

Dataframe - Case Study

Table of Contents

Problem statement

1. Project Imports

2. Dataframe Python Implementation

1. Project Imports

```
import pandas as pd
```

2. Dataframe Python Implementation

```
# Load the AirBase data into a data frame<br>
```

```
airbase_data = pd.read_csv('data/airbase_data.csv')
```

```
# Display the first few rows of the data frame<br>
```

```
print(airbase_data.head())
```

```
# Filter the data for a specific country<br>
```

```
country_data = airbase_data[airbase_data['Country'] == 'Germany']
```

```
# Display the filtered data<br>
```

```
print(country_data)
```

```
# Group the data by city and calculate the average air quality values<br>
```

```
city_avg_data = airbase_data.groupby('City').mean()
```

```
# Display the average values per city<br>
```

```
print(city_avg_data)
```

```
# Sort the data frame by air quality values in descending order<br>
```

```
sorted_data = airbase_data.sort_values('AirQuality', ascending=False)
```

```
# Display the sorted data<br>
```

```
print(sorted_data)
```