1. **React HandsOn-9**

**App.js**

import React from 'react';

import ListofPlayers from "./components/ListofPlayers";

import IndianPlayers from "./components/IndianPlayers";

function App() {

  const flag = true;

  return (

    <div className="App">

      <h1>Cricket App</h1>

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

    </div>

  );

}

export default App;

**ListofPlayers.js**

import React from 'react';

function ListofPlayers() {

  const players = [

    { name: "Rohit", score: 90 },

    { name: "Virat", score: 85 },

    { name: "Dhoni", score: 95 },

    { name: "Hardik", score: 60 },

    { name: "Jadeja", score: 75 },

    { name: "Bumrah", score: 45 },

    { name: "Gill", score: 88 },

    { name: "Surya", score: 70 },

    { name: "Shreyas", score: 55 },

    { name: "KL Rahul", score: 78 },

    { name: "Ishan", score: 65 }

  ];

*// Filter using arrow function*

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

  return (

    <div>

      <h2>All Players</h2>

      <ul>

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

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

        ))}

      </ul>

      <h3>Players with score below 70</h3>

      <ul>

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

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

        ))}

      </ul>

    </div>

  );

}

export default ListofPlayers;

**IndianPlayers.js**

import React from 'react';

function IndianPlayers() {

  const allPlayers = [

    "Rohit", "Virat", "Dhoni", "Hardik", "Jadeja",

    "Bumrah", "Gill", "Surya", "Shreyas", "KL Rahul", "Ishan"

  ];

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

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

  const T20players = ["Rohit", "Surya", "Bumrah"];

  const RanjiTrophyPlayers = ["Pujara", "Karun", "Saha"];

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

  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 Players (T20 + Ranji Trophy)</h2>

      <ul>

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

      </ul>

    </div>

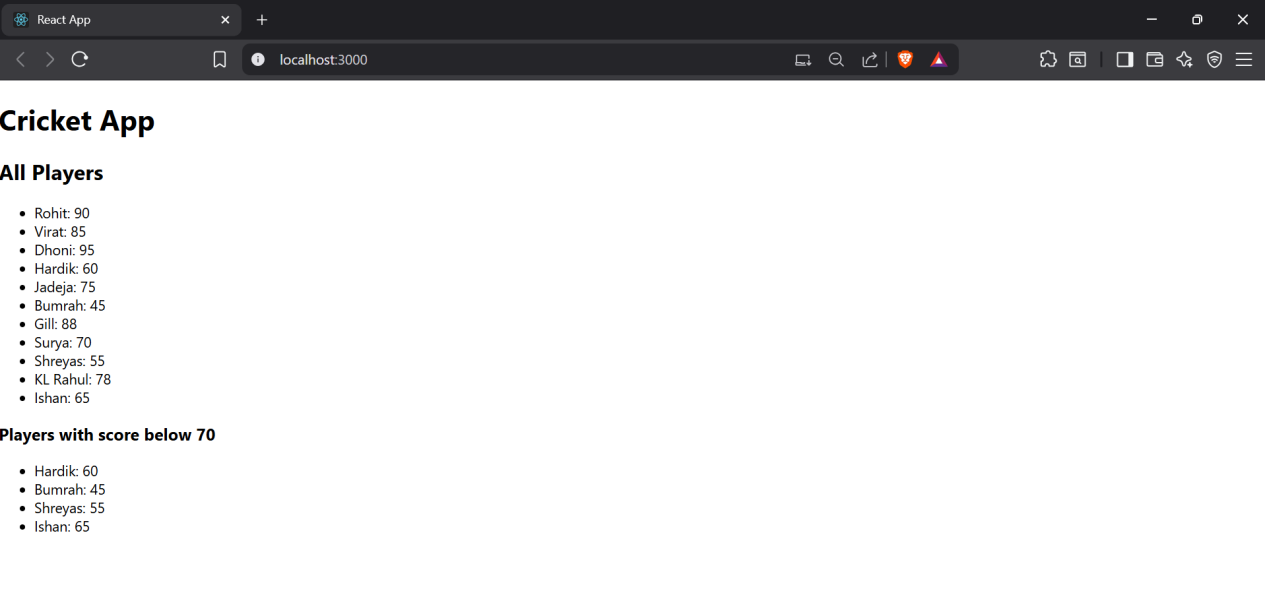
  );

