**Assignment 5: Forms and Controlled Components**

**Create a form in React.**

**Implement controlled components to manage form state.**

let's create a simple form in React using controlled components. Controlled components are React components where the form data is handled by the state of the component. Here's an example**:**

| **import React, { Component } from 'react';**  **class SimpleForm extends Component {**  **constructor(props) {**  **super(props);**  **this.state = {**  **username: '',**  **email: '',**  **password: '',**  **};**  **}**  **handleInputChange = (event) => {**  **const { name, value } = event.target;**  **this.setState({ [name]: value });**  **};**  **handleSubmit = (event) => {**  **event.preventDefault();**  **// Do something with the form data, e.g., send it to a server**  **console.log('Form data submitted:', this.state);**  **};**  **render() {**  **const { username, email, password } = this.state;**  **return (**  **<div>**  **<h1>Simple Form</h1>**  **<form onSubmit={this.handleSubmit}>**  **<label>**  **Username:**  **<input**  **type="text"**  **name="username"**  **value={username}**  **onChange={this.handleInputChange}**  **/>**  **</label>**  **<br />**  **<label>**  **Email:**  **<input**  **type="email"**  **name="email"**  **value={email}**  **onChange={this.handleInputChange}**  **/>**  **</label>**  **<br />**  **<label>**  **Password:**  **<input**  **type="password"**  **name="password"**  **value={password}**  **onChange={this.handleInputChange}**  **/>**  **</label>**  **<br />**  **<button type="submit">Submit</button>**  **</form>**  **</div>**  **);**  **}**  **}**  **export default SimpleForm;** |
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In this example:

The state of the component (username, email, and password) is initialized in the constructor.

The handleInputChange method is called whenever the input fields change. It updates the corresponding state based on the input's name attribute.

The form has an onSubmit handler (handleSubmit) that prevents the default form submission behavior and logs the form data to the console. You can replace this with your own logic to handle the form data (e.g., sending it to a server).

This is a basic example, and you can expand and customize it based on your specific requirements.