React

1. ReactJS-HOL

ListofPlayers.js:  
// src/components/ListofPlayers.js

import React from 'react';

const players = [

{ name: 'Virat', score: 85 },

{ name: 'Rohit', score: 90 },

{ name: 'Gill', score: 65 },

{ name: 'Rahul', score: 50 },

{ name: 'Pant', score: 74 },

{ name: 'Kohli', score: 67 },

{ name: 'Bumrah', score: 45 },

{ name: 'Jadeja', score: 95 },

{ name: 'Ashwin', score: 88 },

{ name: 'Shami', score: 40 },

{ name: 'Sky', score: 78 }

];

// Filter players with score >= 70 using arrow function

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

const ListofPlayers = () => (

<div>

<h2>High Scoring Players (Score >= 70)</h2>

<ul>

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

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

))}

</ul>

</div>

);

export default ListofPlayers;

IndianPlayers.js

// src/components/IndianPlayers.js

import React from 'react';

const IndianPlayers = () => {

const allPlayers = ['Virat', 'Rohit', 'Gill', 'Rahul', 'Pant', 'Kohli'];

// Destructuring odd and even index players

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

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

const T20players = ['Dhoni', 'Hardik', 'Bhuvi'];

const RanjiPlayers = ['Pujara', 'Saha', 'Iyer'];

// Merge arrays using spread operator

const mergedPlayers = [...T20players, ...RanjiPlayers];

return (

<div>

<h2>Odd Team Players</h2>

<ul>

{oddTeam.map((player, index) => <li key={index}>{player}</li>)}

</ul>

<h2>Even Team Players</h2>

<ul>

{evenTeam.map((player, index) => <li key={index}>{player}</li>)}

</ul>

<h2>Merged Team (T20 + Ranji)</h2>

<ul>

{mergedPlayers.map((player, index) => <li key={index}>{player}</li>)}

</ul>

</div>

);

};

export default IndianPlayers;

App.js

// src/App.js

import React from 'react';

import ListofPlayers from './components/ListofPlayers';

import IndianPlayers from './components/IndianPlayers';

function App() {

const flag = true; // change this to false to test both components

return (

<div className="App">

<h1>Cricket App</h1>

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

</div>

);

}

export default App;

1. ReactJS-HOL

OfficeList.js

import React from 'react';

// List of office objects

const officeSpaces = [

{

name: "Tech Park HQ",

rent: 75000,

address: "MG Road, Bangalore",

image: "https://via.placeholder.com/300x200"

},

{

name: "StartUp Hub",

rent: 55000,

address: "Koramangala, Bangalore",

image: "https://via.placeholder.com/300x200"

},

{

name: "Co-Work Nest",

rent: 60000,

address: "Indiranagar, Bangalore",

image: "https://via.placeholder.com/300x200"

}

];

// Office Card Component

const OfficeCard = ({ office }) => {

const rentStyle = {

color: office.rent < 60000 ? 'red' : office.rent > 60000 ? 'green' : 'black'

};

return (

<div style={{

border: '1px solid #ccc',

padding: '10px',

margin: '10px',

borderRadius: '5px',

width: '300px'

}}>

<h2>{office.name}</h2>

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

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

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

</div>

);

};

// OfficeList Component

const OfficeList = () => {

return (

<div>

<h1>Office Space Rental App</h1>

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

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

<OfficeCard key={index} office={office} />

))}

</div>

</div>

);

};

export default OfficeList;

App.js

// src/App.js

import React from 'react';

import OfficeList from './components/OfficeList';

function App() {

return (

<div className="App">

<OfficeList />

</div>

);

}

export default App;

1. ReactJS-HOL

Counter.js

import React, { useState } from 'react';

const Counter = () => {

const [count, setCount] = useState(0);

const sayHello = () => {

alert("Hello! Welcome to the counter app.");

};

const increment = () => {

setCount(prev => prev + 1);

sayHello(); // multiple actions

};

const decrement = () => {

setCount(prev => prev - 1);

};

return (

<div>

<h2>Counter: {count}</h2>

<button onClick={increment}>Increment</button>

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

</div>

);

};

export default Counter;

SayWelcome.js

import React from 'react';

const SayWelcome = () => {

const handleWelcome = (msg) => {

alert(`Message: ${msg}`);

};

return (

<div>

<h3>Custom Welcome Message</h3>

<button onClick={() => handleWelcome('Welcome to React Event Handling!')}>Say Welcome</button>

</div>

);

};

export default SayWelcome;

SyntheticEventExample.js

import React from 'react';

const SyntheticEventExample = () => {

const handleClick = (event) => {

// event is a SyntheticEvent

alert("I was clicked");

console.log(event); // Inspect SyntheticEvent object

};

return (

<div>

<h3>Synthetic Event Demo</h3>

<button onClick={handleClick}>Click Me</button>

</div>

);

};

export default SyntheticEventExample;

CurrencyConvertor.js

import React, { useState } from 'react';

const CurrencyConvertor = () => {

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

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

const handleSubmit = (e) => {

e.preventDefault(); // prevent default form refresh

const rate = 0.011; // example conversion rate

setEuros((parseFloat(rupees) \* rate).toFixed(2));

};

return (

<div>

<h3>Currency Convertor</h3>

<form onSubmit={handleSubmit}>

<input

type="number"

value={rupees}

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

placeholder="Enter amount in INR"

/>

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

</form>

{euros !== null && <p>{rupees} INR = €{euros}</p>}

</div>

);

};

export default CurrencyConvertor;

App.js

// src/App.js

import React from 'react';

import Counter from './components/Counter';

import SayWelcome from './components/SayWelcome';

import SyntheticEventExample from './components/SyntheticEventExample';

import CurrencyConvertor from './components/CurrencyConvertor';

function App() {

return (

<div className="App">

<h1>React Event Examples App</h1>

<Counter />

<SayWelcome />

<SyntheticEventExample />

<CurrencyConvertor />

</div>

);

}

export default App;

1. ReactJS-HOL

FlightDetails.js

// src/components/FlightDetails.js

import React from 'react';

const FlightDetails = () => {

return (

<div>

<h2>Flight Details</h2>

<ul>

<li>Flight: AI202 | From: Delhi | To: Mumbai | Price: ₹6500</li>

<li>Flight: AI303 | From: Bangalore | To: Chennai | Price: ₹3500</li>

</ul>

</div>

);

};

export default FlightDetails;

GuestPage.js

// src/components/GuestPage.js

import React from 'react';

import FlightDetails from './FlightDetails';

const GuestPage = () => {

return (

<div>

<h1>Welcome, Guest</h1>

<p>Please login to book your tickets.</p>

<FlightDetails />

</div>

);

};

export default GuestPage;

UserPage.js

// src/components/UserPage.js

import React from 'react';

import FlightDetails from './FlightDetails';

const UserPage = () => {

return (

<div>

<h1>Welcome, User</h1>

<p>You can now book tickets!</p>

<button>Book Ticket</button>

</div>

);

};

export default UserPage;

App.js

// src/App.js

import React, { useState } from 'react';

import GuestPage from './components/GuestPage';

import UserPage from './components/UserPage';

function App() {

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

// Element variable for conditional rendering

let page;

if (isLoggedIn) {

page = <UserPage />;

} else {

page = <GuestPage />;

}

// Prevent rendering of logout button if not logged in

const logoutButton = isLoggedIn ? (

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

) : null;

const loginButton = !isLoggedIn ? (

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

) : null;

return (

<div className="App">

<h1>Ticket Booking App</h1>

{loginButton}

{logoutButton}

{page}

</div>

);

}

export default App;

1. ReactJS-HOL

BookDetails.js

import React from 'react';

const BookDetails = () => {

const books = [

{ id: 1, title: 'React Mastery', author: 'John Doe' },

{ id: 2, title: 'Learning JavaScript', author: 'Jane Smith' }

];

return (

<div>

<h2>📚 Book Details</h2>

<ul>

{books.map(book => (

<li key={book.id}>

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

</li>

))}

</ul>

</div>

);

};

export default BookDetails;

BlogDetails.js

import React from 'react';

const BlogDetails = () => {

const blogs = [

{ id: 101, title: 'React Best Practices' },

{ id: 102, title: 'Understanding Props vs State' }

];

return (

<div>

<h2>📝 Blog Details</h2>

<ul>

{blogs.map(blog => (

<li key={blog.id}>{blog.title}</li>

))}

</ul>

</div>

);

};

export default BlogDetails;

CourseDetails.js

import React from 'react';

const CourseDetails = () => {

const courses = [

{ id: 'c1', name: 'Frontend with React' },

{ id: 'c2', name: 'Advanced JavaScript' }

];

return (

<div>

<h2>📘 Course Details</h2>

<ul>

{courses.map(course => (

<li key={course.id}>{course.name}</li>

))}

</ul>

</div>

);

};

export default CourseDetails;

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('books');

// 1. Element variable

let content;

if (activeTab === 'books') {

content = <BookDetails />;

} else if (activeTab === 'blogs') {

content = <BlogDetails />;

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

content = <CourseDetails />;

}

return (

<div className="App">

<h1>📖 Blogger App</h1>

<div>

<button onClick={() => setActiveTab('books')}>Show Books</button>

<button onClick={() => setActiveTab('blogs')}>Show Blogs</button>

<button onClick={() => setActiveTab('courses')}>Show Courses</button>

</div>

{/\* 2. Using element variable \*/}

{content}

{/\* 3. Ternary operator \*/}

{/\*

{activeTab === 'books' ? (

<BookDetails />

) : activeTab === 'blogs' ? (

<BlogDetails />

) : (

<CourseDetails />

)}

\*/}

{/\* 4. && Logical Operator \*/}

{/\* {activeTab === 'books' && <BookDetails />} \*/}

</div>

);

