Air Quality Analysis

Problem Definition:

Provide context about the location (city/region) and its current air quality challenges.

Problem Statement:

Define the specific problem you aim to address, such as high levels of air pollution, health concerns, or compliance with air quality regulations.

Objectives:

Clearly state the goals of the analysis, which might include reducing pollution levels, protecting public health, or ensuring compliance with air quality standards.

Data Sources:

Identify the sources of data to be used in the analysis, which can include:
- Real-time air quality monitoring data (e.g., PM2.5, NO2, CO levels).
- Meteorological data (e.g., temperature, wind speed, humidity).
- Geographic information (e.g., maps, land use data).
- Historical air quality data for trend analysis.
- Demographic data (e.g., population density, vulnerable groups).
- Data on industrial activities and traffic patterns.

Design thinking:

Empathize:

Understand the needs of stakeholders (e.g., citizens, government, scientists).
Conduct interviews, surveys, and observations to gather insights.
Identify pain points and challenges related to air quality analysis.

Ideate:

Brainstorm potential solutions, considering technology, data sources, and user interfaces.Encourage creativity and diverse perspectives.Prioritize ideas based on feasibility and impact.

Prototype:

Create low-fidelity prototypes of your solutions.
Use mock-ups, wireframes, or simple models to visualize concepts.
Test these prototypes with potential users to gather feedback