EXPERIMENT- 1

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Branch: BE CSE AIML

Section/Group: 23AIT_KRG-G1

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Subject Name: FULLSTACK-II

Subject Code: 23CSH-382

AIM:

To design and implement the foundational frontend architecture of the EcoTrack application using modern React practices, Vite tooling, and ES6+ JavaScript features.

OBJECTIVES:

• To set up a React project using Vite with proper project structure

• To understand component-based architecture in React

• To apply ES6 array methods (map, filter, reduce) for data-driven UI rendering

• To separate concerns using components, pages, and data modules

IMPLEMENTATION/CODE:

Logs.js

```
1 | export const logs = [
2 |   { id: 1, activity: "Car Travel", carbon: 4 },
3 |   { id: 2, activity: "Electricity Usage", carbon: 6 },
4 |   { id: 3, activity: "Cycling", carbon: 0 },
5 | ];
```

1)SUM :

Dashboard.jsx-

```
0 | import { logs } from "../data/logs";
1 |
2 | console.log("Dashboard loaded", logs);
3 |
4 | const Dashboard = () => {
5 |   const totalCarbon = logs.reduce(
6 |     (sum, log) => sum + log.carbon,
7 |     0
8 |   );
9 |
10|   return (
11|     <div>
12|       <h2>Dashboard</h2>
13|       <p>Total Carbon Footprint: {totalCarbon} Kg</p>
14|     </div>
15|   );
16| };
17|
18| export default Dashboard;
```

App.jsx

```
1 | import "./App.css";
2 | import Log from "./pages/Logs";
3 |
4 | function App() {
5 |   return <Log />;
6 | }
7 |
8 | export default App;
```

2)COUNT>=4

Logs.jsx

```
1 | import { logs } from "../data/logs";
2 |
3 | const Log = () => {
4 |   const filteredLogs = logs.filter((log) => log.carbon >= 4);
5 |
6 |   return (
7 |     <div>
8 |       <h2>Logs (Carbon ≥ 4)</h2>
9 |
10|       <ul>
11|         {filteredLogs.map((log) => (
```

```
12|            <li key={log.id}>
13|              ID: {log.id} — Activity: {log.activity}
14|            </li>
15|        ))}
16|      </ul>
17|    </div>
18|  );
19| };
20|
21| export default Log;
```
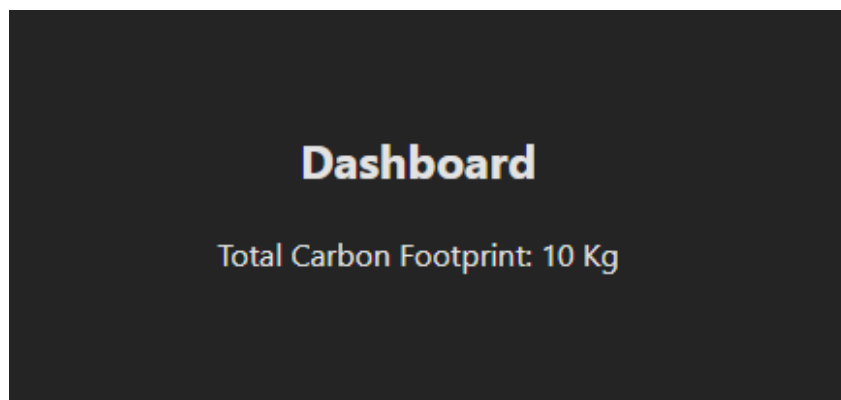
App.jsx

```
1 | import "./App.css";
2 | import Dashboard from "./pages/Dashboard";
3 |
4 | function App() {
5 |    return <Dashboard />;
6 | }
7 |
8 | export default App;
```

OUTPUT:

1)SUM

Dashboard

Total Carbon Footprint: 10 Kg

2)COUNT>=4

Logs (Carbon ≥ 4)

- ID: 1 — Activity: Car Travel
- ID: 2 — Activity: Electricity Usage

LEARNING OUTCOMES:

1. Set up a modern frontend application using Vite with React and organize the project structure effectively.

2. Apply component-based architecture in React to separate data, logic, and UI concerns.

3. Use ES6 array methods such as map, filter, and reduce for data-driven rendering and computations.

4. Implement functional React components to dynamically display and process application data.

5. Demonstrate clean and modular coding practices suitable for real-world frontend applications.