// GuestPage.js**

import React from "react";

import FlightList from "./FlightList";

const GuestPage = () => {

return (

<div>

<h2>Welcome Guest</h2>

<p>You must login to book tickets.</p>

<FlightList />

</div>

);

};

export default GuestPage;

**// UserPage.js**

import React from "react";

import FlightList from "./FlightList";

const UserPage = () => {

const handleBookTicket = () => {

alert("Ticket booked successfully!");

};

return (

<div>

<h2>Welcome User</h2>

<FlightList />

<button onClick={handleBookTicket}>Book Ticket</button>

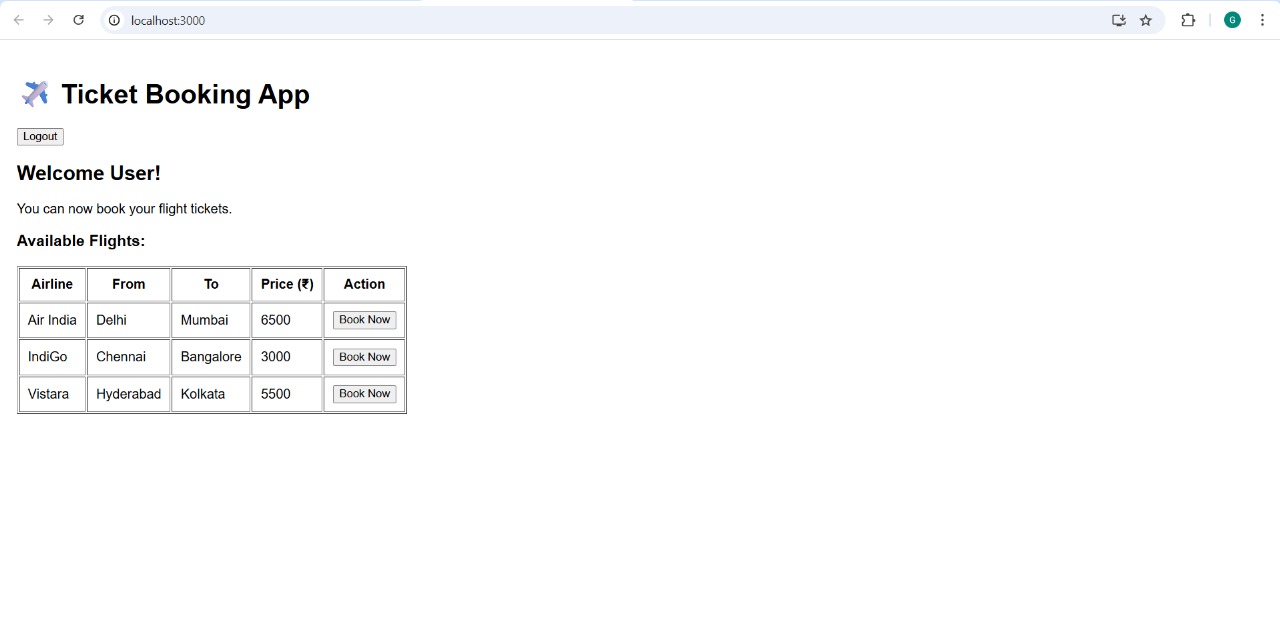
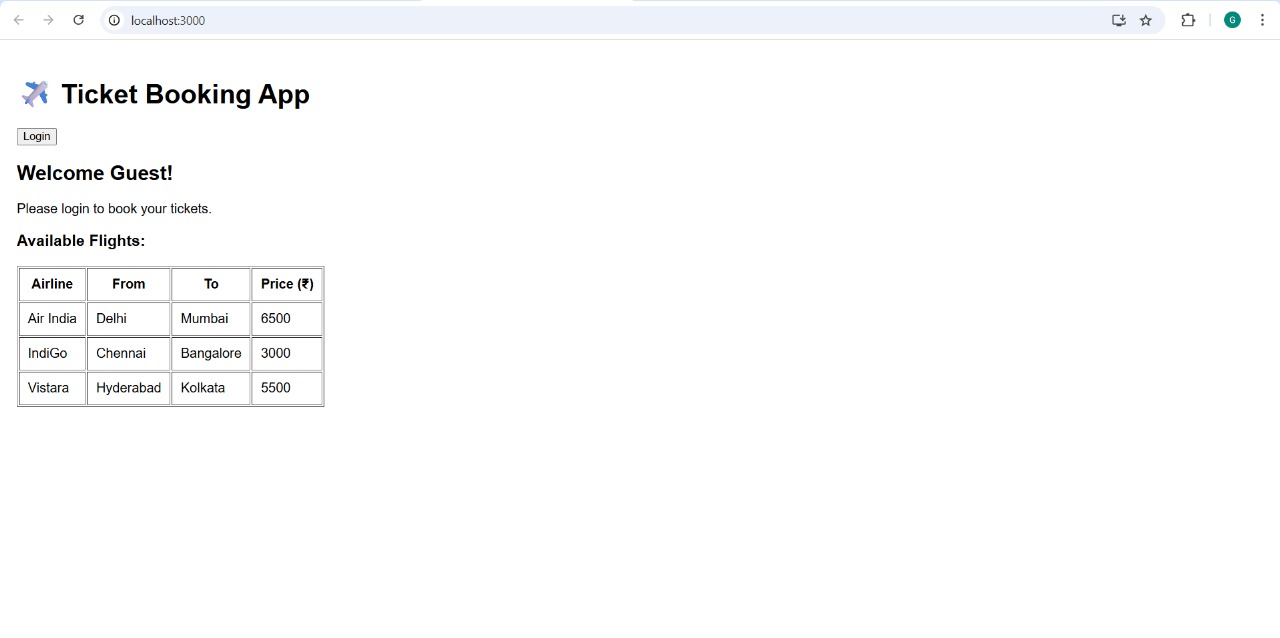
</div>

