Primary_And_Secondary_Analysis

Primary Analysis (Based on Available data):

1. List the top 5 and bottom 5 areas with highest average AQI. (Consider areas which contains data from last 6 months: December 2024 to May 2025)
2. List out top 2 and bottom 2 prominent pollutants for each state of southern India. (Consider data post covid: 2022 onwards)
3. Does AQI improve on weekends vs weekdays in Indian metro cities (Delhi, Mumbai, Chennai, Kolkata, Bengaluru, Hyderabad, Ahmedabad, Pune)? (Consider data from last 1 year)
4. Which months consistently show the worst air quality across Indian states — (Consider top 10 states with high distinct areas)
5. For the city of Bengaluru, how many days fell under each air quality category (e.g., Good, Moderate, Poor, etc.) between March and May 2025?
6. List the top two most reported disease illnesses in each state over the past three years, along with the corresponding average Air Quality Index (AQI) for that period.
7. List the top 5 states with high EV adoption and analyse if their average AQI is significantly better compared to states with lower EV adoption

Secondary Analysis (This will require additional data and research)

1. Which age group is most affected by air pollution-related health outcomes — and how does this vary by city?
2. Who are the major competitors in the Indian air purifier market, and what are their key differentiators (e.g., price, filtration stages, smart features)?
3. What is the relationship between a city's population size and its average AQI — do larger cities always suffer from worse air quality? (Consider 2024 population and AQI data for this)
4. How aware are Indian citizens of what AQI (Air Quality Index) means — and do they understand its health implications?
5. Which pollution control policies introduced by the Indian government in the past 5 years have had the most measurable impact on improving air quality — and how have these impacts varied across regions or cities?

Extra Details:

1. **Answer Critical Questions**:
    - *Priority Cities*: Which Tier 1/2 cities show irreversible AQI degradation?
    - *Health Burden*: How do AQI spikes correlate with pediatric asthma admissions?
    - *Behavior Shifts*: Do pollution emergencies increase purifier searches/purchases?
    - *Feature Gap*: What do existing products lack (e.g., smart AQI syncing, compact designs)?
2. **Deliverables**:
    - **Market Prioritization Dashboard** with:
        - City risk scores (AQI severity × population density × income)
        - Health cost impact projections
        - Competitor feature gap matrix
    - **Product Requirements Document** specifying:
        - Must-have features (e.g., PM2.5/VOC sensors)
        - Tiered pricing models for target segments
3. **Innovate**:
    - Integrate external data (e.g., Google Trends, crop-burning satellite imagery)
    - Video must demonstrate dashboard functionality + city-specific entry simulations