**React**

**9. ReactJS-HOL hands-on:**

**Code**

import React from 'react';

const ListofPlayers = () => {

  const players = [

    { name: 'Virat', score: 95 },

    { name: 'Rohit', score: 88 },

    { name: 'Dhoni', score: 78 },

    { name: 'Pant', score: 65 },

    { name: 'Hardik', score: 55 },

    { name: 'Jadeja', score: 72 },

    { name: 'Shami', score: 40 },

    { name: 'Bumrah', score: 90 },

    { name: 'Gill', score: 75 },

    { name: 'Surya', score: 60 },

    { name: 'Ashwin', score: 82 },

  ];

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

  return (

    <div>

      <h2>All Players (Using map)</h2>

      <ul>

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

          <li key={index}>{player.name} - {player.score}</li>

        ))}

      </ul>

      <h2>Players with score below 70 (Arrow + Filter)</h2>

      <ul>

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

          <li key={index}>{player.name} - {player.score}</li>

        ))}

      </ul>

    </div>

  );

};

export default ListofPlayers;

import React from 'react';

const IndianPlayers = () => {

  const T20Players = ['Virat', 'Rohit', 'Hardik', 'Surya'];

  const RanjiTrophyPlayers = ['Rahane', 'Pujara', 'Jadeja'];

  const allPlayers = [...T20Players, ...RanjiTrophyPlayers];

  const oddTeam = allPlayers.filter((\_, i) => i % 2 !== 0);

  const evenTeam = allPlayers.filter((\_, i) => i % 2 === 0);

  return (

    <div>

      <h2>Merged Players</h2>

      <ul>

        {allPlayers.map((player, i) => (

          <li key={i}>{player}</li>

        ))}

      </ul>

      <h2>Even Team Players (Destructured)</h2>

      <ul>

        {evenTeam.map((player, i) => (

          <li key={i}>{player}</li>

        ))}

      </ul>

      <h2>Odd Team Players (Destructured)</h2>

      <ul>

        {oddTeam.map((player, i) => (

          <li key={i}>{player}</li>

        ))}

      </ul>

    </div>

  );

};

export default IndianPlayers;

import React from 'react';

import ListofPlayers from './ListofPlayers';

import IndianPlayers from './IndianPlayers';

function App() {

  const flag = true;

  return (

    <div className="App">

      <h1>🏏 Cricket App</h1>

      {flag ? <ListofPlayers /> : <IndianPlayers />}

    </div>

  );

}

export default App;



import React from 'react';

import ListofPlayers from './ListofPlayers';

import IndianPlayers from './IndianPlayers';

function App() {

  const flag = false;

  return (

    <div className="App">

      <h1>🏏 Cricket App</h1>

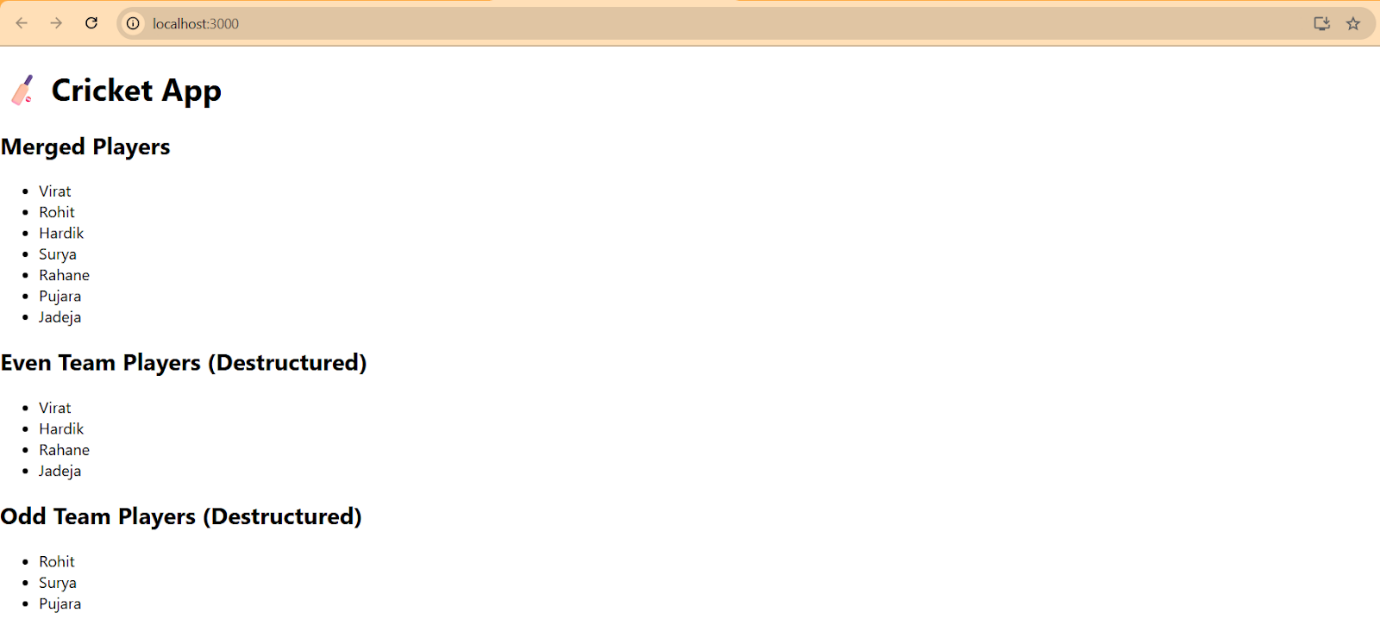
      {flag ? <ListofPlayers /> : <IndianPlayers />}