}

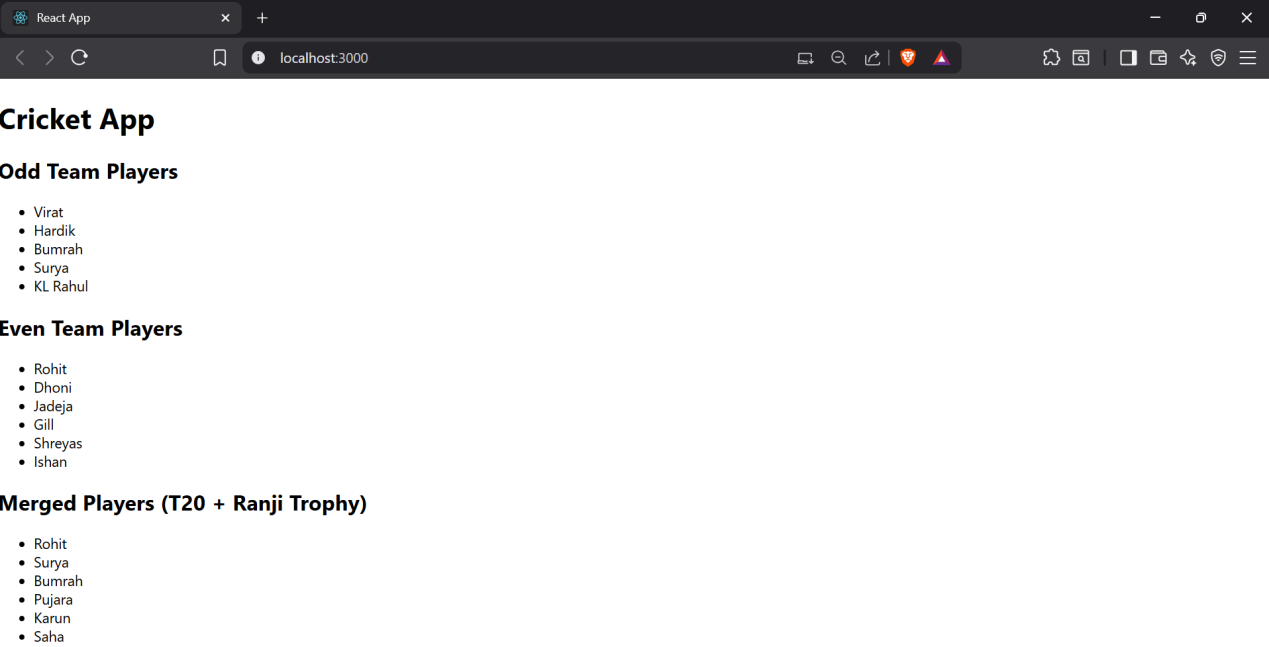
export default IndianPlayers;

**Output:**

**Flag==true**



**Flag==false:**



1. **React HandsOn-10**

**Features of ES6:**

· **let and const** – Block-scoped variable declarations.

· **Arrow Functions** – Shorter syntax for writing functions.

· **Classes** – Syntactic sugar over JavaScript’s prototype-based inheritance.

· **Template Literals** – Multi-line strings and embedded expressions.

· **Destructuring Assignment** – Unpacking values from arrays or properties from objects.

· **Default Parameters** – Set default values for function parameters.

· **Spread and Rest Operators** – ... for expanding or collecting elements.

· **Modules (import/export)** – Support for modular code.

· **Promises** – Handle asynchronous operations more cleanly.

· **Map and Set** – New data structures for storing key-value pairs and unique values.

· **for...of Loop** – Iterates over iterable objects like arrays.

**Explain Javascript let:**

· Introduced in ES6.

· Used to declare **block-scoped** variables.

· Cannot be re-declared in the same scope.

· Can be **updated**, but **not hoisted** like var (or hoisted in a TDZ - temporal dead zone).

**Difference between var and let:**

| **Feature** | **var** | **let** |
| --- | --- | --- |
| Scope | Function-scoped | Block-scoped |
| Hoisting | Yes (initialized as undefined) | Yes (but in TDZ) |
| Redeclaration | Allowed in same scope | Not allowed in same scope |
| Global Object | Attaches to window object | Doesn’t attach to window |

**JavaScript const**

* Also block-scoped like let.
* Used for **constants** (values that shouldn’t change).
* Must be **initialized at declaration**.
* Does **not make objects/arrays immutable**, only the binding is constant.

**Explain ES6 CLass Fundamentals:**

· **Class Declaration**:

class MyClass { }

· **Constructor Method**: Automatically called when a new object is created.

· **Method Definitions**: Define functions directly inside the class.

· **No function keyword**: Methods are defined without function.

