Exercise - Data Analysis

Exercises in Data Modeling (190.021)

[1]*dm@ai-lab.science* February 8, 2026

This is a cheat sheet for the exercise on data analysis.

Since the relevant information on what the notebook is about can be found in the notebook itself, no further explanations will be made here. This sheet's main use is for you to know what strings you can type in for what variables.

1 Information about the dataset

For more details about the used dataset, visit the following link: Urban Air Quality and Health Impact Dataset on Kaggle

2 What to generally fill in for 'None'

The cities which you can use for the string variables **city1** and **city2** are:

- Phoenix
- San Jose
- San Antonio
- Los Angeles
- San Diego
- New York City
- Chicago
- Philadelphia
- Dallas
- Houston

The columns which you can use for the string variables **col1** and **col2** are:

- datetimeEpoch
- tempmax
- tempmin
- temp
- feelslikemax
- feelslikemin
- feelslike
- dew
- humidity
- snow
- snowdepth
- windgust
- windspeed
- winddir
- pressure
- cloudcover
- visibility
- solarradiation
- solarenergy
- uvindex
- severerisk
- sunriseEpoch
- sunsetEpoch
- City
- Temp_Range
- Heat_Index
- Severity_Score
- Month
- Is_Weekend
- Health_Risk_Score

The remaining variables are to be filled in with the following data types.

- **threshold:** A positive integer or float value.
- **random_state:** An integer.
- **test_size:** A float between 0.0 and 1.0.

If you did not fill out the variables, the program will throw an Exception. The output will look similar to picture 1. Follow the instructions given, and the program will work.

```
city1 is still None. Please enter a valid city name.


---------------------------------------------------------------------------
Exception                                 Traceback (most recent call last)
Cell In[6], line 5
      3 if city1 is None:
      4     print("city1 is still None. Please enter a valid city name.")
----> 5     raise Exception("Execution stopped because city1 is not defined.")
      7 if city2 is None:
      8     print("city2 is still None. Please enter a valid city name.")

Exception: Execution stopped because city1 is not defined.
```

Figure 1: *Example of an Exception*