    </div>

  );

}

export default App;



**10. ReactJS-HOL hands-on:**

**Code**

import React from 'react';

function App() {

  const heading = <h1 style={{ textAlign: 'center' }}>🏢 Office Space Rental App</h1>;

  const featuredOffice = {

  name: 'WeWork Galaxy',

  rent: 80000,

  address: 'MG Road, Bengaluru',

  image: 'https://images.unsplash.com/photo-1504384308090-c894fdcc538d?fit=crop&w=500&q=60'

};

  const officeSpaces = [

  {

    name: 'IndiQube Alpha',

    rent: 78000,

    address: 'HSR Layout, Bengaluru',

    image: 'https://media.istockphoto.com/id/1253619009/photo/modern-office-interior.jpg?s=612x612&w=is&k=20&c=IPBw7vv3nldqp\_B7YudySVptRjlDUxS5V2HPw0cUSpA='

  },

  {

    name: 'Awfis Prestige',

    rent: 69000,

    address: 'Whitefield, Bengaluru',

    image: 'https://images.unsplash.com/photo-1631193816258-28b44b21e78b?q=80&w=1170&auto=format&fit=crop&ixlib=rb-4.1.0&ixid=M3wxMjA3fDB8MHxwaG90by1wYWdlfHx8fGVufDB8fHx8fA%3D%3D'

  },

  {

    name: 'Regus RMZ',

    rent: 58000,

    address: 'Hebbal, Bengaluru',

    image: 'https://images.unsplash.com/photo-1431540015161-0bf868a2d407?fm=jpg&ixid=M3wxMjA3fDB8MHxzZWFyY2h8N3x8b2ZmaWNlJTIwYnVpbGRpbmd8ZW58MHx8MHx8fDA%3D&ixlib=rb-4.1.0&q=60&w=3000'

  }

];

  const rentStyle = (rent) => ({

    color: rent >= 60000 ? 'green' : 'red',

    fontWeight: 'bold'

  });

  return (

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

      {heading}

      <h2>Featured Office</h2>

      <img src={featuredOffice.image} alt="Featured Office" style={{ width: '100%', maxWidth: '500px' }} />

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

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

      <p><strong>Rent:</strong> <span style={rentStyle(featuredOffice.rent)}>₹{featuredOffice.rent}</span></p>

      <hr />

      <h2>Available Office Spaces</h2>

      <div style={{ display: 'flex', gap: '20px', flexWrap: 'wrap' }}>

        {officeSpaces.map((office, index) => (

          <div key={index} style={{ border: '1px solid #ddd', padding: '10px', width: '300px' }}>

            <img src={office.image} alt={office.name} style={{ width: '100%' }} />

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

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

            <p><strong>Rent:</strong> <span style={rentStyle(office.rent)}>₹{office.rent}</span></p>

