

```
import { useState } from 'react';
```

```
const TemperatureConverter = () => {
```

```
  const [celsius, setCelsius] = useState(0);
```

```
  const [fahrenheit, setFahrenheit] = useState(0);
```

```
  const [isCelsius, setIsCelsius] = useState(true);
```

```
  const handleCelsiusChange = (e: React.ChangeEvent<HTMLInputElement>) => {
```

```
    const value = parseFloat(e.target.value);
```

```
    setCelsius(value);
```

```
    setFahrenheit((value * 9 / 5) + 32);
```

```
  };
```

```
  const handleFahrenheitChange = (e: React.ChangeEvent<HTMLInputElement>) => {
```

```
    const value = parseFloat(e.target.value);
```

```
    setFahrenheit(value);
```

```
    setCelsius((value - 32) * 5 / 9);
```

```
  };
```

```
const handleUnitChange = () => {
```

```
  setIsCelsius(!isCelsius);
```

```
};
```

```
return (
```

```
  <div className="max-w-md mx-auto p-4 mt-10 bg-white rounded-lg shadow-md">
```

```
    <h1 className="text-3xl font-bold text-gray-900 mb-4">Temperature Converter</h1>
```

```
    <div className="flex flex-col mb-4">
```

```
      <label className="text-gray-700 mb-2" htmlFor="temperature">Temperature:</label>
```

```
      <input
```

```
        type="number"
```

```
        id="temperature"
```

```
        value={isCelsius ? celsius : fahrenheit}
```

```
        onChange={isCelsius ? handleCelsiusChange : handleFahrenheitChange}
```

```
        className="p-2 pl-10 text-sm text-gray-700 border border-gray-300 rounded-lg focus:ring-blue-500 focus:border-blue-500"
```

```
      />
```

```
<span className="text-gray-700 ml-2">{isCelsius ? '°C' : '°F'}</span>
```

```
</div>
```

```
<div className="flex flex-col mb-4">
```

```
<label className="text-gray-700 mb-2" htmlFor="result">Result:</label>
```

```
<input
```

```
  type="number"
```

```
  id="result"
```

```
  value={isCelsius ? fahrenheit : celsius}
```

```
  readOnly
```

```
  className="p-2 pl-10 text-sm text-gray-700 border border-gray-300 rounded-lg focus:ring-blue-500 focus:border-blue-500"
```

```
<span className="text-gray-700 ml-2">{isCelsius ? '°F' : '°C'}</span>
```

```
</div>
```

```
<button
```

```
  className="bg-blue-500 hover:bg-blue-700 text-white font-bold py-2 px-4 rounded-lg"
```

```
  onClick={handleUnitChange}
```

```
>
```

```
  Switch Unit
```

```
</button>
```

```
</div>
```

```
);
```

```
};
```

```
export default TemperatureConverter;
```