



# DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

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## EXPERIMENT- 1

**Student Name:** ASHLIN JAMES

**Semester:** 6

**UID:** 23BAI70722

**Date of Performance:** 14/01/26

**Branch:** BE CSE AIML

**Subject Name:** FULL STACK-II

**Section/Group:** 23AIT\_KRG-G1

**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

```
Experiment-1 > src > data > JS 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  ];
```



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## 1) SUM :

### Dashboard.jsx

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

### App.jsx

```
Experiment-1 > src > App.jsx > ...
1 import "./App.css";
2 import Log from "./pages/Logs";
3 import Dashboard from "./pages/Dashboard";
4 function App() {
5   return <Log/>;
6 }
7
8 export default App;
9
10
```

## 2) COUNT >=4

### Logs.jsx

```
Experiment-1 > src > pages > 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;
```



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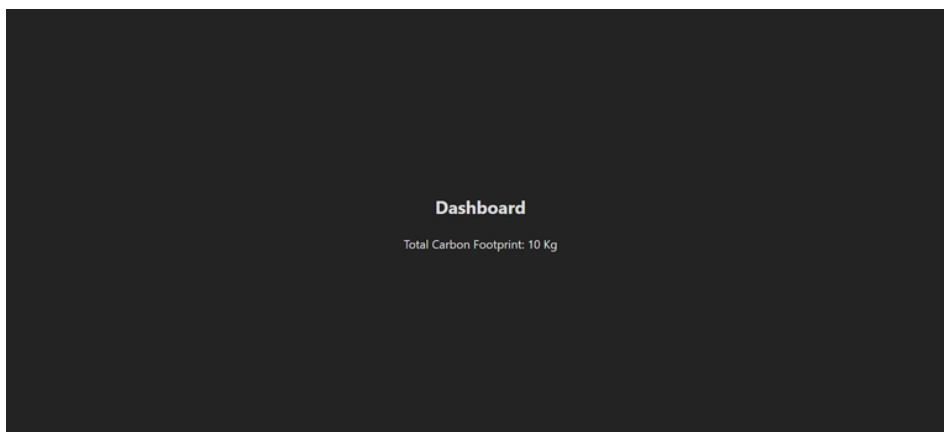
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## App.jsx

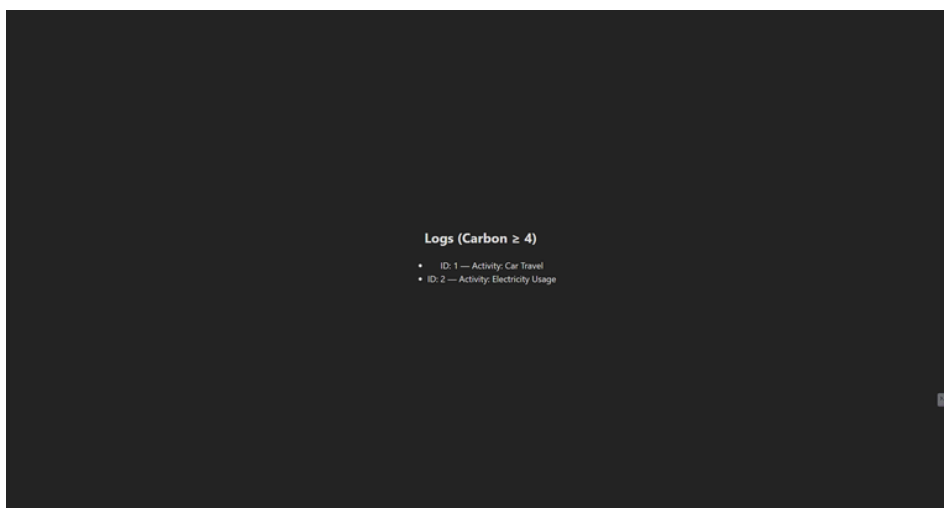
```
Experiment-1 > src > App.jsx > ...  
1 import './App.css';  
2 import Log from './pages/Logs';  
3 import Dashboard from './pages/Dashboard';  
4 function App() {  
5   | return <Dashboard/>;  
6 }  
7  
8 export default App;
```

## OUTPUT:

### 1) SUM



### 2) COUNT $\geq$ 4





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## **LEARNING OUTCOMES:**

1. Develop a modern frontend application using Vite with React, ensuring a well-organized and scalable project structure.
2. Implement a component-based architecture in React to clearly separate data handling, application logic, and user interface elements.
3. Utilize ES6 array methods such as map, filter, and reduce to efficiently render data and perform computations.
4. Build functional React components to dynamically display, manipulate, and process application data.
5. Follow clean, modular, and maintainable coding practices aligned with real-world frontend development standards.