DEPARTMENT OF
COMPUTER SCIENCE & ENGINEERING
Discover. Learn. Empower.

Experiment 1

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Subject Name: Full Stack II **Subject Code: 23CSH-382**

1. Aim:

To design and develop a web-based Environmental Impact Tracker (Eco Track) that calculates and categorizes carbon footprint based on different daily activities using ReactJS.

2. Objective:

The main objectives of this experiment are:

- To understand the use of React components for UI development
- To calculate total carbon footprint using JavaScript logic
- To classify activities into High Carbon and Low Carbon emissions
- To design a minimalist and user-friendly dashboard UI
- To improve understanding of arrays, filter, reduce, and conditional rendering

3. Implementation/Code:

App.jsx

```
import './App.css';

import Header from "./pages/Header";
import { HighImpact } from "./pages/logs";
import Dashboard1 from "./pages/dashboard1";

function App() {
```

```
return (
    <div className="App">
      <Header />
      <Dashboard1 />
      <HighImpact />
    </div>
  );
}

export default App;
```

---

logs.jsx

```
export const logs = [
  { id: 1, activity: "Car Travel", carbon: 4 },
  { id: 2, activity: "Electricity Usage", carbon: 6 },
  { id: 3, activity: "Cycling", carbon: 0 },
  { id: 4, activity: "Public Transport", carbon: 12 },
  { id: 5, activity: "Meat Consumption", carbon: 5 },
  { id: 6, activity: "Plant-based Meal", carbon: 2 },
  { id: 7, activity: "Air Travel", carbon: 1 }
];
export const HighImpact = () => {
  const highCarbonLogs = logs.filter(log => log.carbon <= 4);
  return (
    <div
      style={{
        padding: "20px",
        backgroundColor: "#121212",
        borderRadius: "8px"
      }}
    >
      <h2 style={{ color: "#FFD700" }}>Daily Logs</h2>
```

```
    <p style={{ color: "#00E5FF", fontSize: "15px" }}>
      These are the given carbon emissions
    </p>
    <ul style={{ listStyleType: "none", paddingLeft: 0 }}>
      {highCarbonLogs.map(log => (
        <li
          key={log.id}
          style={{
            marginBottom: "8px",
            padding: "10px",
            borderRadius: "6px",
            backgroundColor: "#1E1E1E",
            color:
              log.carbon === 0
                ? "#00FF7F"
                : log.carbon <= 2
                ? "#ADFF2F"
                : "#FF4500",
            fontWeight: "bold"
          }}
        >
          {log.activity} : {log.carbon} kgs
        </li>
      ))}
    </ul>
  </div>
 );
};
```

