## **Problem Statement**

- You need to build a simple ESG questionnaire.
- It should be able to accept quantitative inputs across a range of financial years
- Feel free to use any AI tools you like for this task, but keep track of all tools used.
- You will be evaluated on:
  - The quality of your final output
  - Your understanding of your code, and ability to extend its functionality

# **Product Requirements**

## **Input metrics**

These metrics can be filled in by the user, and can be recorded for multiple financial years.

| Category      | Title  | Туре                   | Unit   |
|---------------|--|------------------------|--------|
| Environmental | Total electricity consumption                  | Number input           | kWh    |
| Environmental | Renewable electricity consumption              | Number input           | kWh    |
| Environmental | Total fuel consumption                         | Number input           | liters |
| Environmental | Carbon emissions                               | Number input           | T CO2e |
| Social        | Total number of employees                      | Number input           |        |
| Social        | Number of female employees                     | Number input           |        |
| Social        | Average training hours per employee (per year) | Number input           |        |
| Social        | Community investment spend                     | Number input           | INR    |
| Governance    | % of independent board members                 | Number input           | %      |
| Governance    | Does the company have a data privacy policy?   | Dropdown<br>(Yes / No) |        |
| Governance    | Total Revenue                                  | Number input           | INR    |

### **Auto-Calculated Metrics**

- Carbon Intensity = (Carbon emissions / Total revenue) T CO2e / INR
- Renewable Electricity Ratio = 100 \* (Renewable electricity consumption / Total electricity consumption) %
- Diversity Ratio = 100 \* (Female Employees / Total Employees) %
- Community Spend Ratio = 100 \* (Community investment spend / Total Revenue) %

Auto-calculated values need to update in real-time as the user fills in the form.

### **Summary Page**

Show a summary dashboard with:

- Simple chart (bar or pie using recharts or <u>chart.js</u>).
- Allow users to download a filled-in questionnaire and summary as a PDF (or Excel).

## **Technical Requirements**

### **User Registration & Login**

User signs up with:

- o name
- o email
- o password (hashed)

#### Login

- User logs in with email + password.
- Returns a JWT token (or session if using NextAuth).

#### Logout

• Invalidate session/JWT (frontend clears token or session).

#### **Access Control**

- Only logged-in users can:
  - o Fill ESG questionnaire
  - View saved responses
  - Download summary

#### **Database & API**

- Store all responses in PostgreSQL using Prisma ORM (or raw SQL if preferred).
- Each user's responses should persist, and the user can view their responses at any point in time.
- Provide an API (/api/responses) to:
  - o Save a response
  - o Fetch past responses
- Add authentication and authorization for data fetching and saving (I should only be seeing my data)

### **Summary**

- Frontend: Next.js (TypeScript, Tailwind, or Chakra UI)
- Backend: Node.js + Express or Next.js API routes (TypeScript)
- Database: PostgreSQL (schema defined via Prisma ORM)
- Extra: Charting library, PDF/Excel export library.
- Send back the codebase on GitHub.
- Host the application and send testable links, login emails and passwords.
- If in doubt about design language, stick to the colours and fonts used in orennow.com