          </div>

        ))}

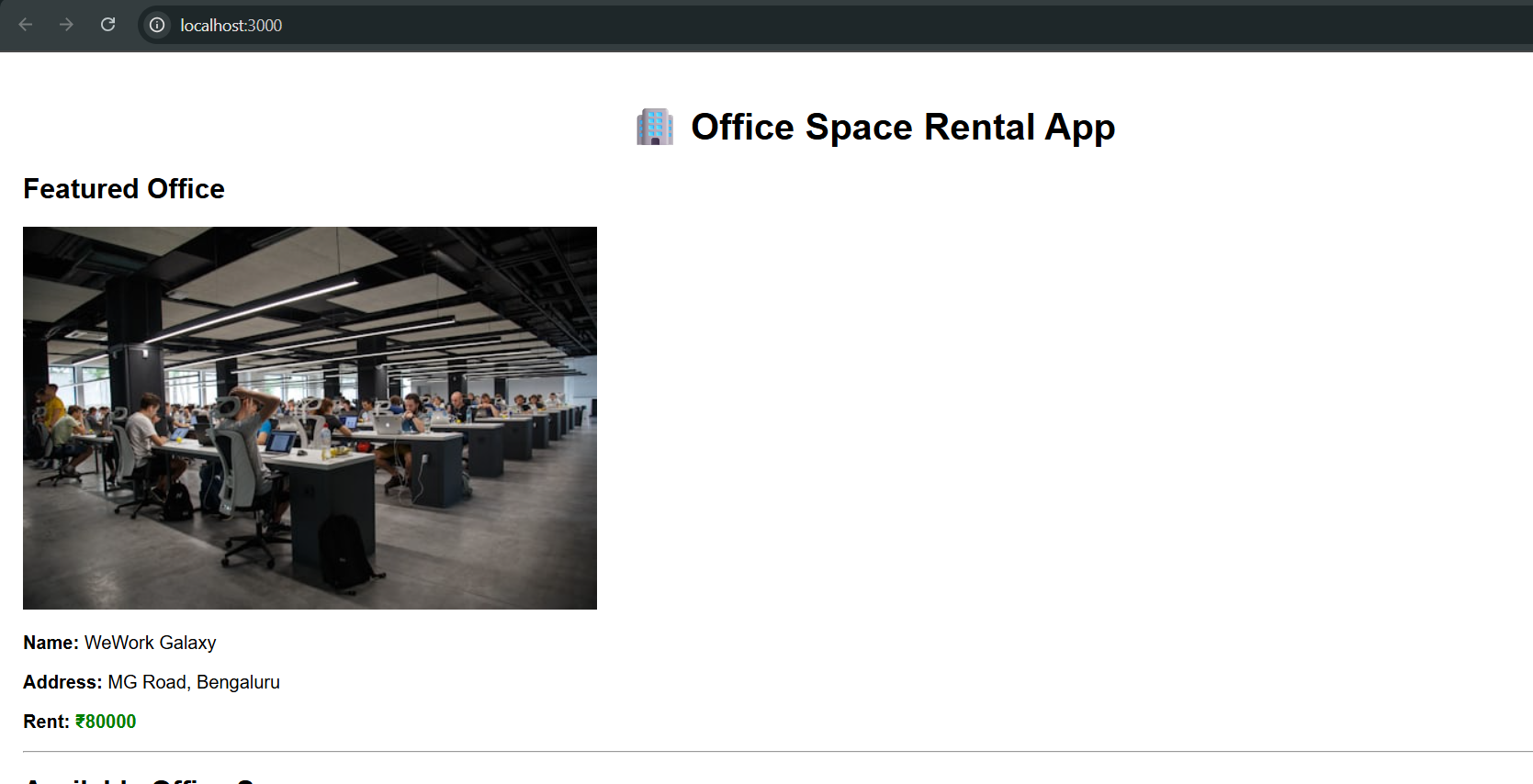
      </div>

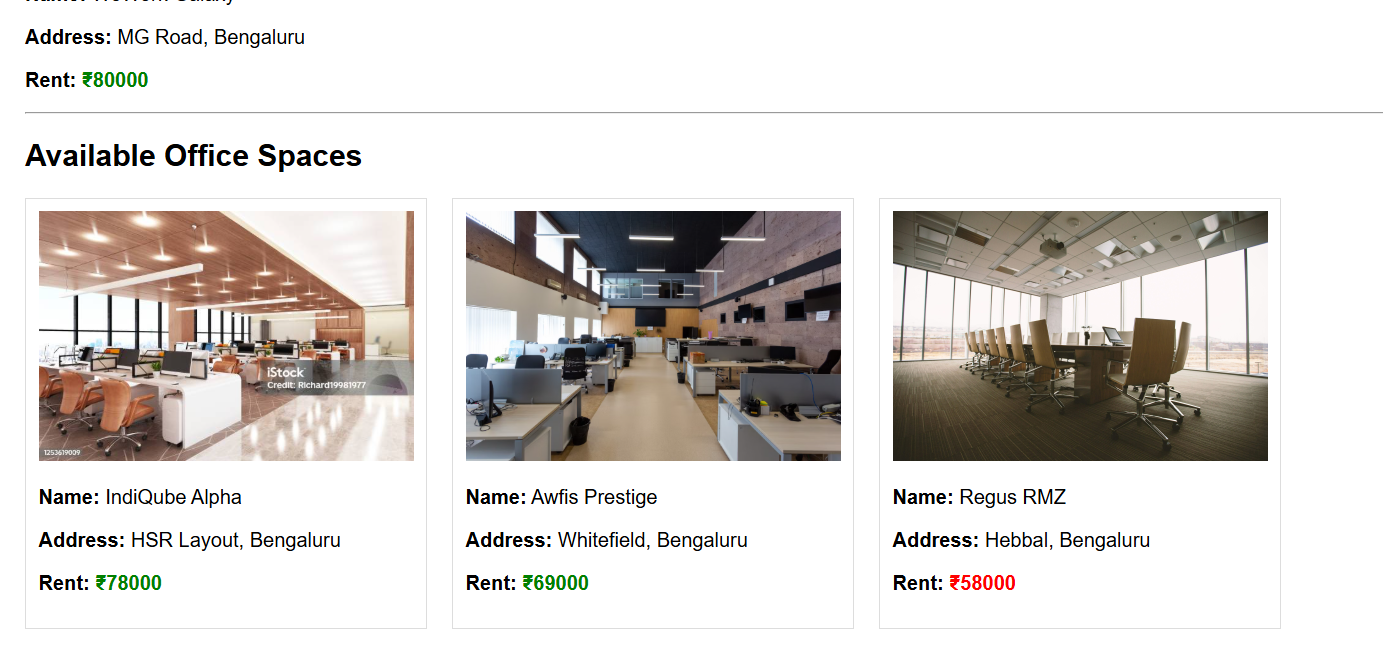
    </div>

  );

}

export default App;





**11. ReactJS-HOL hands-on:**

**Code**

import React, { Component } from 'react';

class Counter extends Component {

  constructor(props) {

    super(props);

    this.state = { count: 0 };

    this.increment = this.increment.bind(this);

    this.sayHello = this.sayHello.bind(this);

    this.incrementAndGreet = this.incrementAndGreet.bind(this);

    this.decrement = this.decrement.bind(this);

  }

  increment() {

    this.setState(prev => ({ count: prev.count + 1 }));

  }

  sayHello() {

    console.log('Hello! This is a static message.');

  }

  incrementAndGreet() {

    this.increment();

    this.sayHello();

  }

  decrement() {

    this.setState(prev => ({ count: prev.count - 1 }));

  }

  render() {

    return (

      <div>

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

        <button onClick={this.incrementAndGreet}>Increment</button>

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

      </div>

    );

  }

}

export default Counter;

import React from 'react';

const WelcomeButton = () => {

  const sayWelcome = (message) => {

    alert(message);

  };

  return (

    <div>

      <button onClick={() => sayWelcome("Welcome to React Events!")}>

        Say Welcome

      </button>

    </div>

  );

};

export default WelcomeButton;

import React from 'react';

const SyntheticEventButton = () => {

  const handleClick = (event) => {

    event.preventDefault();

    alert('I was clicked');

  };

  return (

    <div>

      <button onClick={handleClick}>Click Me (Synthetic Event)</button>

    </div>

  );

};

export default SyntheticEventButton;

import React, { useState } from 'react';

const CurrencyConvertor = () => {

  const [rupees, setRupees] = useState('');

  const [euros, setEuros] = useState('');

  const handleSubmit = (e) => {

    e.preventDefault();

    const converted = (parseFloat(rupees) / 90).toFixed(2);

    setEuros(converted);

  };

  return (

    <div>

      <h3>Currency Convertor</h3>

      <form onSubmit={handleSubmit}>

        <input

          type="number"

          value={rupees}

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

          placeholder="Enter amount in ₹"

          required

        />

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

      </form>

      {euros && <p>€ {euros}</p>}

    </div>

  );

};

export default CurrencyConvertor;

import React from 'react';

import Counter from './Counter';

import WelcomeButton from './WelcomeButton';

import SyntheticEventButton from './SyntheticEventButton';

import CurrencyConvertor from './CurrencyConvertor';

