Air Pollution Project

Description

The Air Pollution Data Analytics project aims to analyze air pollution data over several years, focusing on emissions of nitrogen oxides, sulfur dioxides, carbon dioxide (CO2), and volatile organic compounds (VOCs), measured in **tonnes per year**. The project will also incorporate data on air pollution-related death rates. The dataset covers all countries from the 1970s to the present. The analysis will provide insights into the trends, patterns, and impact of air pollution on a global scale.

Objectives

- Identify countries with significant air pollutant emissions and high death-rates related to air pollution.
- Explore the historical trends of nitrogen oxide, sulfur dioxide, CO2, and VOC emissions across all countries over time.
- Investigate the correlation between air pollutant emissions and air pollution-related death rates across all countries over time.
- Provide visualizations and data-driven insights evaluating global trends in air pollution and its possible effects.

Possible Research Questions

- How have the emissions of nitrogen oxides, sulfur dioxides, CO2, and VOCs changed globally over the past years?
- Which countries exhibit a steady increase or decrease in their air pollutant emissions over the past years?
- Which countries show the highest or lowest emissions of air pollutants in present times?
- Which countries exhibit a significant change in their air pollutant emissions amounts at some point in the past?
- Are there specific countries or regions experiencing significant increases or decreases in air pollution emissions?
- What is the relationship between air pollutant emissions and air pollution-related death rates?
- What are the historical trends on air pollution death rates across countries over time?
- What are the current trends on air pollution death rates across countries over time?
- Are there periods in time when air pollutant emissions were significantly lower across countries over time?

- What is the relationship between pollutant emission and air-pollution death rates across countries over time?
- Which of the pollutants has a relationship with air-pollution-related death rates over time?
- How strong are each pollutants' correlation to the air-pollution-related death rates over time?