**WEEK 6**

**8.ReactJS-HOL**

**OBJECTIVES:**

**1.Explain React State**

**What is React State?**

React state is a built-in object used to store data or information about a component. It determines how that component behaves and what it renders.

**Key Concepts:**

1. **State is Local to a Component:**
   * Each React component can maintain its own state.
   * The state is private and fully controlled by the component.
2. **Changes to State Trigger a Re-render:**
   * When the state is updated using setState (in class components) or the updater function (in functional components via useState), the component re-renders to reflect the new state.
3. **State is Mutable:**
   * Unlike props, state can change over time, usually in response to user actions or system events.

**Using State in Functional Components (React Hooks):**

import React, { useState } from 'react';

function Counter() {

const [count, setCount] = useState(0); // declare state variable

return (

<div>

<p>You clicked {count} times</p>

<button onClick={() => setCount(count + 1)}>Click Me</button>

</div>

);

}

* useState(0) initializes the state to 0.
* count is the current state value.
* setCount is the function to update that value.

**State vs Props:**

| **Feature** | **State** | **Props** |
| --- | --- | --- |
| Modifiable | Yes | No (read-only) |
| Managed by | The component itself | Parent component |
| Purpose | Internal component data | Pass data between components |