IMPACT TRAINING

TASK-11

Student Attendance Tracker:

      11. Create a Stateful Component:

    − *Build a `AttendanceTracker.jsx` component to track the attendance of students in a class.*

Step 1: Set Up Your React Project:

    1. Create the React app:

```
npx create-react-app attendance-tracker
cd attendance-tracker
```

```
npm install web-vitals
```

Step 2: Set Up the AttendanceTracker.jsx Component:

    − Create a new file **AttendanceTracker.jsx** inside the **src** folder.

```jsx
import React, { useState } from 'react';
import './AttendanceTracker.css';  // Import the CSS file for the component styles

const AttendanceTracker = () => {
 const [students, setStudents] = useState([
  { 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
 const toggleAttendance = (id) => {
  setStudents((prevStudents) =>
   prevStudents.map((student) =>
    student.id === id
     ? { ...student, isPresent: !student.isPresent }
     : student
   )
  );
 };
```

```
// Calculate present and absent students
const presentCount = students.filter((student) => student.isPresent).length;
const absentCount = students.length - presentCount;

return (
  <div className="attendance-container">
   <div className="attendance-summary">
    <h2>Attendance Summary</h2>
    <p><strong>Present:</strong> {presentCount}</p>
    <p><strong>Absent:</strong> {absentCount}</p>
   </div>

   <div className="students-list">
    <h3>Students</h3>
    <ul>
     {students.map((student) => (
       <li key={student.id} className="student-item">
        <span>{student.name}</span>
        <button
         onClick={() => toggleAttendance(student.id)}
         className={student.isPresent ? 'present' : 'absent'}
        >
         {student.isPresent ? 'Present' : 'Absent'}
        </button>
       </li>
     ))}
    </ul>
   </div>
  </div>
 );
};

export default AttendanceTracker;
```

Step 3: Styling (Optional): (AttendanceTracker.css)

```
/* src/AttendanceTracker.css */
.attendance-container {
   display: flex;
   flex-direction: column;
   align-items: center;
   width: 100%;
   max-width: 600px;
   padding: 20px;
```

```css
    margin-top: 30px;
    background-color: #fff;
    border-radius: 10px;
    box-shadow: 0 4px 8px rgba(0, 0, 0, 0.1);
}

.attendance-summary {
    width: 100%;
    margin-bottom: 20px;
    padding: 15px;
    background-color: #f0f8ff;
    border-radius: 8px;
    text-align: center;
}

.attendance-summary h2 {
    font-size: 1.5em;
    margin-bottom: 10px;
}

.attendance-summary p {
    font-size: 1.2em;
    margin: 5px 0;
}

.students-list {
    width: 100%;
}

.students-list h3 {
    font-size: 1.4em;
    margin-bottom: 15px;
}

ul {
    list-style-type: none;
    padding: 0;
}

.student-item {
    display: flex;
    justify-content: space-between;
    align-items: center;
    background-color: #f9f9f9;
    margin-bottom: 10px;
    padding: 10px;
    border-radius: 8px;
    box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);
```

```
}

button {
 padding: 6px 12px;
 font-size: 1em;
 cursor: pointer;
 border: none;
 border-radius: 5px;
 outline: none;
}

button.present {
 background-color: #4CAF50;
 color: white;
}

button.absent {
 background-color: #f44336;
 color: white;
}

button:hover {
 opacity: 0.8;
}
```

Step 4: App.js:

```
import React from 'react';
import './App.css';  // For global styles
import AttendanceTracker from './AttendanceTracker';  // Import the AttendanceTracker
component

function App() {
 return (
  <div className="App">
   <header className="App-header">
    <h1>Welcome to the Student Attendance Tracker</h1>
   </header>
   <div className="content-wrapper">
    {/* Render the AttendanceTracker component */}
    <AttendanceTracker />
   </div>
```

```
    {/* Footer with "Design by Het Dabhi" */}
    <footer className="App-footer">
     <p>@Design by Het Dabhi</p>
    </footer>
   </div>
 );
}

export default App;
```