dashboard1.jsx

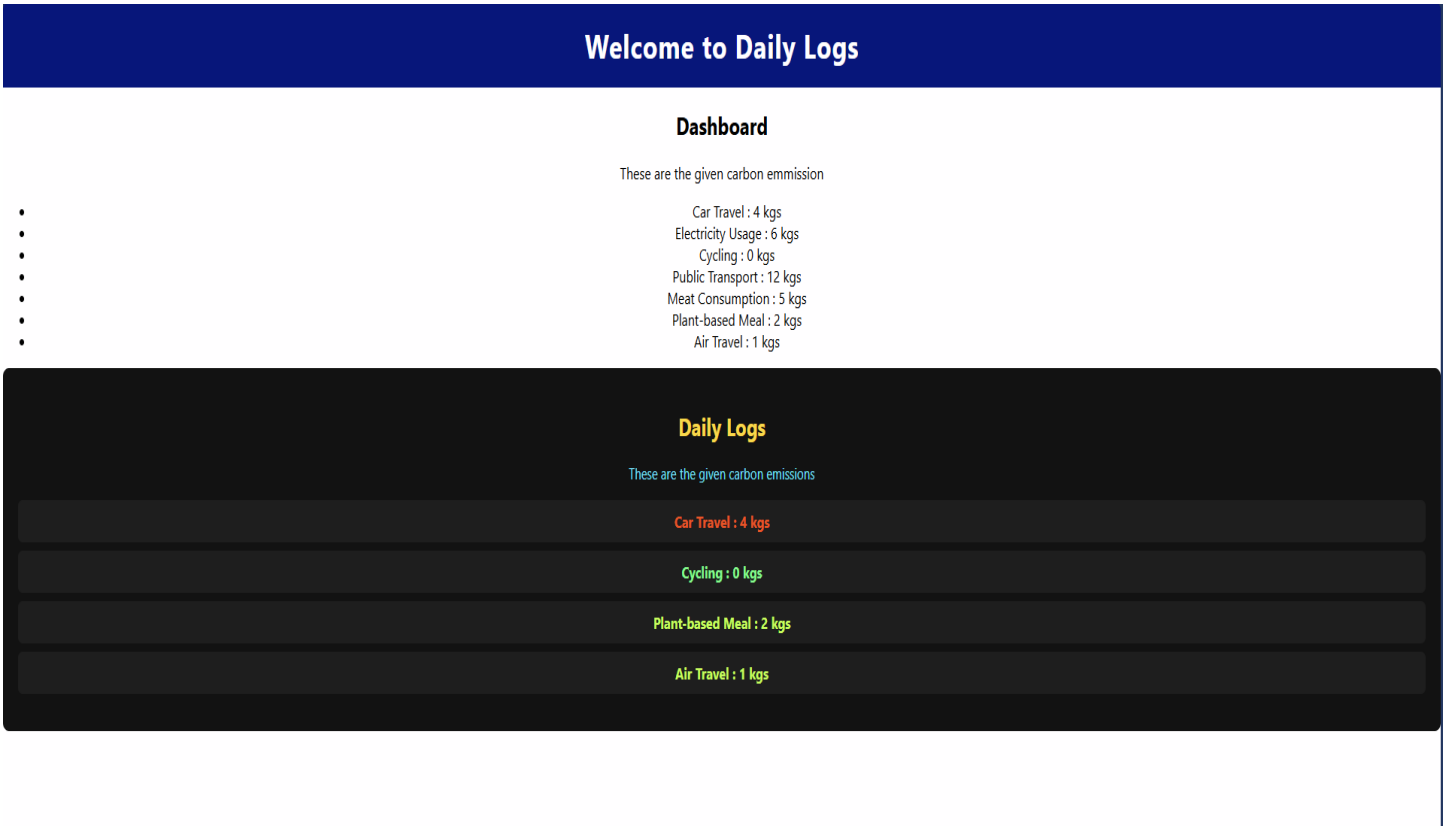
```
import {logs} from "./logs";

const dashboard = () => {
   const totalCarbon = logs.reduce((sum,log) =>sum+log.carbon,0)

  return(
     <div>
        <h2>Dashboard</h2>
        <p>These are the given carbon emmission</p>
        <ul>
           {
              logs.map((highCarbonLogs) => (
                 <li key = {highCarbonLogs.id}>
                    {highCarbonLogs.activity} : {highCarbonLogs.carbon} kgs
                 </li>
              ))
           }
        </ul>
     </div>
  )
}

export default dashboard;
```

Header.jsx

```
const Header = () => {
  return (
    <header>
      <h1
        style={{
          color: "#ffffff",
          backgroundColor: "#001780",
          padding: "20px",
          margin: 0,
          textAlign: "center",
          letterSpacing: "1px"
        }}
      >
        Welcome to Daily Logs
      </h1> </header>    );  };
```

export default Header;

4.Output:



5.Learning Outcome:

- How to build reusable UI using **React components**
- Practical use of **map(), filter(), and reduce()**
- How to manage and display data dynamically in React
- Basics of **dashboard UI design** with CSS
- Understanding of **environmental impact awareness through technology**