Data Report: [Week5JupyterNotebooks](https://github.com/skanamar017/Week5JupyterNotebooks/tree/main)

1. City Of Newark DE Tree Survey
2. Data Acquisition Lab
3. NOAA Locations
4. NOAA Daily Summaries
5. NOAA Monthly Summaries
6. Registered Voters File Wilmington DE

* **City of Newark, DE Tree Survey:** This project focuses on analyzing urban tree data. It involves spatial analysis or ecological insights for Newark, Delaware.

Note below the outcomes of the Data Analysis performed:

A graph of a number of different colored bars

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**Condition Counts (Excellent to Dead):**

Excellent: 163

Very Good: 381

Good: 1168

Fair: 1598

Poor: 402

Very Poor: 83

Critical: 74

Dead: 218

Total: 4087

A green circle with yellow triangle and black text

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Counts of each unique risk in the Data Frame:

RISK

Low: 3833

Moderate: 241

High: 13

The 'Low' risk category represents trees that pose minimal risk to people or property.

Most trees in this dataset fall into this category, indicating that the majority are

considered safe and do not require immediate intervention.

The 'Moderate' risk category includes trees that present some potential risk, but not

as severe as those in the 'High' category. These trees may require monitoring or

preventive maintenance to ensure safety.

The 'High' risk category represents trees that pose the greatest potential danger to

people or property. In this dataset, there are only 13 entries classified as 'High' risk,

indicating that very few trees are considered to have a significant risk level. These

trees may require immediate attention or remediation to reduce potential hazards.

**Conclusion:**

Even though there are 74 trees in 'Critical' condition, only 13 are classified as 'High' risk because the 'RISK' attribute is determined by multiple factors, not just the tree's condition. Risk assessment typically considers the likelihood of failure, the potential target (people or property that could be affected), and the consequences of failure. Therefore, a tree in critical condition may still be considered 'Low' or 'Moderate' risk if it is in an area where it poses little threat to people or property.

* **NOAA Locations:** This project deals with geographical data related to NOAA, focusing on location-based patterns or data aggregation by region.

A screenshot of a computer

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This script fetches location data from the NOAA API using the provided API token.

It retrieves the data in batches of 1000 records, handles HTTP 503 errors with retries,

and saves each batch as a separate JSON file in the 'data' directory.

The script continues fetching until no more data is available and prints a summary at the end.

* **Data Acquisition Lab:** This exercise focused on the techniques and processes of data extraction, covering various data sources and formats.

The data source was extracted using a token from the NOAA website and separated into 39 JSON files containing 1000 samples each for the first 38 ones, and the last one contains 859 samples, totaling 38859 data samples.

A screenshot of a computer screen

AI-generated content may be incorrect.

* **NOAA Daily Summaries:** This project utilizes daily summary data from the National Oceanic and Atmospheric Administration (NOAA), involving time-series analysis of meteorological or environmental data for the month of January 2018.

A graph with red and blue lines

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* **NOAA Monthly Summaries:** Like the daily summaries, this folder analyzes NOAA data at a monthly granularity, reinforcing time-series analytical skills.

A graph with lines and dots

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* **Registered Voters File Wilmington, DE:** This is an analysis of voter registration data for Wilmington, Delaware, which encompasses demographic analysis, geographic distribution, and participation patterns.

A pie chart with numbers and a number of votes

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A graph of age distribution

AI-generated content may be incorrect.

A black screen with numbers

AI-generated content may be incorrect.

A number of voters by party

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A table with a black background

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