}

export default App;

1. ReactJS-HOL

ThemeContext.js

import { createContext } from 'react';

const ThemeContext = createContext('light'); // default value: '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'); // light or dark

return (

<ThemeContext.Provider value={theme}>

<div className="App">

<h1>Employee Management</h1>

<button onClick={() => setTheme(theme === 'light' ? 'dark' : 'light')}>

Toggle Theme

</button>

<EmployeesList />

</div>

</ThemeContext.Provider>

);

};

export default App;

EmployeesList.js

import React from 'react';

import EmployeeCard from './EmployeeCard';

const EmployeesList = () => {

const employees = [

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

{ id: 2, name: 'Bob', role: 'Backend Developer' },

];

return (

<div>

<h2>Employees</h2>

{employees.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); // access context

return (

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

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

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

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

</div>

);

};

export default EmployeeCard;

1. ReactJS-HOL

ComplaintRegister.js

import React, { useState } from 'react';

const ComplaintRegister = () => {

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

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

const handleSubmit = (e) => {

e.preventDefault(); // Prevent page reload

if (!employeeName || !complaint) {

alert("Please fill in all fields.");

return;

}

const refNumber = 'REF' + Math.floor(1000 + Math.random() \* 9000);

alert(`Complaint submitted successfully!\nReference Number: ${refNumber}`);

// Reset form

setEmployeeName('');

setComplaint('');

};

return (

<div>

<h2>Raise a Complaint</h2>

<form onSubmit={handleSubmit}>

<div>

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

<input

type="text"

value={employeeName}

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

placeholder="Enter your name"

/>

</div>

<div>

<label>Complaint:</label><br />

<textarea

value={complaint}

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

placeholder="Describe your issue"

rows="5"

cols="40"

></textarea>

</div>

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

</form>

</div>

);

};

export default ComplaintRegister;

App.js

import React from 'react';

import ComplaintRegister from './components/ComplaintRegister';

function App() {

return (

<div className="App">

<h1>Ticket Raising App</h1>

<ComplaintRegister />

</div>

);

}

export default App;

1. ReactJS-HOL

Register.js

import React, { useState } from 'react';

const Register = () => {

const [formData, setFormData] = useState({

name: '',

email: '',

password: ''

});

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

// Handle input change

const handleChange = (e) => {

const { name, value } = e.target;

setFormData((prev) => ({

...prev,

[name]: value,

}));

};

// Validate inputs

const validate = () => {

const newErrors = {};

if (formData.name.trim().length < 5) {

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

}

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

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

}

if (formData.password.length < 8) {

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

}

return newErrors;

};

// Handle submit

const handleSubmit = (e) => {

e.preventDefault();

const validationErrors = validate();

setErrors(validationErrors);

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

alert('Registration Successful!');

// Reset form

setFormData({

name: '',

email: '',

password: ''

});

}

};

return (

<div>

<h2>Register for Mail Service</h2>

<form onSubmit={handleSubmit}>

<div>

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

<input

type="text"

name="name"

value={formData.name}

onChange={handleChange}

placeholder="Enter your name"

/>

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

</div>

<div>

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

<input

type="email"

name="email"

value={formData.email}

onChange={handleChange}

placeholder="Enter your email"

/>

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

</div>

<div>

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

<input

type="password"

name="password"

value={formData.password}

onChange={handleChange}

placeholder="Enter your password"

/>

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

</div>

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

</form>

</div>

);

App.js

import React from 'react';

import Register from './Register';

function App() {

return (

<div className="App">

<h1>Mail Registration App</h1>

<Register />

</div>

);

}

export default App;

1. ReactJS-HOL

Getuser.js

import React, { Component } from 'react';

class Getuser extends Component {

constructor() {

super();

this.state = {

user: null,

isLoading: true,

error: null,

};

}

async componentDidMount() {

try {

const response = await fetch('https://api.randomuser.me/');

const data = await response.json();

const user = data.results[0];

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

} catch (error) {

this.setState({ error: 'Failed to fetch user', isLoading: false });

}

}

render() {

const { user, isLoading, error } = this.state;

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

if (error) return <p>{error}</p>;

return (

<div>

<h2>User Details</h2>

<p><strong>Title:</strong> {user.name.title}</p>

<p><strong>First Name:</strong> {user.name.first}</p>

<img src={user.picture.large} alt="User" />

</div>

);

}

}

export default Getuser;

App.js

import React from 'react';

import Getuser from './Getuser';

function App() {

return (

<div className="App">

<h1>Fetch Random User</h1>

<Getuser />

</div>

);

}

export default App;