**WEEK-7\_ReactJs\_HOL**

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**1.Define JSX**

**JSX (JavaScript XML)** is a syntax extension for JavaScript used in React. It allows you to write HTML-like code inside JavaScript, making it easier to describe the UI structure. JSX gets compiled to React.createElement() calls by Babel.

**2.Explain about ECMA Script**

**ECMA Script** is the standard specification on which JavaScript is based. ES6 (ECMAScript 2015) introduced modern features like let, const, arrow functions, classes, and modules, which are widely used in React applications.

**3. Explain React.createElement()**

React.createElement() is a method used to create React elements without JSX. It takes three arguments: the type of element, its props, and children. JSX is just syntactic sugar for this method.

**4. Explain how to create React nodes with JSX**

React nodes are created in JSX using HTML-like tags inside JavaScript. These elements are translated into React elements by Babel.

**5. Define how to render JSX to DOM**

To render JSX to the DOM, we use the ReactDOM.createRoot() and .render() methods.

**Example:**

const root = ReactDOM.createRoot(document.getElementById('root'));

root.render(<App />);

This mounts the React component inside the HTML element with the id root.

**6.Explain how to use JavaScript expressions in JSX**

JavaScript expressions can be embedded in JSX using curly braces {}. You can insert variables, function calls, or any valid expression.

**Example:**

const name = "John";

<h1>Hello, {name}</h1>

**7. Explain how to use inline CSS in JSX**

Inline CSS in JSX is written using a JavaScript object where property names are camelCased.

**Example:** <h1 style={{ color: 'blue', fontSize: '20px' }}>Hello</h1>

**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 './App.css';

function App() {

const office = {

name: 'DBS',

rent: 50000,

address: 'Chennai',

image: 'https://media.istockphoto.com/id/1408466830/photo/office-lobby-area.jpg?s=612x612&w=0&k=20&c=QqRjzAFh3Ulkt\_GIivd4QGi66XtXMyZAZQgYwV-hqS4='

};

const rentStyle = {

color: office.rent < 60000 ? 'red' : 'green',

fontWeight: 'bold'

};

return (

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

<h1>Office Space , at Affordable Range</h1>

<img

src={office.image}

alt="Office Space"

style={{ width: '400px', height: 'auto', display: 'block', margin: '20px 0' }}

/>

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

<p style={rentStyle}>Rent: Rs. {office.rent}</p>

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

</div>

);

}

export default App;

**OUTPUT:**