);

};

export default UserPage;

**Output:**



**Exercise 13: Blogger App**

**// App.js**

import React, { useState } from "react";

import BookDetails from "./components/BookDetails";

import BlogDetails from "./components/BlogDetails";

import CourseDetails from "./components/CourseDetails";

function App() {

const [activeTab, setActiveTab] = useState("book");

return (

<div>

<h1>Blogger App</h1>

<div>

<button onClick={() => setActiveTab("book")}>Book</button>

<button onClick={() => setActiveTab("blog")}>Blog</button>

<button onClick={() => setActiveTab("course")}>Course</button>

</div>

<hr />

{/\* 1. IF/ELSE with variable \*/}

{(() => {

if (activeTab === "book") return <BookDetails />;

else if (activeTab === "blog") return <BlogDetails />;

else return <CourseDetails />;

})()}

{/\* 2. Ternary Operator \*/}

{/\* {activeTab === "book" ? <BookDetails /> : activeTab === "blog" ? <BlogDetails /> : <CourseDetails />} \*/}

{/\* 3. Logical && operator \*/}

{/\* {activeTab === "book" && <BookDetails />}

{activeTab === "blog" && <BlogDetails />}

{activeTab === "course" && <CourseDetails />} \*/}

{/\* 4. Switch case (alternative way) \*/}

{/\* {renderComponent(activeTab)} \*/}

</div>

);

}

// 5. Separate Render Function (switch-case method)

function renderComponent(tab) {

switch (tab) {

case "book":

return <BookDetails />;

case "blog":

return <BlogDetails />;

case "course":

return <CourseDetails />;

default:

return <h4>Unknown Tab</h4>;

}

}

export default App;

// BookDetails.js

import React from "react";

const BookDetails = () => {

return (

<div>

<h2>Book Details</h2>

<p>Title: The React Journey</p>

<p>Author: Jordan Walke</p>

</div>

);

};

export default BookDetails;

**// BlogDetails.js**

import React from "react";

const BlogDetails = () => {

return (

<div>

<h2>Blog Details</h2>

<p>Title: Understanding JSX</p>

<p>Author: Dan Abramov</p>

</div>

);

};

export default BlogDetails;

**// CourseDetails.js**

import React from "react";

const CourseDetails = () => {

return (

<div>

<h2>Course Details</h2>

<p>Course: React Masterclass</p>

<p>Instructor: Sophie Alpert</p>

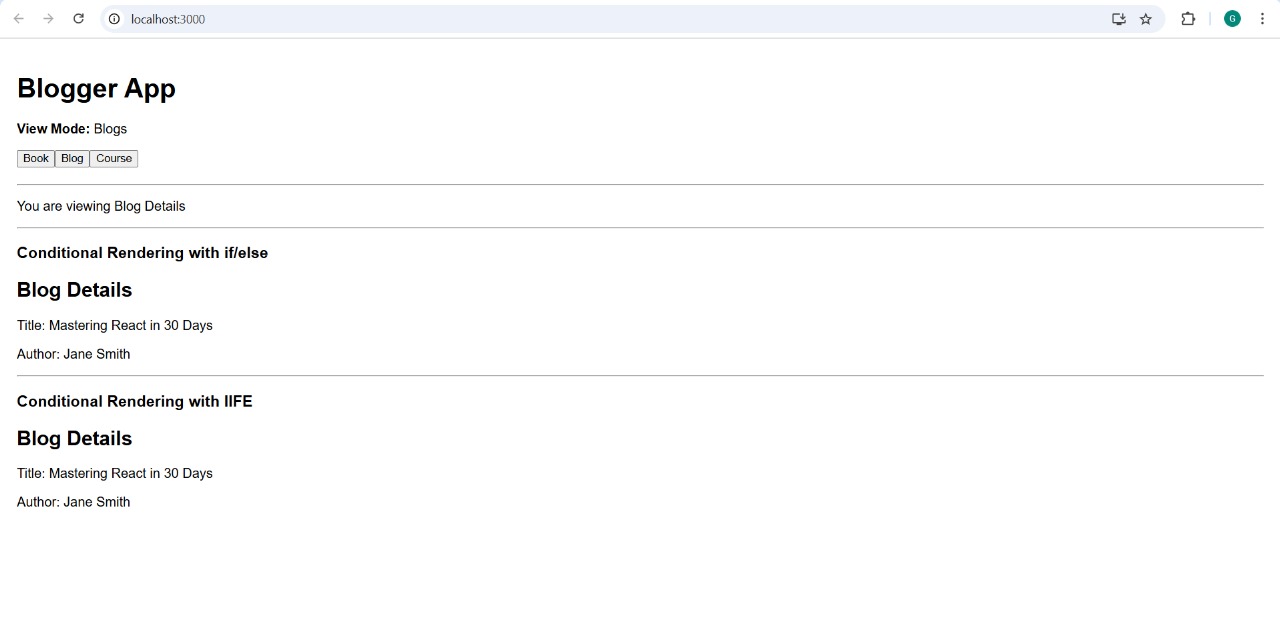
</div>

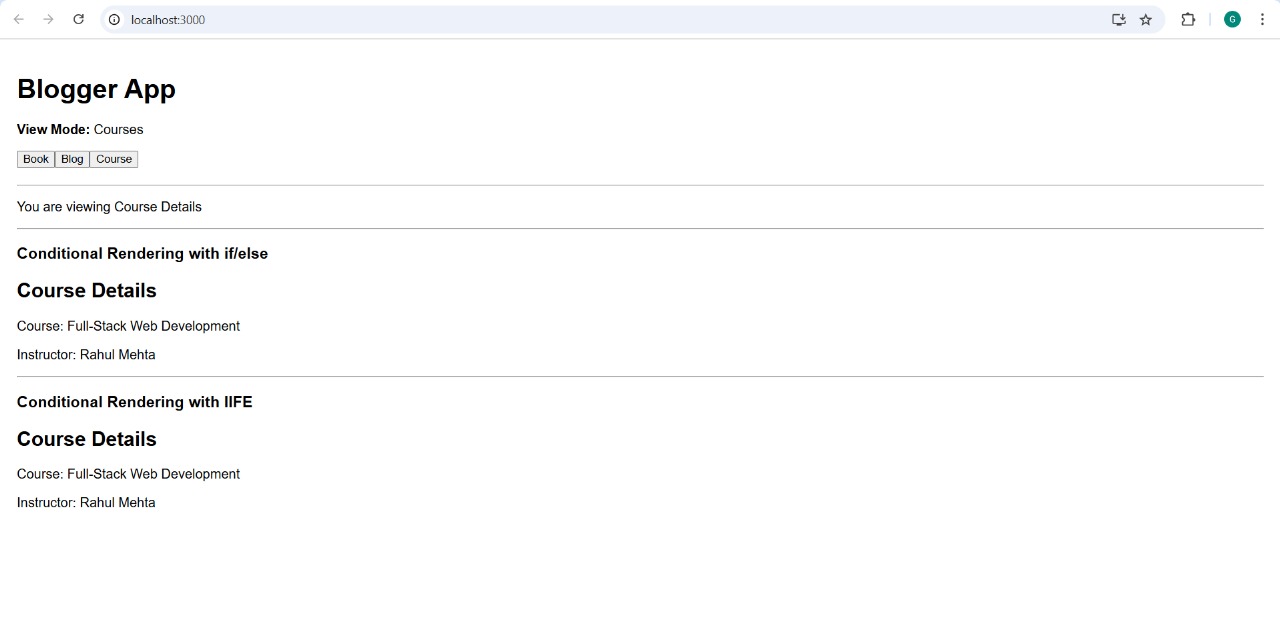
);

};

export default CourseDetails;

**Output:**





**Exercise 14: Employee Management App**

**// ThemeContext.js**

import { createContext } from 'react';

const ThemeContext = createContext('light'); // default theme is light

export default ThemeContext;