function App() {

  return (

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

      <h1>🎯 Event Examples App</h1>

      <Counter />

      <hr />

      <WelcomeButton />

      <hr />

      <SyntheticEventButton />

      <hr />

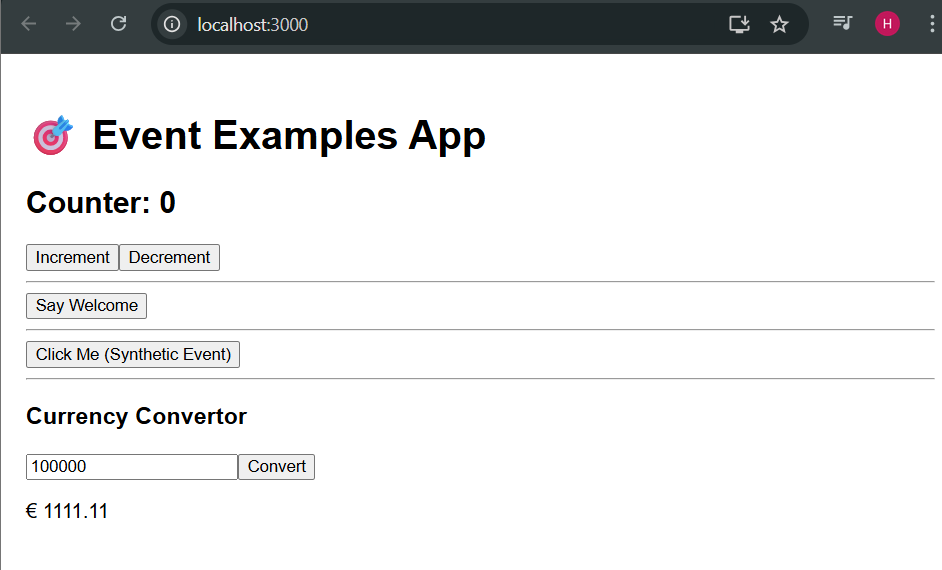
      <CurrencyConvertor />

    </div>

  );

}

export default App;



**12. ReactJS-HOL hands-on:**

**Code**

import React from 'react';

const GuestPage = () => {

  return (

    <div>

      <h2>Welcome Guest ✈️</h2>

      <p>You can browse available flight details below.</p>

      <ul>

        <li>Flight: Indigo 6E-203 | From: Delhi | To: Mumbai | Time: 08:00 AM</li>

        <li>Flight: Air India AI-123 | From: Chennai | To: Bangalore | Time: 10:30 AM</li>

      </ul>

    </div>

  );

};

export default GuestPage;

import React from 'react';

const UserPage = () => {

  return (

    <div>

      <h2>Welcome Back! 👤</h2>

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

      <button>Book Indigo 6E-203</button>

      <button>Book Air India AI-123</button>

    </div>

  );

};

export default UserPage;

import React, { useState } from 'react';

import GuestPage from './GuestPage';

import UserPage from './UserPage';

function App() {

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

  let displayPage;

  if (isLoggedIn) {

    displayPage = <UserPage />;

  } else {

    displayPage = <GuestPage />;

  }

  const isBlocked = false;

  if (isBlocked) return <h3>User access is restricted.</h3>;

