

# AIR QUALITY ANALYSIS IN TAMILNADU

PHASE PROJECT 4

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# INTRODUCTION

- ❑ The term air quality refers to the degree to which the air in a particular place is free from pollutants.
- ❑ Air pollutants are substances present in the atmosphere at concentrations above their normal background levels which can have a measurable effect on humans, animals and vegetation.



# AIM

- ❑ To create data visualizations using data visualization libraries for the Air quality analysis in Tamilnadu.( Ex : Matplotlib,Seaborn)

# DATASET

- ❑ <https://tn.data.gov.in/resource/location-wise-daily-ambient-air-quality-tamil-nadu-year-2014>

# CODE

Python

```
import pandas as pd

# Replace 'your_dataset.csv' with the actual path to the downloaded CSV file_path =
'your_dataset.csv'

# Read the dataset into a Pandas DataFrame
df = pd.read_csv(file_path)

# Explore the dataset

# For example, you can display the first few rows of the dataset:print(df.head())

# You can perform various operations on the DataFrame, like filtering, aggregating, and
visualizing the data.
```



```
# Example: Filtering data for a specific location (replace 'YourLocation' with the desired
location)location_data = df[df['Location'] == 'YourLocation']print(location_data)

# Example: Basic data analysisprint("Summary Statistics:")print(df.describe())

# Example: Data visualization (you may need to install additional libraries like Matplotlib or
Seaborn)import matplotlib.pyplot as plt

# Plotting a histogram of a specific parameter (replace 'ParameterName' with the desired
parameter)

parameter_name = 'ParameterName'df[parameter_name].plot

(kind='hist', bins=20)

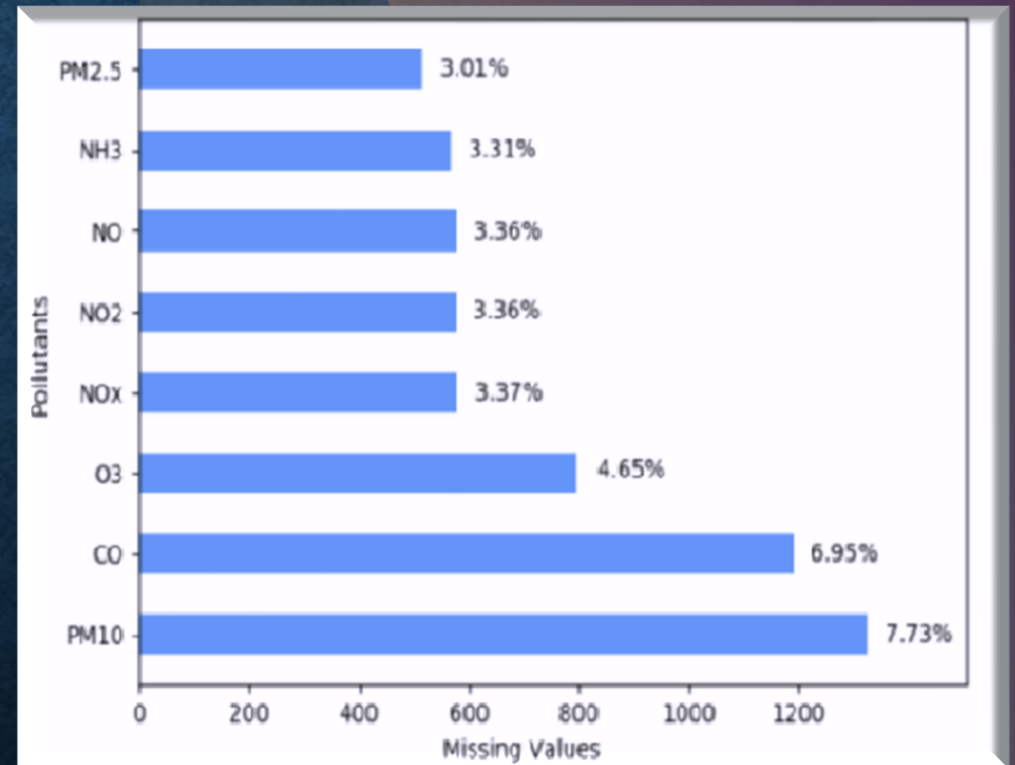
plt.title(f'Histogram of
{parameter_name}')plt.xlabel(parameter_name)plt.ylabel('Frequency')plt.show()
```

```
plt.title(f'Histogram of {parameter_name}')
```

```
plt.xlabel(parameter_name)
```

```
plt.ylabel('Frequency')
```

```
plt.show()
```





**THANK YOU**