**// App.js**

import React, { useState } from 'react';

import EmployeesList from './EmployeesList';

import ThemeContext from './ThemeContext';

const App = () => {

const [theme, setTheme] = useState('light');

const toggleTheme = () => {

setTheme(prev => (prev === 'light' ? 'dark' : 'light'));

};

return (

<ThemeContext.Provider value={theme}>

<div className={`app-container ${theme}`}>

<h1>Employee Management App</h1>

<button onClick={toggleTheme}>

Toggle Theme ({theme})

</button>

<EmployeesList />

</div>

</ThemeContext.Provider>

);

};

export default App;

**// EmployeesList.js**

import React from 'react';

import EmployeeCard from './EmployeeCard';

const employeeData = [

{ id: 1, name: 'Alice', role: 'Developer' },

{ id: 2, name: 'Bob', role: 'Designer' },

{ id: 3, name: 'Charlie', role: 'Tester' }

];

const EmployeesList = () => {

return (

<div>

<h2>Employees List</h2>

{employeeData.map(emp => (

<EmployeeCard key={emp.id} employee={emp} />

))}

</div>

);

};

export default EmployeesList;

**// EmployeeCard.js**

import React, { useContext } from 'react';

import ThemeContext from './ThemeContext';

const EmployeeCard = ({ employee }) => {

const theme = useContext(ThemeContext);

return (

<div className={`employee-card ${theme}`}>

<h3>{employee.name}</h3>

<p>Role: {employee.role}</p>

<button className={`btn ${theme}`}>View Profile</button>

</div>

);

};

export default EmployeeCard;

**// styles.css**

.app-container.light {

background-color: #f9f9f9;

color: #000;

}

.app-container.dark {

background-color: #222;

color: #fff;

}

.btn.light {

background-color: #fff;

color: #000;

