**Objectives**

* Explain React events
* Explain about event handlers
* Define Synthetic event
* Identify React event naming convention

In this hands-on lab, you will learn how to:

* Implement Event handling concept in React applications
* Use this keyword
* Use synthetic event

**Prerequisites**

The following is required to complete this hands-on lab:

* Node.js
* NPM
* Visual Studio Code

**Notes**

Estimated time to complete this lab: **90 minutes.**

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.



1. Create a button “Say Welcome” which invokes the function which takes “welcome” as an argument.



1. Create a button which invokes synthetic event “OnPress” which display “I was clicked”



Create a “CurrencyConvertor” component which will convert the Indian Rupees to Euro when the Convert button is clicked.

Handle the Click event of the button to invoke the handleSubmit event and handle the conversion of the euro to rupees.



Currencyconverter.js:

// src/components/CurrencyConvertor.js

import React, { useState } from 'react';

const CurrencyConvertor = () => {

  const [rupees, setRupees] = useState('');

  const [euros, setEuros] = useState(null);

  const handleSubmit = (e) => {

    e.preventDefault(); // synthetic event

    const converted = (parseFloat(rupees) / 90).toFixed(2); // assume 1 Euro = ₹90

    setEuros(converted);

  };

  return (

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

      <h2>Currency Converter (₹ to €)</h2>

      <form onSubmit={handleSubmit}>

        <input

          type="number"

          placeholder="Enter amount in ₹"

          value={rupees}

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

        />

        &nbsp;

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

      </form>

      {euros && (

        <h3>€ {euros}</h3>

      )}

    </div>

  );

};

export default CurrencyConvertor;

App.js:

import React, { Component } from 'react';

import CurrencyConvertor from './components/CurrencyConvertor';

class App extends Component {

  constructor(props) {

    super(props);

    this.state = {

      count: 0,

    };

    this.increment = this.increment.bind(this);

    this.sayHello = this.sayHello.bind(this);

    this.handleIncrement = this.handleIncrement.bind(this);

    this.decrement = this.decrement.bind(this);

  }

  increment() {

    this.setState(prevState => ({ count: prevState.count + 1 }));

  }

  sayHello() {

    console.log('Hello from React!');

  }

  handleIncrement() {

    this.increment();

    this.sayHello();

    alert('Value incremented & Hello printed to console!');

  }

  decrement() {

    this.setState(prevState => ({ count: prevState.count - 1 }));

  }

  sayWelcome(message) {

    alert(message);

  }

  handleSyntheticEvent(e) {

    e.preventDefault();

    alert('I was clicked!');

  }

  render() {

    return (

      <div style={{ textAlign: 'center', padding: '30px' }}>

        <h1>React Event Handling Example</h1>

        <h2>Counter: {this.state.count}</h2>

        <button onClick={this.handleIncrement}>Increase</button>&nbsp;

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

        <br /><br />

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

          Say Welcome

        </button>

        <br /><br />

        <button onClick={(e) => this.handleSyntheticEvent(e)}>

          OnPress (Synthetic Event)

        </button>

        <br /><br />

        <CurrencyConvertor />

      </div>

    );

  }

}

export default App;









