**React**

**Day 46th**

**Forms**

In react we can handle forms in two ways the very first is controlled way and uncontrolled way. Now the term comes here what is controlled and uncontrolled component??

**Uncontrolled component**

In this way the React does not use state. Uncontrolled component do not depends on any state of any input elements or any event handler. This type of component does not care about real time input changes. By using ref you can handle uncontrolled component. This is not a react data flow this is DOM data flow. Uncontrolled components managed by own initial state or own internal state (DOM internal state) rather than react state.

Managed by component’s own internal state on user interaction.

**What is DOM state Data??**

**What is uncontrolled Component in React**

An uncontrolled component in react is a component that does not store its form data in its internal state. Instead, it lets the DOM handle the form data directly.

* **Controlled Component :** In this approach, form data is handled by React through the use of hooks such as the useState hook
* **Uncontrolled Components:** Form data is handled by the Document Object Model rather than by React. The DOM maintains the state of form data and updates it based on user input.

In the first approach you let the bike take control. You sit on the bike and let it decide the direction and speed. You might try to make it go in a certain direction by leaning your body, but ultimately the bike decides where to go.

This is similar to uncontrolled components in React. you place a form element in the component and the DOM takes control of it. The DOM decides the state of the input element and updates it based on a user’s input.

In the second approach you take control of the bike. You hold the handlebars and pedal and you decide where to go and how fast to ride. You can easily slow down or speed up as needed.

This is similar to controlled components where a react component takes control of the form data and maintain the state of form elements. The component decides when and how to update the state and it re renders itself based on the state changes.

**Controlled Components in React**

In react, a controlled component is a component where form elements derive their value from a React state.

When a component is controlled, the value of form elements is stored in a state and any changes made to the value are immediately reflected in the state.

To create a controlled component you need to use the value prop to set the value of form elements and the onChange event to handle changes made to value.

The value prop sets the initial value of a form element, while the onChange event is triggered whenever the value of a form element changes. Inside the onChange event, you need to update the state with the new value using a state update function.

**What is change event?**

The change event occurs when the value of an element has been changed (only works on input, textArea and select elements). The change() method triggers the change event, or attaches a function to run when a change event occurs. Note for select menus, the change event occurs when an option is selected.