}

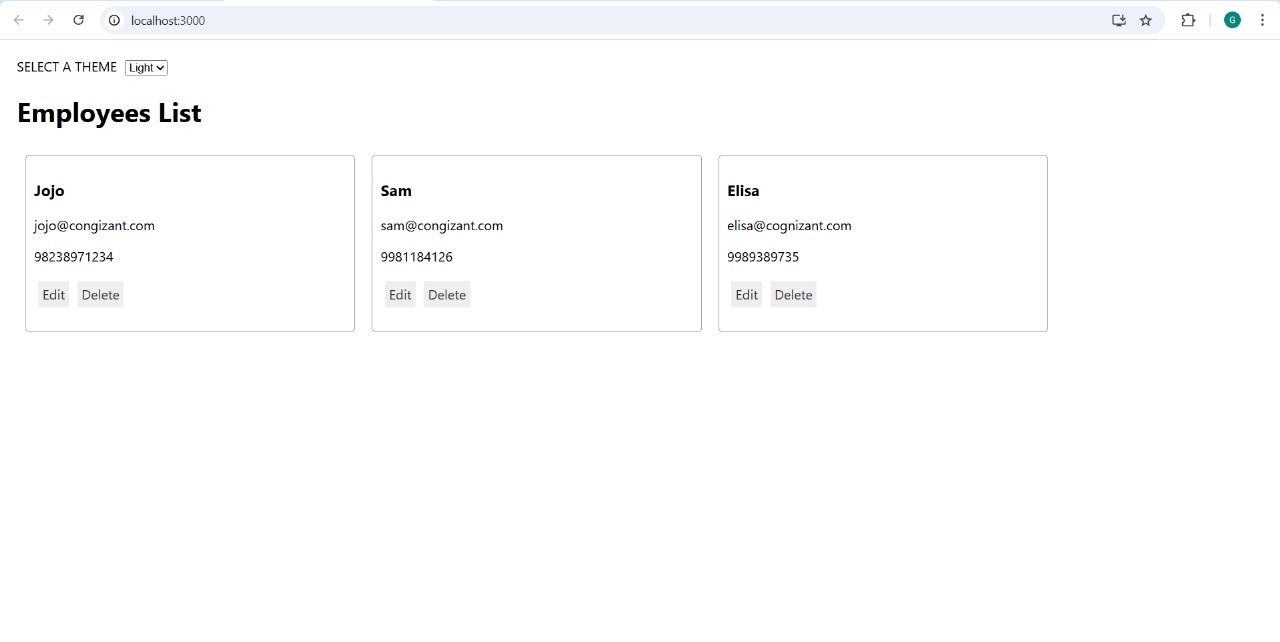
.btn.dark {

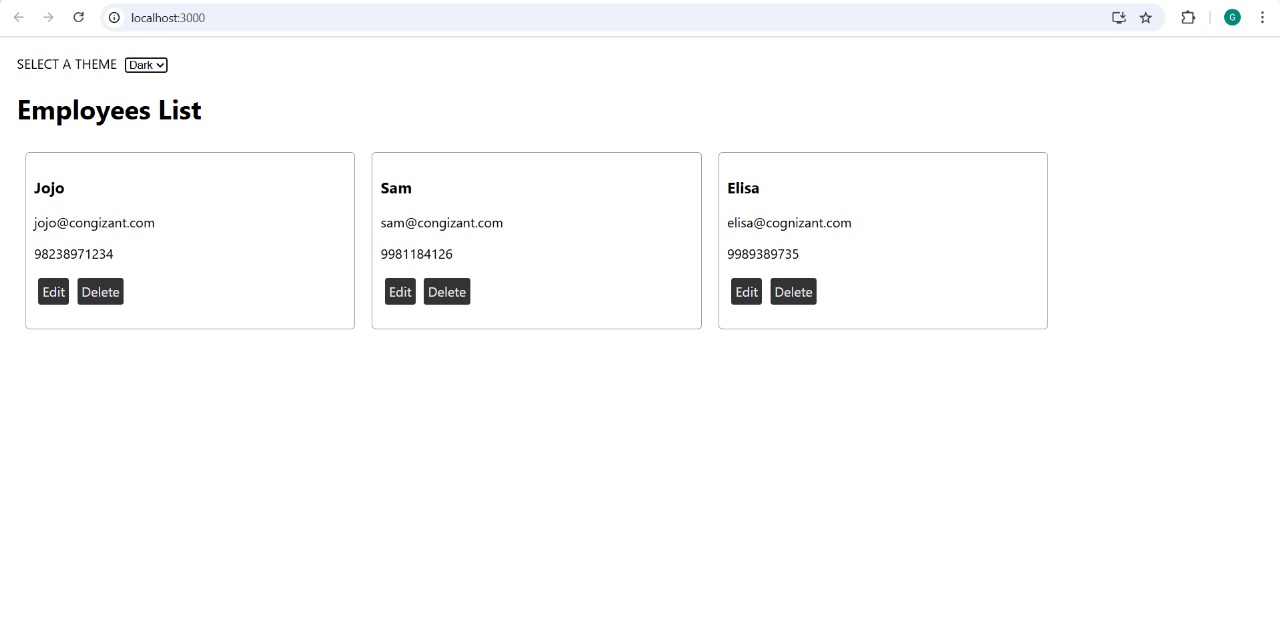
background-color: #000;

color: #fff;

}

**Output:**





**Exercise 15: Complaint Register App**

**// src/App.js**

import React from 'react';

import ComplaintRegister from './ComplaintRegister';

function App() {

return (

<div className="App">

<ComplaintRegister />

</div>

);

}

export default App;

**// src/ComplaintRegister.js**

import React, { useState } from 'react';

const ComplaintRegister = () => {

const [name, setName] = useState('');

const [complaint, setComplaint] = useState('');

const handleSubmit = (e) => {

e.preventDefault();

const refId = Math.floor(Math.random() \* 100) + 1;

alert(`Thanks ${name}\nYour Complaint was Submitted.\nTransaction ID is: ${refId}`);

setName('');

setComplaint('');

};

return (

<div style={{ textAlign: 'center', marginTop: '50px' }}>

<h2 style={{ color: 'red', fontWeight: 'bold' }}>Register your complaints here!!!</h2>

<form onSubmit={handleSubmit}>

<div style={{ marginBottom: '10px' }}>

<label>Name: </label>

<input

type="text"

