# React Event Handling and Currency Converter

**Q1. Explain React events**

React events are used to handle user interactions in a React application, such as clicks, typing, form submissions, and more. React normalizes events so they have consistent properties across different browsers by wrapping them in a SyntheticEvent object. This ensures consistent and reliable behavior.

Example:  
<button onClick={handleClick}>Click me</button>

**Q2. Explain about event handlers**

Event handlers are functions that are triggered when a specific event occurs. In React, these handlers are usually named with the prefix `handle` (e.g., `handleClick`, `handleSubmit`) and are passed as props to elements.

Example:  
function handleClick() {  
 alert('Button clicked!');  
}  
<button onClick={handleClick}>Click</button>

**Q3. Define Synthetic event**

A SyntheticEvent is React’s cross-browser wrapper around the browser’s native event. It has the same interface as the native event and works the same across all browsers. React automatically wraps native events in SyntheticEvent for performance and compatibility.

Example:  
function handleChange(event) {  
 console.log(event.target.value);  
}  
<input type="text" onChange={handleChange} />

**Q4. Identify React event naming convention**

React uses camelCase naming for event props, unlike HTML which uses lowercase. For example, `onClick` instead of `onclick`. Handler function names typically begin with "handle".

Example:  
function handleClick() {  
 alert("Clicked");  
}  
<button onClick={handleClick}>Click</button>

**Currency Converter Application Code**

**File 1: App.js**

import React, { useState } from 'react';  
import CurrencyConvertor from './CurrencyConvertor';  
  
function App() {  
 const [count, setCount] = useState(5);  
  
 const increment = () => {  
 setCount(count + 1);  
 sayHello();  
 };  
  
 const decrement = () => {  
 setCount(count - 1);  
 };  
  
 const sayHello = () => {  
 alert('Hello Member1!');  
 };  
  
 const sayWelcome = (message) => {  
 alert(message);  
 };  
  
 const handleClick = () => {  
 alert('I was clicked');  
 };  
  
 return (  
 <div style={{ margin: '20px' }}>  
 <h3>{count}</h3>  
 <button onClick={increment}>Increment</button> <br /><br />  
 <button onClick={decrement}>Decrement</button> <br /><br />  
 <button onClick={() => sayWelcome('welcome')}>Say welcome</button> <br /><br />  
 <button onClick={handleClick}>Click on me</button> <br /><br />  
 <CurrencyConvertor />  
 </div>  
 );  
}  
  
export default App;

**File 2: CurrencyConvertor.js**

import React, { useState } from 'react';  
  
function CurrencyConvertor() {  
 const [amount, setAmount] = useState('');  
 const [currency, setCurrency] = useState('');  
  
 const handleSubmit = (e) => {  
 e.preventDefault();  
 const conversionRate = 80;  
 if (currency.toLowerCase() === 'euro') {  
 const converted = amount \* conversionRate;  
 alert(`Converting to Euro Amount is ${converted}`);  
 } else {  
 alert('Unsupported currency');  
 }  
 };  
  
 return (  
 <div>  
 <h2 style={{ color: 'green' }}><b>Currency Convertor!!!</b></h2>  
 <form onSubmit={handleSubmit}>  
 <label>Amount:</label><br />  
 <input type="text" value={amount} onChange={(e) => setAmount(e.target.value)} /><br /><br />  
 <label>Currency:</label><br />  
 <input type="text" value={currency} onChange={(e) => setCurrency(e.target.value)} /><br /><br />  
 <button type="submit">Submit</button>  
 </form>  
 </div>  
 );  
}  
  
export default CurrencyConvertor;

**File 3: index.js**

import React from 'react';  
import ReactDOM from 'react-dom/client';  
import App from './App';  
  
const root = ReactDOM.createRoot(document.getElementById('root'));  
root.render(<App />);

**Output:**







