Predicting NC Air Quality Index

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Discussion Outline

1. **Predicting Air Quality Index**
   a. How and why

2. **Data**
   a. Source of data
   b. Goal of analysis

3. **Technologies**
   a. Technologies, languages, tools utilized

4. **Analysis**
   a. Results

5. **Future Recommendations**

Predicting NC Air Quality Index (AQI)

The WHY

- Assist people with respiratory illnesses to determine if safe to engage in outside activities
- Information for people/families moving to NC to determine which region may best suit respiratory medical needs

The HOW

- Using various tools and Kaggle dataset predict AQI in regions across NC based on time of year
- App based tool for ease of use in Phase 2

The Data Questions

Does Air Quality vary by time of year?

What AQI is safe/unsafe for the respiratory system?

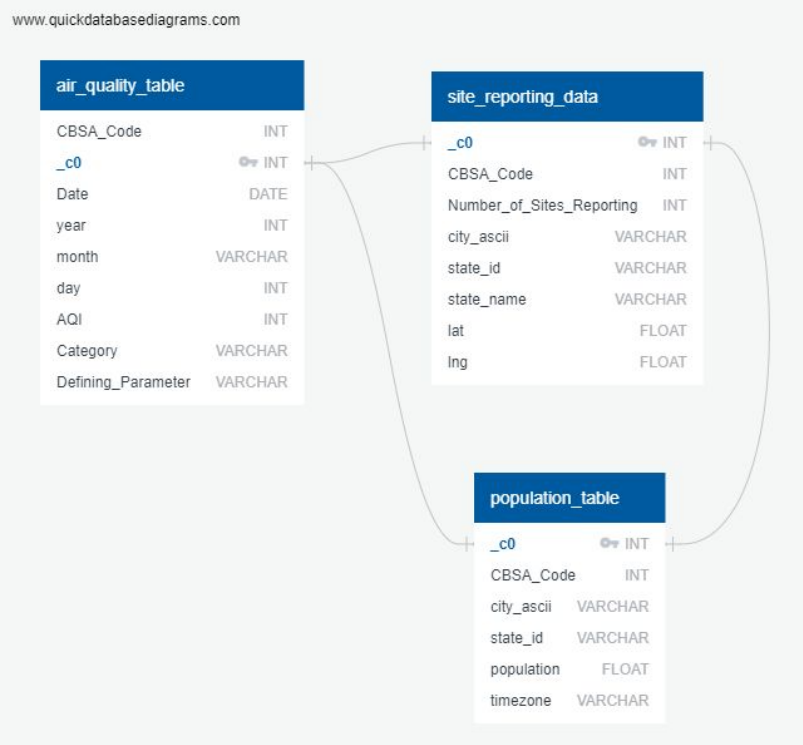
Does population density have an effect on AQI?

Does location have an effect on AQI?

What region of NC best suits someone with respiratory illness?

The Dataset

“US Air Quality 1980 - Present: Daily AQI Values from stations across the US” Source: Kaggle



Isolated data for NC from dataset to import to database as shown in database schema

Database Details

Machine Learning Details

Future Draft Slides for Final Submission

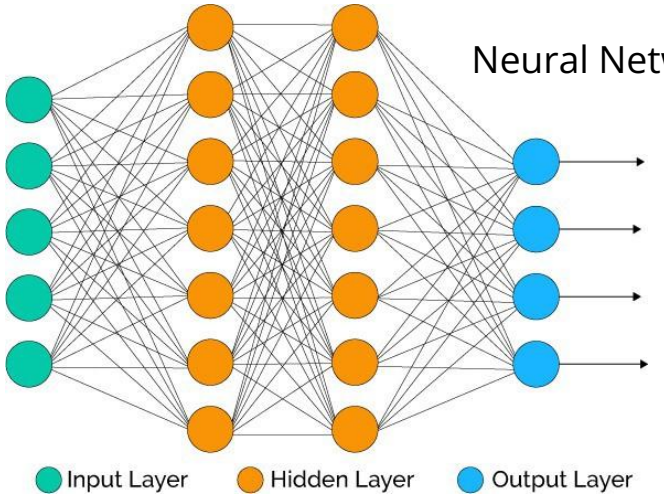
Technologies Utilized

Analyzing/Cleaning Data

Database

Technologies Utilized

Machine Learning Model



Dashboard

Other

Data Analysis Results

Does Air Quality vary by time of year?

What AQI is safe/unsafe for the respiratory system?

Does population density have an effect on AQI?

Does location have an effect on AQI?

What region of NC best suits someone with respiratory illness?

Data Visualization StoryBoard

INCLUDE - Interactive element to be used and tool to create dashboard