

AIR POLLUTION ANALYSIS

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# Import necessary libraries

import pandas as pd

import matplotlib.pyplot as plt

import seaborn as sns


# Load your air quality dataset

# Replace 'your_dataset.csv' with your dataset file path

df = pd.read_csv('your_dataset.csv')


# Calculate average levels by grouping the data

average_so2 = df.groupby('City')['SO2'].mean()

average_no2 = df.groupby('City')['NO2'].mean()

average_rspm_pm10 = df.groupby('City')['RSPM/PM10'].mean()


# Create bar plots for SO2, NO2, and RSPM/PM10 levels

plt.figure(figsize=(12, 6))

plt.subplot(131) # Subplot for SO2

sns.barplot(x=average_so2.values, y=average_so2.index, palette="Blues")

plt.xlabel('Average SO2 Level')

plt.ylabel('City')

plt.title('Average SO2 Levels by City')


plt.subplot(132) # Subplot for NO2

sns.barplot(x=average_no2.values, y=average_no2.index, palette="Oranges")

plt.xlabel('Average NO2 Level')

plt.ylabel('City')

plt.title('Average NO2 Levels by City')
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```
plt.subplot(133) # Subplot for RSPM/PM10
sns.barplot(x=average_rspm_pm10.values, y=average_rspm_pm10.index, palette="Greens")
plt.xlabel('Average RSPM/PM10 Level')
plt.ylabel('City')
plt.title('Average RSPM/PM10 Levels by City')

plt.tight_layout()
plt.show()
```

- The 'your_dataset.csv' replaced with should be the actual dataset we have..