  return (

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

      <h1>🎟️ Ticket Booking App</h1>

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

        {isLoggedIn ? (

          <button onClick={() => setIsLoggedIn(false)}>Logout</button>

        ) : (

          <button onClick={() => setIsLoggedIn(true)}>Login</button>

        )}

      </div>

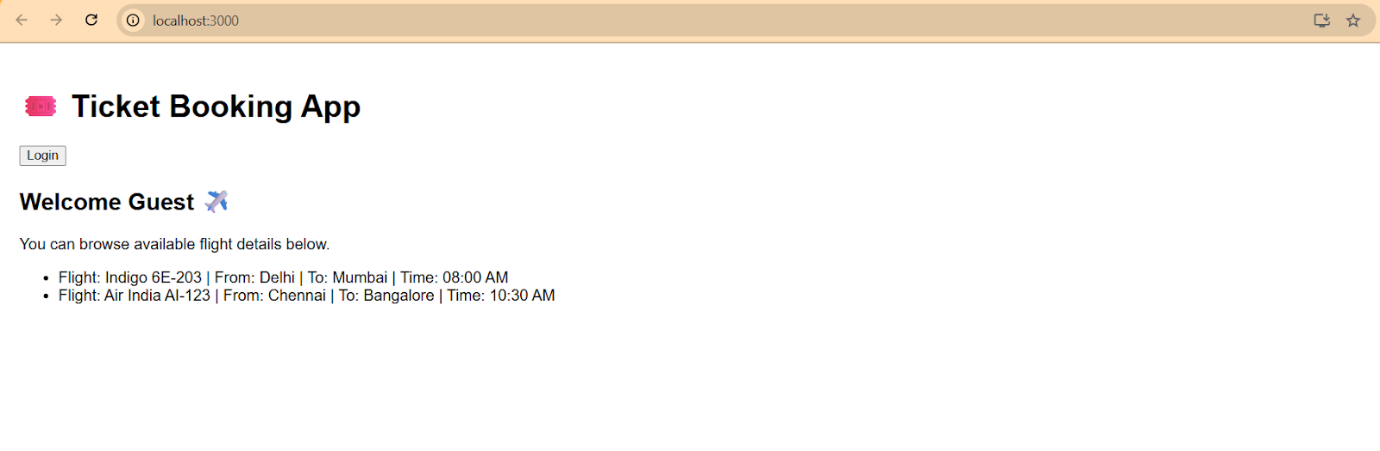
      {displayPage}

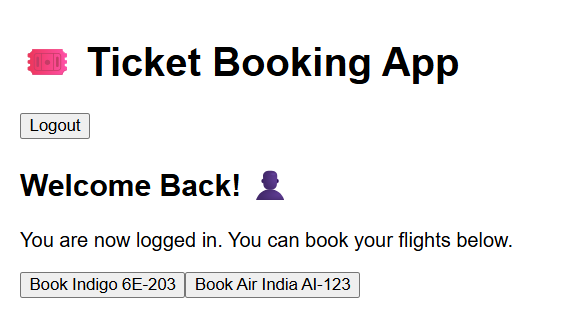
    </div>

  );

}

export default App;

****

****

**13. ReactJS-HOL hands-on:**

**Code**

import React from 'react';

const BookDetails = ({ books }) => {

  return (

    <div>

      <h3>📚 Book Details</h3>

      <ul>

        {books.map((book, index) => (

          <li key={index}>

            <strong>{book.title}</strong> by {book.author}

          </li>

        ))}

      </ul>

    </div>

  );

};

export default BookDetails;

import React from 'react';

const BlogDetails = ({ blogs }) => {

  return (

    <div>

      <h3>📝 Blog Details</h3>

      <ul>

        {blogs.map((blog) => (

          <li key={blog.id}>

            <strong>{blog.title}</strong> - {blog.category}

          </li>

        ))}

      </ul>

    </div>

  );

};

export default BlogDetails;

import React from 'react';

const CourseDetails = ({ courses }) => {

  return (

    <div>

      <h3>🎓 Course Details</h3>

      <ul>

        {courses.map((course) => (

          <li key={course.id}>

            {course.name} ({course.duration})

          </li>

        ))}

      </ul>

    </div>

  );

};

export default CourseDetails;

import React, { useState } from 'react';

import BookDetails from './BookDetails';

import BlogDetails from './BlogDetails';

import CourseDetails from './CourseDetails';

function App() {

  const [selected, setSelected] = useState('books');

  const books = [

    { title: 'The Alchemist', author: 'Paulo Coelho' },

    { title: 'Ikigai', author: 'Francesc Miralles' },

  ];

  const blogs = [

    { id: 1, title: 'React 18 Features', category: 'React' },

    { id: 2, title: 'Understanding JS Closures', category: 'JavaScript' },

  ];

  const courses = [

    { id: 'c1', name: 'Full Stack Development', duration: '6 Months' },

    { id: 'c2', name: 'Data Science', duration: '3 Months' },

  ];

  let displayComponent;

  if (selected === 'books') {

    displayComponent = <BookDetails books={books} />;

  } else if (selected === 'blogs') {

    displayComponent = <BlogDetails blogs={blogs} />;

  } else if (selected === 'courses') {

    displayComponent = <CourseDetails courses={courses} />;

  } else {

    displayComponent = <p>Select an option to view details.</p>;

  }

  return (

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

      <h1>🧠 Blogger App</h1>

      <div style={{ marginBottom: '20px' }}>

        <button onClick={() => setSelected('books')}>Book Details</button>

        <button onClick={() => setSelected('blogs')}>Blog Details</button>

        <button onClick={() => setSelected('courses')}>Course Details</button>

      </div>

      {/\* Using if-else variable \*/}

      {displayComponent}

      {/\* Inline ternary rendering \*/}

      {/\* Optional extra way: \*/}

      {/\* {selected === 'books' ? <BookDetails books={books} /> : null} \*/}

    </div>

  );

}

export default App;

****

****

****

**14. ReactJS-HOL hands-on:**

**Code**

import { createContext } from 'react';

// Create ThemeContext with default value 'light'

const ThemeContext = createContext('light');

export default ThemeContext;

import React, { useState } from 'react';

import EmployeesList from './EmployeesList';

import ThemeContext from './ThemeContext';

function App() {

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

  return (

    // Provide theme to entire app

    <ThemeContext.Provider value={theme}>

      <div className="App">

        <h1>Employee Management</h1>

        {/\* Theme is no longer passed as prop \*/}

        <EmployeesList />

      </div>

    </ThemeContext.Provider>

  );

