WEEK:7

* Define JSX

**JSX (JavaScript XML)** is a syntax extension for JavaScript used in React to describe what the UI should look like.

it allows you to write HTML-like code in JavaScript.

JSX is **not valid JavaScript**, so it's transpiled (usually by Babel) into React.createElement() calls.

* Explain about ECMA Script

**ECMAScript (ES)** is the standard that defines the scripting language JavaScript.

Each version (like ES6, ES7) introduces new features.

**ES6 (ECMAScript 2015)** introduced modern JavaScript features like let, const, arrow functions, classes, template literals, destructuring, etc.

React uses many ES6+ features to simplify code.

* Explain React.createElement()

React.createElement() is the function that creates a virtual DOM node.

* Explain how to create React nodes with JSX

JSX allows you to directly create virtual DOM elements

const element = <h2>Welcome to React</h2>;

* Define how to render JSX to DOM

Use ReactDOM.render() to attach JSX to the actual DOM.

* Explain how to use JavaScript expressions in JSX

const name = "Harshita";

const element = <h2>Hello, {name}!</h2>;

* Explain how to use inline CSS in JSX

In JSX, inline styles are passed as an **object**, not a string. Property names use **camelCase**.

Create a React Application named “officespacerentalapp” which uses React JSX to create elements, attributes and renders DOM to display the page.

App.js:

import React from 'react';

import OfficeList from './components/OfficeList';

function App() {

  return (

    <div className="App">

      <OfficeList />

    </div>

  );

}

export default App;

OfficeList.js:

import React from 'react';

// Sample office space data

const offices = [

  {

    id: 1,

    name: "TechSpace Tower",

    rent: 75000,

    address: "Hyderabad, Telangana",

    image: "https://via.placeholder.com/300x200?text=TechSpace"

  },

  {

    id: 2,

    name: "Startup Hub",

    rent: 55000,

    address: "Bangalore, Karnataka",

    image: "https://via.placeholder.com/300x200?text=StartupHub"

  },

  {

    id: 3,

    name: "WorkNest",

    rent: 62000,

    address: "Chennai, Tamil Nadu",

    image: "https://via.placeholder.com/300x200?text=WorkNest"

  }

];

const OfficeList = () => {

  return (

    <div>

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

      {/\* Display each office \*/}

      {offices.map((office) => (

        <div key={office.id} style={{ border: "1px solid #ccc", margin: "10px", padding: "10px" }}>

          <img src={office.image} alt={office.name} width="300" height="200" />

          <h2>{office.name}</h2>

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

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

            <strong>Rent:</strong> ₹{office.rent}

          </p>

        </div>

      ))}

    </div>

  );

};

export default OfficeList;

Output:

