**Objectives**

**Explain React events**

In React, events are actions or occurrences that happen in the browser, such as a mouse click, key press, form submission, or input change. React events work similarly to DOM events but are implemented using Reat’s own event system for better cross-browser compatibility and performance.

**Explain about event handlers**

Event handlers are functions that responds to events. In React, we attach these functions to elements as props. When the event occurs, the function is executed. For example, a button click event can be handled by passing a function to the onClick prop.

**Define Synthetic event**

A synthetic Event in React is a cross-browser wrapper around the browser’s native event object. It standardizes the event properties and behavior so that events work the same way across all browsers. Synthetic events also improve performance by using event delegation and pooling.

**Identify React event naming convention**

In React, event names follow camelCase instead of lowercase. For example:

1. HTML:<button onClick=”doSomething()”>
2. React:<button onClick={doSomething}>

**Codes:**

**CounterSelection.jsx:**

import React,{Component} from 'react';

class **CounterSection** extends **Component**{

    constructor(props){

        super(props);

        this.state={

            count:5,

        };

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

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

        this.handleIncrementClick=this.**handleIncrementClick**.**bind**(this);

        this.handleSynthetic=this.**handleSynthetic**.**bind**(this);

    }

**increment**(){

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

    }

**sayHello**(){

**alert**('Hello! Member1');

    }

**handleIncrementClick**(){

        this.**increment**();

        this.**sayHello**();

    }

**handleDecrement**=()=>{

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

    };

**handleWelcome**(message){

**alert**(message);

    }

**handleSynthetic**(e){

**alert**('I was clicked');

        console.**log**('Synthetic event object:',e);

    }

**render**(){

        return(

            <div>

                <h2>Counter and Event Hnadling</h2>

                <div *style*={{marginBottom:'0.5rem'}}>

                    <strong>{this.state.count}</strong>

                </div>

                <div *style*={{display:'flex',flexDirection:'column',gap:'4px',maxWidth:'200px'}}>

                    <button *onClick*={this.**handleIncrementClick**}>Increment</button>

                    <button *onClick*={this.**handleDecrement**}>Decrement</button>

                    <button *onClick*={()=>this.**handleWelcome**('welcome')}>Say welcome</button>

                    <button *onClick*={this.**handleSynthetic**}>Click on me</button>

                </div>

            </div>

        );

    }

}

export default **CounterSection**;

**CurrencyConvertor.jsx:**

import React,{ useState } from "react"

const INR\_TO\_EURO\_RATE=80;

function **CurrencyConvertor**(){

    const[amount,**setAmount**]=**useState**('');

    const [currency,**setCurrency**]=**useState**('Euro');

    const **handleSubmit**=(e)=>{

        e.**preventDefault**();

        const euros=**parseFloat**(amount);

        if(**isNaN**(euros)){

**alert**('please enter a valid number for amount');

            return;

        }

        const rupees=euros\*INR\_TO\_EURO\_RATE;

**alert**(`Converting to Rupees: Amount is ${rupees.**toFixed**(2)}`);

    };

    return(

        <div>

            <h2 *style*={{color:'green'}}>Currency Convertor</h2>

            <form *onSubmit*={**handleSubmit**}>

                <div *style*={{marginBottom:'0.5rem'}}>

                    <label *style*={{display:'inline-block','width':'80px'}}>Amount:</label>

                    <input

*type*="text"

*value*={amount}

*onChange*={(e)=>**setAmount**(e.target.value)}

*style*={{width:'150ox'}}

*placeholder*="INR"

                    />

                </div>

                <div *style*={{marginBottom:'0.5rem'}}>

                    <label *style*={{display:'inline-block','width':'80px'}}>Currency:</label>

                    <input

*type*="text"

*value*={currency}

*onChange*={(e)=>**setCurrency**(e.target.value)}

*style*={{width:'150ox'}}

                    />

                </div>

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

            </form>

        </div>

    );

}

export default **CurrencyConvertor**;

**App.js:**

import React from 'react';

import CounterSection from './CounterSection';

import CurrencyConvertor from './CurrencyConvertor';

function **App**() {

  return (

    <div *style*={{padding:'1rem',fontFamily:'Segoe UI, system-ui, sans-serif'}}>

      <h1 *style*={{color:'#006400'}}>Event Examples App</h1>

      <**CounterSection**/>

      <h1/>

      <**CurrencyConvertor**/>

    </div>

  );

}

export default **App**;

**Output:**







