Controlled Elements

Controlled elements, in the context of React, refer to form elements such as input fields, textarea, and select elements whose values are controlled by the state of a React component. In other words, the values of these form elements are stored in the component's state, and any changes to the form elements are reflected in the component's state, and vice versa.

Key characteristics of controlled elements:

State Dependency
The value of a controlled element is tied to a corresponding state variable in the React component. This means that the component is responsible for managing and updating the value of the form element.

Two-Way Binding
Changes in the form element, such as user input, are reflected in the component's state, and changes in the component's state are reflected in the form element. This creates a two-way binding between the form element and the component.

Explicit Handling
Event handlers (e.g., onChange for input fields) are used to capture user input and update the state. This allows you to control how and when the form element's value changes.

Controlled elements are a fundamental concept in React for handling forms because they provide precise control over form data and enable easy validation, submission, and synchronization of form values with the component's state.