

Project Proposal Group 9- Air Quality Index

Introduction

- World Quality Air Data 2024- EDA

When looking through various datasets, we found that we all had a shared concern for environmental issues. Air Quality impacts health and our environment. This project could help us raise awareness regarding the same. By analyzing the dataset, we hope to contribute to better decision making regarding the solutions for improving the air quality.

- <https://www.kaggle.com/code/thabresh/world-air-quality-index-eda>

Three research guiding questions

1. What are the geographical regions with the most poor air quality, based on the Global AQI
2. Is there any relationship between pollutants?
3. What is the distribution of all four pollutants?
4. How does air quality (AQI) correlate with latitude and longitude?

Inspiration

- for a **Global Air Quality Index EDA project** comes from a combination of growing concerns about air pollution, the increasing availability of global environmental datasets, and the need for data-driven solutions to address pressing health, environmental, and policy issues.

Visuals

- .A map with circles showing pollution levels at different locations (with color representing pollutant concentration).
- b. Bar graph: A bar chart could show the distribution of different pollutants (NO2, SO2,CO,O3) across different cities or countries.
- Donut/pie chart: Donut Chart showing percentage of different pollutants.
- Line Chart: A line chart showing one specific pollutant for a specific country/city.
- Scatter plot:Latitude Longitude for pollutants (MAP) or AQI Index
- Geomap: Latitude Longitude for pollutants (MAP) or AQI Index
- Linear Regression-Question 5 Comparing Lat/Lon vs pollutant

Roles and Responsibilities

- Question 1-Misha, Mambully
- Question 2- Prasad, Neelam
- Question 3- Sanhueza, Valentina

- Regression- Kuhl, Adriana

Slide Presentation

- Intro- Valentina
- Objective- Adriana
- Dataset- Misha
- Data Engineering- Neelam
- High Level Questions- Misha
- Question 1-Misha
- Question 2- Neelam
- Question 3-Valentina
- Regression- Adriana
- Bias and Limitations-Neelam
- Conclusion-Valentina

Color Palette Colors refer to the AQI Index