value={name}

onChange={(e) => setName(e.target.value)}

required

/>

</div>

<div style={{ marginBottom: '10px' }}>

<label>Complaint: </label>

<textarea

value={complaint}

onChange={(e) => setComplaint(e.target.value)}

required

/>

</div>

<button type="submit">Submit</button>

</form>

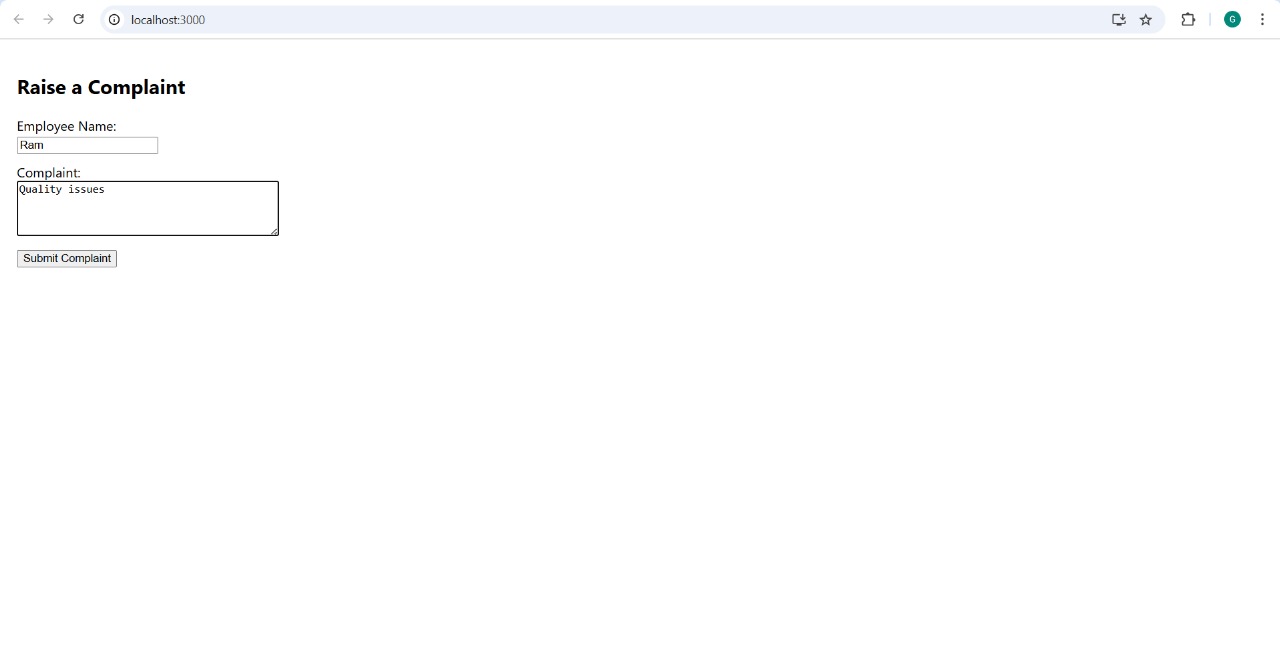
</div>

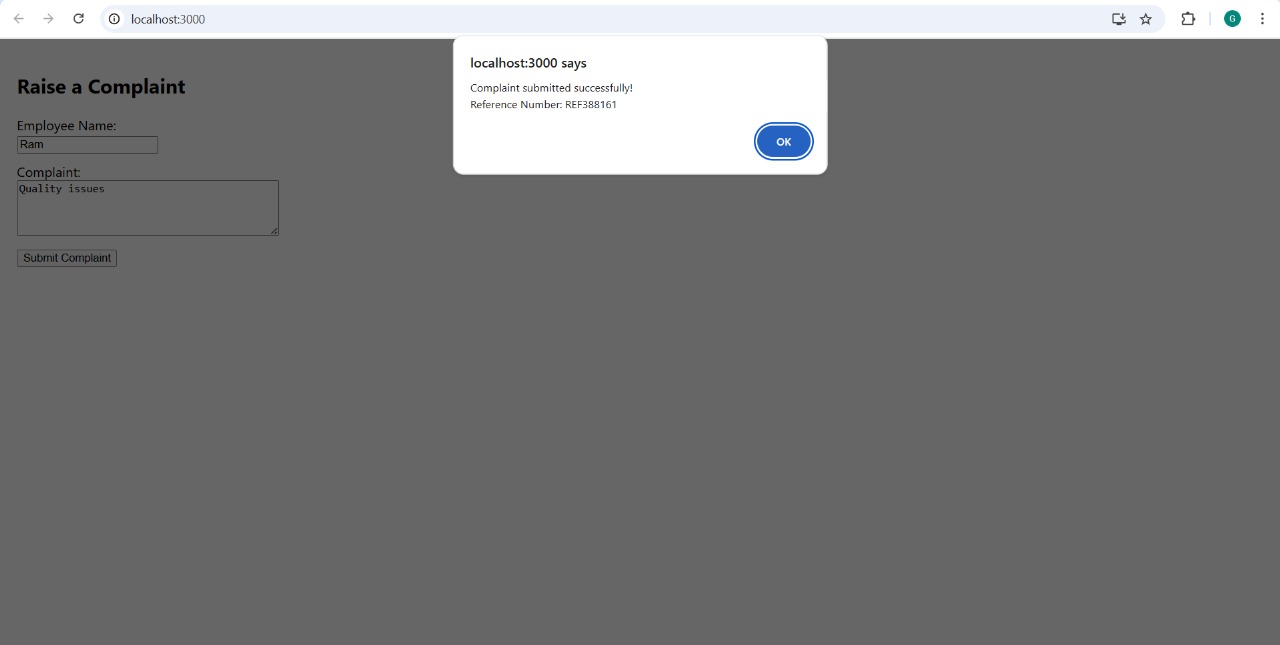
);

};

export default ComplaintRegister;

