**9.ReactJs HOL**

**1. Features of ES6**

* let and const for variables
* Arrow functions (=>)
* Classes and inheritance
* Template strings: `Hello ${name}`
* Destructuring
* Spread (...) and rest (...)
* Promises
* New data types: Set, Map

**2. JavaScript let**

* Used to declare a variable
* Block-scoped (works only inside { })

**Example:**

let x = 10;

**3. var vs let**

| **var** | **let** |
| --- | --- |
| Function scope | Block scope |
| Can re-declare | Cannot re-declare |
| Hoisted | Hoisted but not initialized |

**4. JavaScript const**

* Declares constant (cannot be changed)

**Example:**

const PI = 3.14;

**5. ES6 Class Basics**

* A blueprint to create objects

**Example:**

class Person {

constructor(name) {

this.name = name;

}

}

**6. ES6 Class Inheritance**

* One class extends another

**Example:**

class Animal {}

class Dog extends Animal {}

**7. Arrow Functions**

* Short way to write functions

**Example:**

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

**8. Set() and Map()**

* Set = unique values

**Example:**

let s = new Set();

s.add(1); s.add(1);

* **Map** = key-value pairs

**Example:**

let m = new Map();

m.set("name", "John");

**Create a React Application named “cricketapp” with the following components:**

**ListofPlayers.js**

import React from 'react';

const players = [

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

{ name: "Kohli", score: 45 },

{ name: "Gill", score: 90 },

{ name: "Iyer", score: 60 },

{ name: "Pant", score: 75 },

{ name: "Jadeja", score: 55 },

{ name: "Hardik", score: 85 },

{ name: "Ashwin", score: 70 },

{ name: "Shami", score: 65 },

{ name: "Bumrah", score: 95 },

{ name: "Siraj", score: 50 },

];

const ListofPlayers = () => {

const allPlayers = players.map((p, index) => (

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

));

const lowScorePlayers = players.filter(p => p.score < 70);

return (

<div>

<h2>All Players</h2>

<ul>{allPlayers}</ul>

<h2>Players with Score Below 70</h2>

<ul>

{lowScorePlayers.map((p, index) => (

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

))}

</ul>

</div>

);

};

export default ListofPlayers**;**

**IndianPlayers.js**

import React from 'react';

const IndianPlayers = () => {

const oddTeam = ["Rohit", "Gill", "Pant", "Jadeja", "Shami"];

const evenTeam = ["Kohli", "Iyer", "Hardik", "Ashwin", "Siraj"];

// Destructuring teams

const [p1, p2, p3, p4, p5] = oddTeam;

const [q1, q2, q3, q4, q5] = evenTeam;

// Merging two arrays

const T20players = ["Rinku", "Tilak"];

const RanjiTrophyPlayers = ["Shreyas", "Rahane"];

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

return (

<div>

<h2>Odd Team Players</h2>

<ul>

<li>{p1}</li>

<li>{p2}</li>

<li>{p3}</li>

<li>{p4}</li>

<li>{p5}</li>

</ul>

<h2>Even Team Players</h2>

<ul>

<li>{q1}</li>

<li>{q2}</li>

<li>{q3}</li>

<li>{q4}</li>

<li>{q5}</li>

</ul>

<h2>Merged T20 & Ranji Trophy Players</h2>

<ul>

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

</ul>

</div>

);

};

export default IndianPlayers;

**App.js**

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;

**Final Output:**