}

export default App;

import React from 'react';

import EmployeeCard from './EmployeeCard';

function EmployeesList() {

  return (

    <div>

      {/\* Theme prop removed \*/}

      <EmployeeCard />

    </div>

  );

}

export default EmployeesList;

import React, { useContext } from 'react';

import ThemeContext from './ThemeContext';

function EmployeeCard() {

  // Access context value

  const theme = useContext(ThemeContext);

  // Choose class based on theme

  const buttonClass = theme === 'dark' ? 'btn-dark' : 'btn-light';

  return (

    <div className="employee-card">

      <h3>John Doe</h3>

      <p>Software Developer</p>

      <button className={buttonClass}>View Profile</button>

    </div>

  );

}

export default EmployeeCard;

.btn-light {

  background-color: #fff;

  color: #333;

  border: 1px solid #333;

  padding: 8px 12px;

  margin-top: 10px;

}

.btn-dark {

  background-color: #333;

  color: #fff;

  border: 1px solid #fff;

  padding: 8px 12px;

  margin-top: 10px;

**}**

****

**15. ReactJS-HOL hands-on:**

**Code**

import React, { useState } from 'react';

function ComplaintRegister() {

  const [employeeName, setEmployeeName] = useState('');

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

  const handleSubmit = (e) => {

    e.preventDefault();

    const referenceNumber = 'REF-' + Math.floor(Math.random() \* 1000000);

    alert(

      `Complaint submitted!\nName: ${employeeName}\nComplaint: ${complaint}\nReference Number: ${referenceNumber}`

    );

    setEmployeeName('');

    setComplaint('');

  };

  return (

    <div style={{ maxWidth: '600px', margin: '40px auto' }}>

      <h2>Complaint Registration Form</h2>

      <form onSubmit={handleSubmit}>

        <div style={{ marginBottom: '16px' }}>

          <label>Employee Name:</label>

          <br />

          <input

            type="text"

            value={employeeName}

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

            required

            style={{ width: '100%', padding: '8px' }}

          />

        </div>

        <div style={{ marginBottom: '16px' }}>

          <label>Complaint:</label>

          <br />

          <textarea

            value={complaint}

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

            required

            rows="4"

            style={{ width: '100%', padding: '8px' }}

          ></textarea>

        </div>

        <button type="submit" style={{ padding: '10px 20px' }}>

          Submit Complaint

        </button>

      </form>

    </div>

  );

}

export default ComplaintRegister;

import React from 'react';

import ComplaintRegister from './ComplaintRegister';