·**Prototype-Based**: Still uses prototype behind the scenes, but syntax is cleaner.

**ES6 Class Inheritance:**

· extends **Keyword**: Used to create a class that inherits from another.

· super() **in Constructor**: Calls the parent class constructor.

· **Method Overriding**: Subclass can define its own version of methods.

**Define ES6 Arrow Functions:**

· **Short Syntax**:

const sum = (a, b) => a + b;

· **No** this **Binding**: Uses this from the surrounding lexical context.

· **No** arguments **Object**: Cannot access arguments like normal functions.

· **Cannot be used as constructors**: new keyword doesn't work with arrow functions.

· **Best For**: Callbacks, functional programming.

**Set in Javascript**

· **Collection of Unique Values**: No duplicates allowed.

· **Maintains Insertion Order**.

· **Methods**:

add(value): Adds a value.

has(value): Checks existence.

delete(value): Deletes value.

clear(): Removes all elements.

size: Returns count.

**Map in JavaScript**

· **Key-Value Pairs**: Like objects but allows any type as key.

· **Maintains Insertion Order**.

· **Methods**:

set(key, value): Adds/updates entry.

get(key): Retrieves value.

has(key): Checks existence.

delete(key): Removes entry.

clear(): Removes all entries.

size: Returns count.

1. **React HandsOn-11**

**App.js**

**import React, { useState } from 'react';**

**import './App.css';**

**import CurrencyConvertor from './CurrencyConvertor';**

**function App() {**

**const [counter, setCounter] = useState(0);**

**const increment = () => {**

**sayHello();**

**setCounter(prev => prev + 1);**

**};**

**const sayHello = () => {**

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

**};**

**const decrement = () => {**

**setCounter(prev => prev - 1);**

**};**

**const sayWelcome = (message) => {**

**alert(message);**

**};**

**const handlePress = (event) => {**

**alert("I was clicked");**

**console.log("Synthetic Event Type:", event.type);**

**};**

**return (**

**<div className="App">**

**<h1>Event Handling in React</h1>**

**<p>Counter: {counter}</p>**

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

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

**<br /><br />**

**<button onClick={() => sayWelcome("Welcome!")}>Say Welcome</button>**

**<br /><br />**

**<button onClick={handlePress}>Synthetic OnPress</button>**

**<br /><br />**

**<CurrencyConvertor />**

**</div>**

**);**

**}**

**export default App;**

**CurrencyConvertor.js**

**import React, { useState } from 'react';**

**const CurrencyConvertor = () => {**

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

**const [convertedAmount, setConvertedAmount] = useState(null);**

**const [currency, setCurrency] = useState('EUR');**

**const conversionRates = {**

**EUR: 0.011,**

**USD: 0.012,**

**GBP: 0.0095,**

**};**

**const handleSubmit = (e) => {**

**e.preventDefault();**

**const rate = conversionRates[currency];**

**const result = parseFloat(rupees) \* rate;**

**setConvertedAmount(result.toFixed(2));**

**};**

**return (**

**<div>**

**<h2>Currency Convertor</h2>**

**<form onSubmit={handleSubmit}>**

**<div>**

**<label>**

**INR:**

**<input**

**type="number"**

**value={rupees}**

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

**required**

**style={{ marginLeft: '5px' }}**

**/>**

**</label>**

**</div>**

**<div style={{ marginTop: '10px' }}>**

**<label>**

**Convert To:**

**<select**

**value={currency}**

**onChange={(e) => setCurrency(e.target.value)}**

**style={{ marginLeft: '5px' }}**

**>**

**<option value="EUR">Euro (EUR)</option>**

**<option value="USD">US Dollar (USD)</option>**

**<option value="GBP">British Pound (GBP)</option>**

**</select>**

**</label>**

**</div>**

**<button type="submit" style={{ marginTop: '10px' }}>Convert</button>**

**</form>**

**{convertedAmount !== null && (**

**<p>**

**{currency}: {currency === 'EUR' ? '€' : currency === 'USD' ? '$' : '£'}{convertedAmount}**

**</p>**

**)}**

**</div>**

**);**

**};**

**export default CurrencyConvertor;**

**OUTPUT:**

**A screenshot of a computer screen

AI-generated content may be incorrect.**

1. **React HandsOn-12**

