**WEEK – 7(Additional HandsOn)**

**React**

**15. ReactJS-HOL**

**Objectives**

**Explain about React forms**

**React forms** are how users input data in a React app. They include elements like:

* <input>
* <textarea>
* <select>
* <form>

In React, form elements are usually **controlled** via component state, meaning the input value is linked to the useState() hook.

**Define controlled components**

A **controlled component** is a form element (like <input>) where:

* The **value is controlled by React** state (useState)
* Changes are handled via onChange event

**Example:**

import React, { useState } from 'react';

function NameForm() {

const [name, setName] = useState('');

return (

<form>

<input

type="text"

value={name}

onChange={(e) => setName(e.target.value)}

/>

<p>Hello, {name}!</p>

</form>

);

}

**Explain about various input controls**

**Text Input**

<input type="text" value={name} onChange={handleChange} />

**Textarea**

<textarea value={message} onChange={handleChange} />

**Select Dropdown**

<select value={city} onChange={handleChange}>

<option value="Chennai">Chennai</option>

<option value="Bangalore">Bangalore</option>

</select>

**Checkbox**

<input type="checkbox" checked={isChecked} onChange={handleCheckboxChange} />

**Radio Button**

<input type="radio" value="male" checked={gender === 'male'} onChange={handleChange} />

**Explain about handling forms**

**Step-by-step:**

1. Create state variables using useState
2. Bind state to input value
3. Handle changes using onChange
4. Use a handleSubmit function on the form

**Example:**

function ContactForm() {

const [email, setEmail] = useState('');

const handleChange = (e) => setEmail(e.target.value);

const handleSubmit = (e) => {

e.preventDefault();

alert(`Submitted email: ${email}`);

};

return (

<form onSubmit={handleSubmit}>

<input type="email" value={email} onChange={handleChange} />

<button type="submit">Submit</button>

</form>

);

}

**Explain about submitting forms**

 Use the onSubmit event on <form>

 Call e.preventDefault() to prevent page reload

 Submit form data (e.g., send to API or validate)

**Example:**

<form onSubmit={handleSubmit}>

<input type="text" value={name} onChange={handleNameChange} />

<button type="submit">Submit</button>

</form>

**CODE:**

**src/ComplaintRegister.js:**

import React, { useState } from 'react';

function ComplaintRegister() {

  const [name, setName] = useState('');

  const [complaint, setComplaint] = useState('');

  const handleSubmit = (e) => {

    e.preventDefault();

    if (!name.trim() || !complaint.trim()) {

      alert('Please fill in all the fields.');

      return;

    }

    const transactionId = Math.floor(1000 + Math.random() \* 9000); // 4-digit ID

    window.alert(

      `Thanks ${name}!\nYour Complaint was Submitted.\nTransaction ID is: ${transactionId}`

    );

    setName('');

    setComplaint('');

  };

  return (

    <div>

      <h1 style={{ color: 'red', textAlign: 'center' }}>

        Register your complaints here!!!

      </h1>

      <form onSubmit={handleSubmit} style={{ textAlign: 'center', marginTop: '40px' }}>

        <div style={{ marginBottom: '10px' }}>

          <label style={{ fontWeight: 'bold', fontSize: '18px' }}>Name:&nbsp;</label>

          <input

            type="text"

            value={name}

            onChange={(e) => setName(e.target.value)}

            style={{ fontSize: '16px' }}

          />

        </div>

        <div style={{ marginBottom: '10px' }}>

          <label style={{ fontWeight: 'bold', fontSize: '18px' }}>Complaint:&nbsp;</label>

          <input

            type="text"

            value={complaint}

            onChange={(e) => setComplaint(e.target.value)}

            style={{ fontSize: '16px', width: '220px' }}

          />

        </div>

        <div>

          <button type="submit" style={{ fontSize: '16px' }}>Submit</button>

        </div>

      </form>

    </div>

  );

}

export default ComplaintRegister;

**src/App.js:**

import React, { useState } from 'react';

function ComplaintRegister() {

  const [name, setName] = useState('');

  const [complaint, setComplaint] = useState('');

  const handleSubmit = (e) => {

    e.preventDefault();

    if (!name.trim() || !complaint.trim()) {

      alert('Please fill in all the fields.');

      return;

    }

    const transactionId = Math.floor(1000 + Math.random() \* 9000);

    window.alert(

      `Thanks ${name}!\nYour Complaint was Submitted.\nTransaction ID is: ${transactionId}`

    );

    setName('');

    setComplaint('');

  };

  return (

    <div

      style={{

        height: '100vh',              // Full viewport height

        display: 'flex',              // Flexbox to center content

        justifyContent: 'center',     // Horizontal center

        alignItems: 'center',         // Vertical center

        flexDirection: 'column',      // Stack children vertically

        textAlign: 'center',          // Center text inside children

        padding: '20px',

        boxSizing: 'border-box',

      }}

    >

      <h1 style={{ color: 'red', marginBottom: '30px' }}>

        Register your complaints here!!!

