

## TASK-13

13. Set State with `this.setState`:

- Add a button to mark a student as present or absent and update the state.

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**Steps to Convert Your Code to a Class Component:**

1. Convert the `AttendanceTracker` component to a class component.
  2. Use `this.state` to manage state, and **`this.setState()`** to update it.
  3. Add a button that toggles the student's attendance and updates the state accordingly.
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**AttendanceTracker.jsx:**

```
import React, { Component } from 'react';
import './AttendanceTracker.css'; // Import the CSS file for styling

class AttendanceTracker extends Component {
  constructor(props) {
    super(props);
    this.state = {
      students: [
        { id: 1, name: 'Het Dabhi', isPresent: false },
        { id: 2, name: 'Dhruv Dabhi', isPresent: false },
        { id: 3, name: 'Deep Dabhi', isPresent: false },
        { id: 4, name: 'Raj Dabhi', isPresent: false },
      ],
    };
  }

  // Toggle attendance of each student
  toggleAttendance = (id) => {
    this.setState((prevState) => {
      const updatedStudents = prevState.students.map((student) =>
        student.id === id
          ? { ...student, isPresent: !student.isPresent }
          : student
      );
      return { students: updatedStudents };
    });
  };
}
```

```
render() {  
  // Calculate present and absent students  
  const presentCount = this.state.students.filter(  
    (student) => student.isPresent  
  ).length;  
  const absentCount = this.state.students.length - presentCount;  
  
  return (  
    <div className="attendance-container">  
      { /* Display attendance summary */ }  
      <div className="attendance-summary">  
        <h2>Attendance Summary</h2>  
        <p><strong>Present:</strong> {presentCount}</p>  
        <p><strong>Absent:</strong> {absentCount}</p>  
      </div>  
  
      { /* List of students */ }  
      <div className="students-list">  
        <h3>Students</h3>  
        <ul>  
          {this.state.students.map((student) => (  
            <li key={student.id} className="student-item">  
              <span>{student.name}</span>  
              <button  
                onClick={() => this.toggleAttendance(student.id)}  
                className={student.isPresent ? 'present' : 'absent'}  
              >  
                {student.isPresent ? 'Present' : 'Absent'}  
              </button>  
            </li>  
          ))}  
        </ul>  
      </div>  
    </div>  
  );  
}  
}
```

export default AttendanceTracker;

**Output:**

