## **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.

**Sample Input:**

**Code :**

**App.js:**

import React from 'react';

import CurrencyConvertor from './CurrencyConvertor';

class App extends React.Component {

  constructor(props) {

    super(props);

    this.state = {

      counter: 0,

    };

    // Binding methods

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

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

    this.sayWelcome = this.sayWelcome.bind(this);

    this.handleClick = this.handleClick.bind(this);

  }

  increment() {

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

  }

  sayHello() {

    console.log("Hello! This is a static message.");

  }

  increaseAll() {

    this.increment();

    this.sayHello();

  }

  decrement = () => {

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

  };

  sayWelcome(msg) {

    alert(msg);

  }

  handleClick(e) {

    console.log("I was clicked!");

    console.log("Synthetic Event Type:", e.type);

  }

  render() {

    return (

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

        <h2>React Events Example</h2>

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

        <button onClick={() => this.increaseAll()}>Increment</button>

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

        <br /><br />

        <button onClick={() => this.sayWelcome("Welcome!")}>Say Welcome</button>

        <br /><br />

        <button onClick={this.handleClick}>OnPress</button>

        <br /><br />

        <CurrencyConvertor />

      </div>

    );

  }

}

exportdefault App;

**CurrencyConvertor.js:**

import React, { useState } from 'react';

function CurrencyConvertor() {

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

  const [euro, setEuro] = useState(null);

  const handleSubmit = (e) => {

    e.preventDefault();

    const rupeeValue = parseFloat(rupees);

    if (!isNaN(rupeeValue)) {

      const euroValue = (rupeeValue / 90).toFixed(2); // Example: 1 Euro = ₹90

      setEuro(euroValue);

    } else {

      alert('Please enter a valid number');

    }

  };

  return (

    <div>

      <h3>Currency Converter (INR to Euro)</h3>

      <form onSubmit={handleSubmit}>

        <input

          type="text"

          placeholder="Enter amount in ₹"

          value={rupees}

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

        />

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

      </form>

      {euro !== null && <p>Equivalent in Euro: €{euro}</p>}

    </div>

  );

}

export default CurrencyConvertor;

**Sample Output :**