      </h1>

      <form onSubmit={handleSubmit} style={{ width: '300px' }}>

        <div style={{ marginBottom: '15px', textAlign: 'left' }}>

          <label style={{ fontWeight: 'bold', fontSize: '18px' }} htmlFor="name">Name:</label><br />

          <input

            id="name"

            type="text"

            value={name}

            onChange={(e) => setName(e.target.value)}

            style={{ fontSize: '16px', width: '100%', padding: '6px' }}

          />

        </div>

        <div style={{ marginBottom: '15px', textAlign: 'left' }}>

          <label style={{ fontWeight: 'bold', fontSize: '18px' }} htmlFor="complaint">Complaint:</label><br />

          <input

            id="complaint"

            type="text"

            value={complaint}

            onChange={(e) => setComplaint(e.target.value)}

            style={{ fontSize: '16px', width: '100%', padding: '6px' }}

          />

        </div>

        <button type="submit" style={{ fontSize: '16px', padding: '8px 20px' }}>

          Submit

        </button>

      </form>

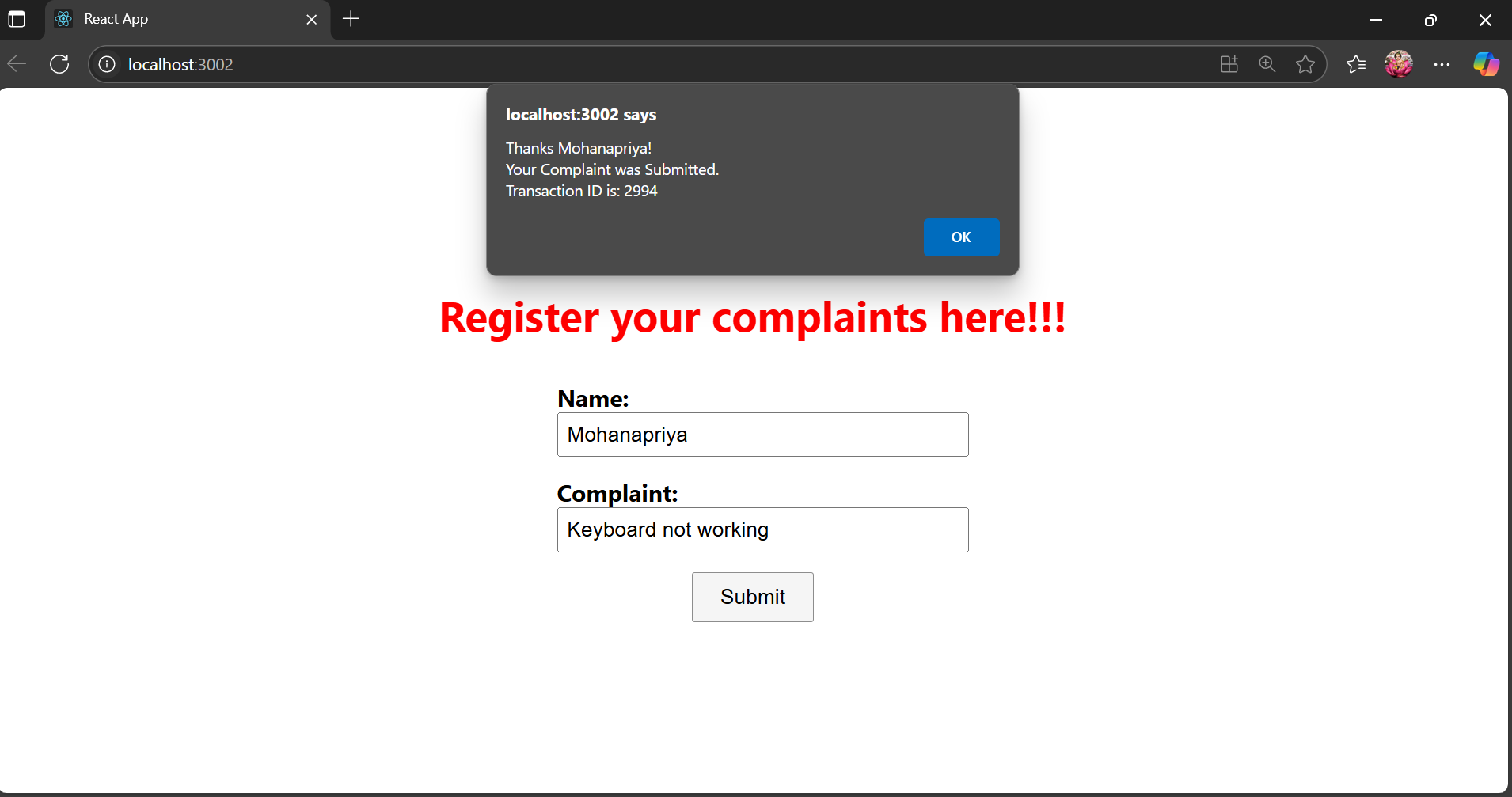
    </div>

  );

}

export default ComplaintRegister;

**OUTPUT:**

****