Step 5: App.css:

```css
/* src/App.css */
.App {
  display: flex;
  flex-direction: column;
  align-items: center;
  background-color: #f7f7f7;
  font-family: Arial, sans-serif;
  height: 100vh;
}

.App-header {
  background-color: #4CAF50;
  color: white;
  width: 100%;
  padding: 20px;
  text-align: center;
  font-size: 2em;
}

.content-wrapper {
  display: flex;
  justify-content: center;
  width: 100%;
  padding: 20px;
  flex-grow: 1; /* Ensures the content takes all available space */
}

.App-footer {
  width: 100%;
  background-color: #333;
  color: white;
  text-align: center;
```
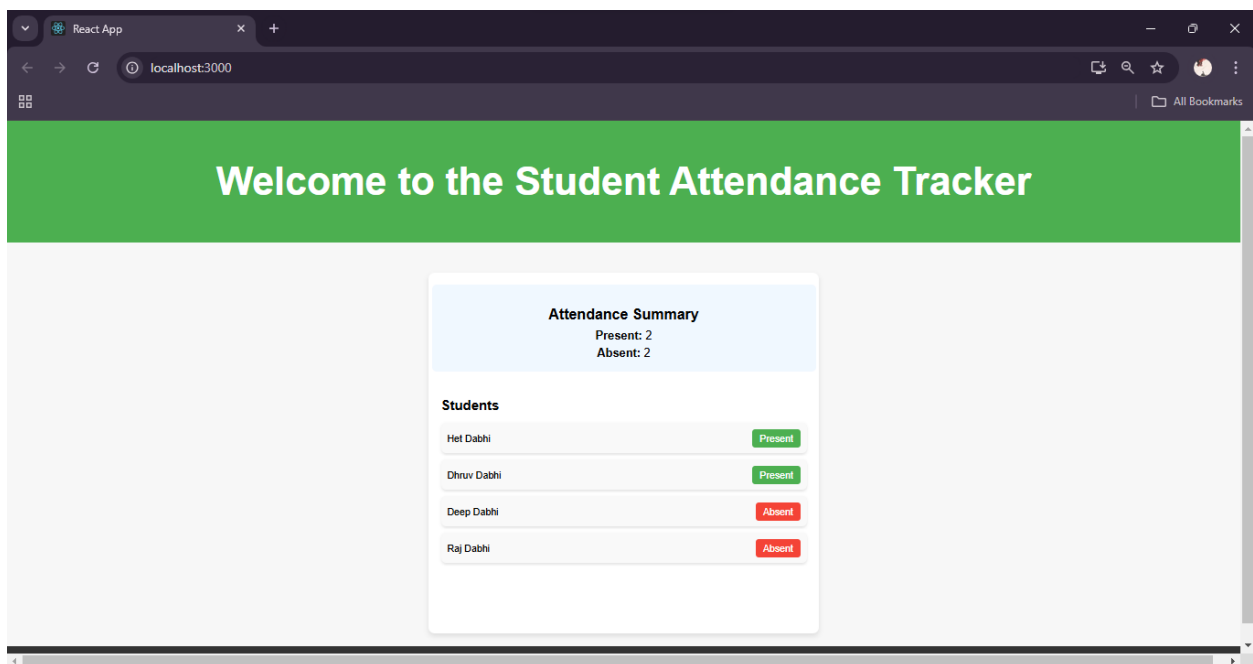
```
  padding: 10px 0;
  position: relative;
  bottom: 0;
  margin-top: auto; /* Pushes the footer to the bottom */
}

.App-footer p {
  margin: 0;
  font-size: 1em;
}
```

Output:

Project Structure:

```
src/
│
├── App.js
├── App.css
├── AttendanceTracker.jsx
├── AttendanceTracker.css
└── index.js
```