**Output:**





**Exercise 16: Mail Register App**

**// src/App.js**

import React from 'react';

import Register from './Register';

function App() {

return (

<div className="App">

<Register />

</div>

);

}

export default App;

**// src/Register.js**

import React, { useState } from 'react';

const Register = () => {

const [formData, setFormData] = useState({

name: '',

email: '',

password: ''

});

const [errors, setErrors] = useState({

name: '',

email: '',

password: ''

});

const handleChange = (e) => {

const { name, value } = e.target;

setFormData(prev => ({

...prev,

[name]: value

}));

// Inline validations during input (event handle)

switch (name) {

case 'name':

setErrors(prev => ({

...prev,

name: value.length < 5 ? 'Name must be at least 5 characters' : ''

}));

break;

case 'email':

setErrors(prev => ({

...prev,

email: value.includes('@') && value.includes('.') ? '' : 'Email must contain "@" and "."'

}));

break;

case 'password':

setErrors(prev => ({

...prev,

password: value.length < 8 ? 'Password must be at least 8 characters' : ''

}));

break;

default:

break;

}

};

const handleSubmit = (e) => {

e.preventDefault();

// Final check before submission (event submit)

const newErrors = {

name: formData.name.length < 5 ? 'Name must be at least 5 characters' : '',

email: !(formData.email.includes('@') && formData.email.includes('.')) ? 'Email must contain "@" and "."' : '',

password: formData.password.length < 8 ? 'Password must be at least 8 characters' : ''

};

setErrors(newErrors);

const hasErrors = Object.values(newErrors).some(msg => msg !== '');

if (!hasErrors) {

alert('Form submitted successfully!');

setFormData({ name: '', email: '', password: '' });

}

};

return (

<div style={{ margin: '40px auto', maxWidth: '400px', textAlign: 'left' }}>

<h2 style={{ textAlign: 'center' }}>Register</h2>

<form onSubmit={handleSubmit}>

<div style={{ marginBottom: '15px' }}>

<label>Name:</label><br />

<input

type="text"

name="name"

value={formData.name}

onChange={handleChange}

required

/>

<div style={{ color: 'red' }}>{errors.name}</div>

</div>

<div style={{ marginBottom: '15px' }}>

<label>Email:</label><br />

<input

type="email"

name="email"

value={formData.email}

onChange={handleChange}

required

/>

<div style={{ color: 'red' }}>{errors.email}</div>

</div>

<div style={{ marginBottom: '15px' }}>

<label>Password:</label><br />

<input

type="password"

name="password"

value={formData.password}

onChange={handleChange}

required

/>

<div style={{ color: 'red' }}>{errors.password}</div>

</div>

<button type="submit" style={{ width: '100%', padding: '8px' }}>Register</button>