function App() {

  return (

    <div className="App">

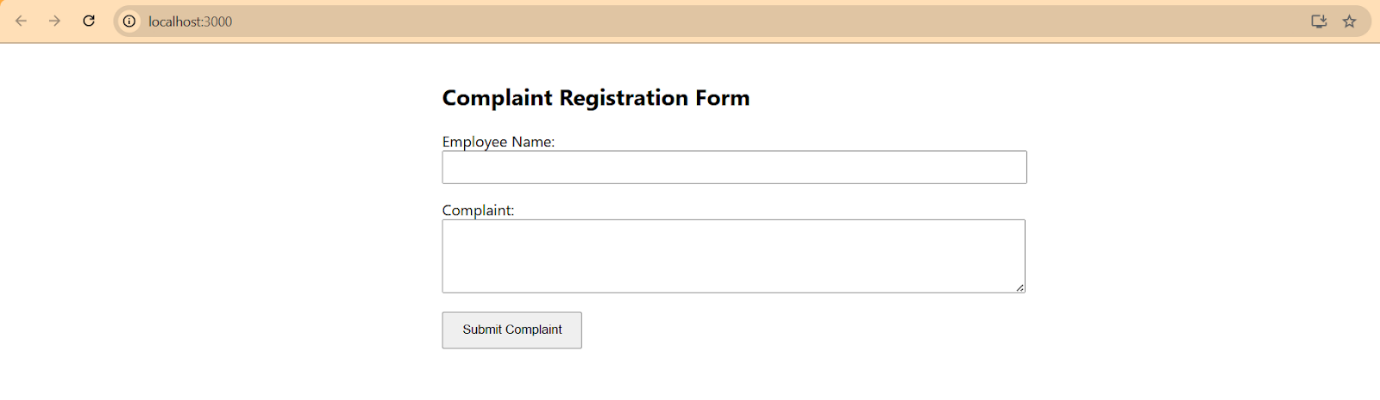
      <ComplaintRegister />

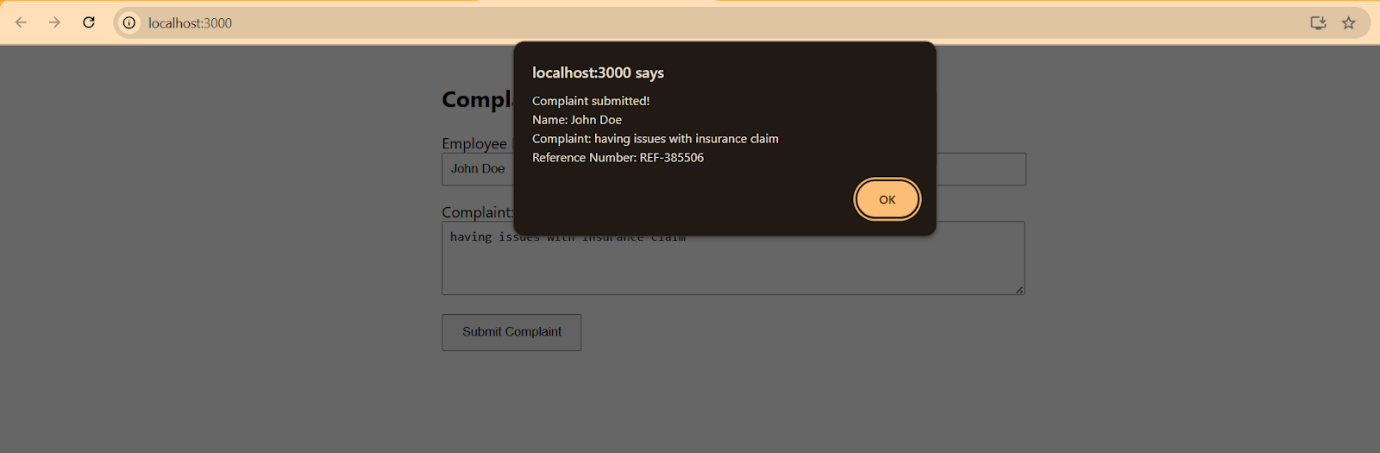
    </div>

  );

}

export default App;

****

****

**16. ReactJS-HOL hands-on:**

**Code**

import React, { useState } from 'react';

function Register() {

  const [form, setForm] = useState({

    name: '',

    email: '',

    password: '',

  });

  const [errors, setErrors] = useState({});

  const handleSubmit = (e) => {

    e.preventDefault();

    const newErrors = {};

    if (form.name.length < 5) {

      newErrors.name = 'Name must be at least 5 characters long.';

    }

    if (!form.email.includes('@') || !form.email.includes('.')) {

      newErrors.email = 'Email must include "@" and "."';

    }

    if (form.password.length < 8) {

      newErrors.password = 'Password must be at least 8 characters long.';

    }

    setErrors(newErrors);

    if (Object.keys(newErrors).length === 0) {

      alert('Registration successful!');

      setForm({ name: '', email: '', password: '' }); // reset form

    }

  };

  const handleChange = (e) => {

    const { name, value } = e.target;

    setForm((prev) => ({ ...prev, [name]: value }));

  };

  return (

    <div style={{ maxWidth: '500px', margin: '40px auto' }}>

      <h2>Register</h2>

      <form onSubmit={handleSubmit}>

        {/\* Name Field \*/}

        <div style={{ marginBottom: '16px' }}>

          <label>Name:</label><br />

          <input

            type="text"

            name="name"

            value={form.name}

            onChange={handleChange}

            required

            style={{ width: '100%', padding: '8px' }}

          />

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

        </div>

        {/\* Email Field \*/}

        <div style={{ marginBottom: '16px' }}>

          <label>Email:</label><br />

          <input

            type="email"

            name="email"

            value={form.email}

            onChange={handleChange}

            required

            style={{ width: '100%', padding: '8px' }}

          />

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

        </div>

        {/\* Password Field \*/}

        <div style={{ marginBottom: '16px' }}>

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

          <input

            type="password"

            name="password"

            value={form.password}

            onChange={handleChange}

            required

            style={{ width: '100%', padding: '8px' }}

          />

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

        </div>

        <button type="submit" style={{ padding: '10px 20px' }}>

          Register

        </button>

      </form>

    </div>

  );

}

export default Register;

import React from 'react';

import Register from './Register';

function App() {

  return (

    <div className="App">

      <Register />

    </div>

  );

}

export default App;

