**11. ReactJS – HOL**

**1. Explain React events**

* Synthetic events in React mirror native DOM events
* Used with onClick, onChange, etc.

**2. Explain event handlers**

<button onClick={handleClick}>Click Me</button>

* Functions that are triggered on events

**3. Define Synthetic event**

* Cross-browser wrapper around native event
* Provides consistent interface

**4. React event naming convention**

* CamelCase (e.g., onClick, onChange)
* Event handler names are usually handleX or onX

**11. Create a React Application “eventexamplesapp” to handle various events of the form elements in HTML.**

1. **Create “Increment” button to increase the value of the counter and “Decrement” button to decrease the value of the counter. The “Increase” button should invoke multiple methods.** 
   1. **To increment the value**
   2. **Say Hello followed by a static message.**
2. **Create a button “Say Welcome” which invokes the function which takes “welcome” as an argument.**
3. **Create a button which invokes synthetic event “OnPress” which display “I was clicked”.**
4. **Create a “CurrencyConvertor” component which will convert the Indian Rupees to Euro when the Convert button is clicked.**
5. **Handle the Click event of the button to invoke the handleSubmit event and handle the conversion of the euro to rupees.**

**Step 1:** Open Terminal and create a new react project

***npx create-react-app eventexamplesapp***

***cd eventexamplesapp***

**Step 2:** Modify App.js

**App.js**

import React, { Component } from 'react';

import CurrencyConvertor from './CurrencyConvertor';

class App extends Component {

  constructor(props) {

    super(props);

    this.state = {

      count: 0,

      message: ''

    };

  }

  increment = () => {

    this.setState({ count: this.state.count + 1 });

    this.sayHello();

  }

  sayHello = () => {

    this.setState({ message: "Hello! You clicked Increment!" });

  }

  decrement = () => {

    this.setState({ count: this.state.count - 1 });

  }

  sayWelcome = (msg) => {

    this.setState({ message: msg });

  }

  handlePress = (event) => {

    this.setState({ message: "I was clicked" });

  }

  render() {

    return (

      <div style={{ padding: "20px" }}>

        <h1>React Event Examples</h1>

        <h3>Counter: {this.state.count}</h3>

        <button onClick={this.increment}>Increment</button>

        <button onClick={this.decrement}>Decrement</button>

        <br /><br />

        <button onClick={() => this.sayWelcome("Welcome to React Events!")}>

          Say Welcome

        </button>

        <br /><br />

        <button onClick={this.handlePress}>

          OnPress (Synthetic Event)

        </button>

        <br /><br />

        <h4>{this.state.message}</h4>

        <CurrencyConvertor />

      </div>

    );

  }

}

export default App;

**CurrencyConvertor.js**

import React, { Component } from 'react';

class CurrencyConvertor extends Component {

  constructor(props) {

    super(props);

    this.state = {

      rupees: '',

      euro: ''

    };

  }

  handleChange = (event) => {

    this.setState({ rupees: event.target.value });

  }

  handleSubmit = () => {

    const rate = 0.011;

    const euro = this.state.rupees \* rate;

    this.setState({ euro: euro.toFixed(2) });

  }

  render() {

    return (

      <div style={{ marginTop: "40px" }}>

        <h2>Currency Convertor (INR to Euro)</h2>

        <input

          type="number"

          placeholder="Enter INR"

          value={this.state.rupees}

          onChange={this.handleChange}

        />

        <button onClick={this.handleSubmit}>Convert</button>

        {this.state.euro && (

          <p>{this.state.rupees} INR = €{this.state.euro}</p>

        )}

      </div>

    );

  }

}

export default CurrencyConvertor;

**Step 3:** In terminal, type ***npm start*** and this will run your code.

**OUTPUT:**