</form>

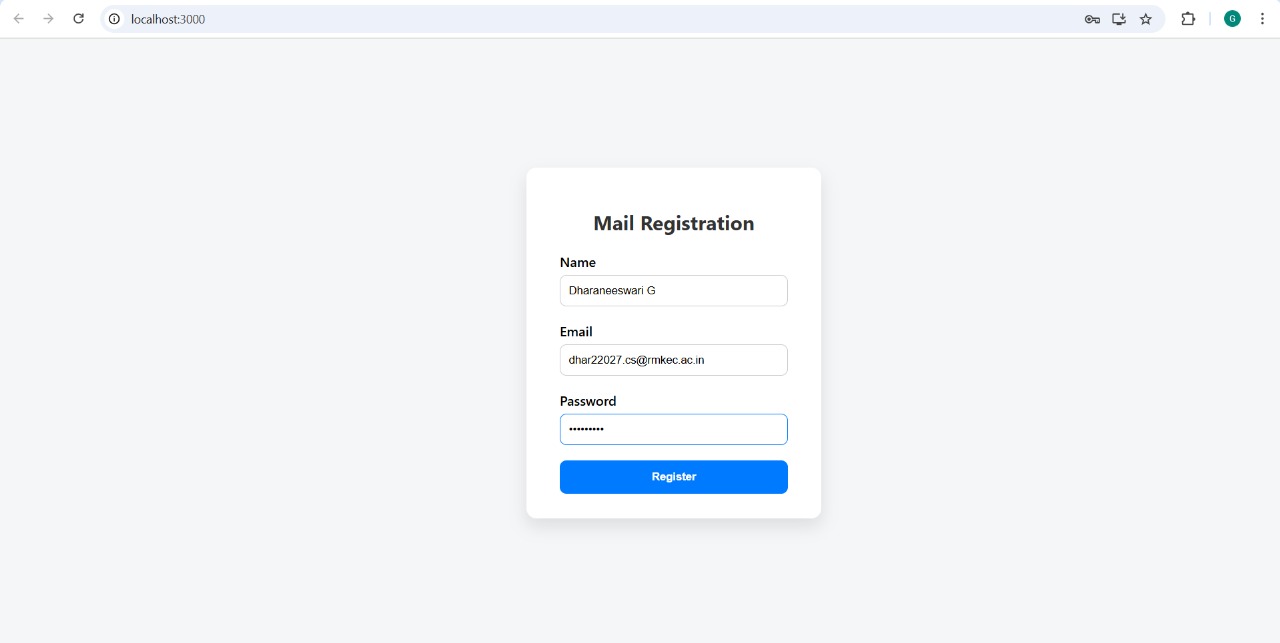
</div>

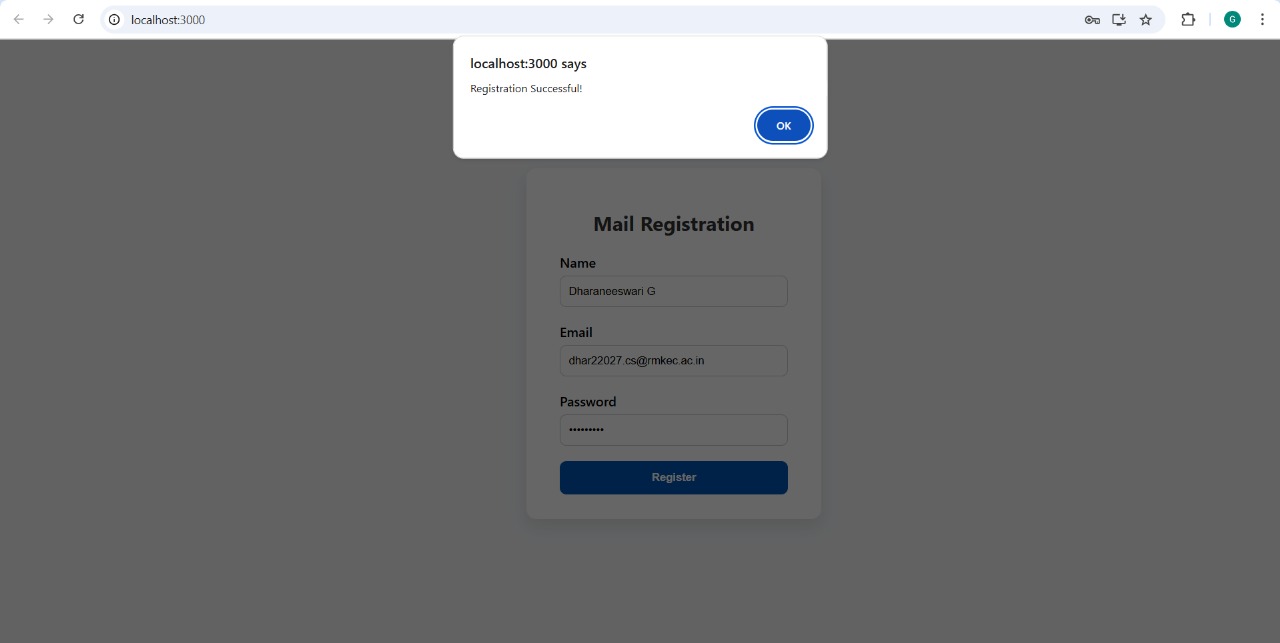
);

};

export default Register;

**Output:**





**Exercise 17: User App**

**// App.js**

import React from 'react';

import GetUser from './GetUser';

function App() {

return (

<div className="App">

<h1>Random User Information</h1>

<GetUser />

</div>

);

}

export default App;

**// GetUser.js**

import React, { Component } from 'react';

class GetUser extends Component {

constructor(props) {

super(props);

this.state = {

title: '',

firstName: '',

imageUrl: '',

isLoading: true,

error: null,

};

}

componentDidMount() {

fetch('https://api.randomuser.me/')

.then((response) => {

if (!response.ok) {

throw new Error('Network response was not ok');

}

return response.json();

})

.then((data) => {

const user = data.results[0];

this.setState({

title: user.name.title,

firstName: user.name.first,

imageUrl: user.picture.large,

isLoading: false,

});

})

.catch((error) => {

this.setState({ error, isLoading: false });

});

}

render() {

const { title, firstName, imageUrl, isLoading, error } = this.state;

if (isLoading) return <p>Loading user details...</p>;

if (error) return <p>Error: {error.message}</p>;

return (

<div>

<h2>{title} {firstName}</h2>

<img src={imageUrl} alt="User" />

</div>

);

}

}

export default GetUser;

**Output:**