**App.js**

**import React, { useState } from 'react';**

**import './App.css';**

**import GuestPage from './GuestPage';**

**import UserPage from './UserPage';**

**function App() {**

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

**const handleLogin = () => {**

**setIsLoggedIn(true);**

**};**

**const handleLogout = () => {**

**setIsLoggedIn(false);**

**};**

**let page;**

**if (isLoggedIn) {**

**page = <UserPage />;**

**} else {**

**page = <GuestPage />;**

**}**

**return (**

**<div className="App">**

**<h1>✈️ Flight Ticket Booking App</h1>**

**{isLoggedIn ? (**

**<button onClick={handleLogout}>Logout</button>**

**) : (**

**<button onClick={handleLogin}>Login</button>**

**)}**

**<hr />**

**{page}**

**</div>**

**);**

**}**

**export default App;**

**GuestPage.js**

**import React from 'react';**

**const GuestPage = () => {**

**return (**

**<div>**

**<h2>Welcome, Guest!</h2>**

**<p>You can view available flights but need to log in to book tickets.</p>**

**<ul>**

**<li>✈️ Flight A: Delhi → Mumbai - ₹5000</li>**

**<li>✈️ Flight B: Bangalore → Kolkata - ₹4500</li>**

**<li>✈️ Flight C: Chennai → Hyderabad - ₹3000</li>**

**</ul>**

**</div>**

**);**

**};**

**export default GuestPage;**

**UserPage.js**

**import React from 'react';**

**const UserPage = () => {**

**return (**

**<div>**

**<h2>Welcome, User!</h2>**

**<p>You can now book tickets:</p>**

**<ul>**

**<li>**

**✈️ Flight A: Delhi → Mumbai**

**<button style={{ marginLeft: '10px' }}>Book</button>**

**</li>**

**<li>**

**✈️ Flight B: Bangalore → Kolkata**

**<button style={{ marginLeft: '10px' }}>Book</button>**

**</li>**

**<li>**

**✈️ Flight C: Chennai → Hyderabad**

**<button style={{ marginLeft: '10px' }}>Book</button>**

**</li>**

**</ul>**

**</div>**

**);**

**};**

**export default UserPage;**

**OUTPUT:**

**A screenshot of a flight ticket

AI-generated content may be incorrect.**

**A screenshot of a computer

AI-generated content may be incorrect.**

1. **React HandsOn-13**

**App.js**

**import React, { useState } from 'react';**

**import './App.css';**

**import BookDetails from './BookDetails';**

**import BlogDetails from './BlogDetails';**

**import CourseDetails from './CourseDetails';**

**function App() {**

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

**let componentToRender;**

**if (activeTab === 'book') {**

**componentToRender = <BookDetails />;**

**} else if (activeTab === 'blog') {**

**componentToRender = <BlogDetails />;**

**} else if (activeTab === 'course') {**

**componentToRender = <CourseDetails />;**

**}**

**return (**

**<div className="App">**

**<h1>📚 Blogger App</h1>**

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

**<button onClick={() => setActiveTab('book')}>Book Details</button>**

**<button onClick={() => setActiveTab('blog')} style={{ marginLeft: '10px' }}>Blog Details</button>**

**<button onClick={() => setActiveTab('course')} style={{ marginLeft: '10px' }}>Course Details</button>**

**</div>**

**{componentToRender}**

**</div>**

**);**

**}**

**export default App;**

**BookDetails.js**

**import React from 'react';**

**const BookDetails = () => {**

**return (**

**<div>**

**<h2>📘 Book Details</h2>**

**<ul>**

**<li>Title: Learn React</li>**

**<li>Author: John Doe</li>**

**<li>Price: ₹499</li>**

**</ul>**

**</div>**

**);**

**};**

**export default BookDetails;**

**BlogDetails.js**

**import React from 'react';**

**const BlogDetails = () => {**

**return (**

**<div>**

**<h2>📝 Blog Details</h2>**

**<ul>**

**<li>Title: React vs Angular</li>**

**<li>Author: Jane Smith</li>**

**<li>Date: 03-Aug-2025</li>**

**</ul>**

**</div>**

**);**

**};**

**export default BlogDetails;**

**CourseDetails.js**

**import React from 'react';**

**const CourseDetails = () => {**

**return (**

**<div>**

**<h2>🎓 Course Details</h2>**

**<ul>**

**<li>Course: React for Beginners</li>**

**<li>Instructor: Alex Johnson</li>**

**<li>Duration: 4 weeks</li>**

**</ul>**

**</div>**

**);**

**};**

**export default CourseDetails;**

**OUTPUT:**

**A screenshot of a computer

AI-generated content may be incorrect.**

**A screenshot of a computer

AI-generated content may be incorrect.**

**A screenshot of a computer

AI-generated content may be incorrect.**