Challenge A2 Data Description

**Weather data Brabant**(*weather\_data.csv*)

Brief description: This dataset contains information about weather conditions from two measurement stations in Brabant: Gilze-Rijen and Eindhoven. The measurements are from the 1st of October 2019 up until the 1st of October of 2020. The measurements are done daily, and the exact date is mentioned in the column *date*. The dataset has figures about the average day temperature, minimum temperature and maximum temperature. Furthermore, it contains daily sunshine duration, the daily precipitation that fell and evaporation levels through crops. This last number is a reference number put together by KNMI.

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| **Column name** | **Description** | **Unit** |
| *station* | Column with the name of the station. Either Gilze-Rijen or Eindhoven | - |
| *date* | Contains date of the belonging measurements. It ranges from 2019-10-01 to 2020-10-01 | yyyy-mm-dd |
| *average\_day\_temp* | Numerical value with average day temperature | Degrees Celsius |
| *min\_temp* | Numerical value with minimum temperature that day | Degrees Celsius |
| *max\_temp* | Numerical value with maximum temperature of that day | Degrees Celsius |
| *duration\_sunshine* | Numerical value with the duration of sunshine on that particular day. | Hours |
| *sum\_precipitation* | Numerical value with the amount of precipitation fallen that day | Millimeters |
| *crop\_evaporation* | Numerical value with the evaporation level through crops that day | Millimeters |

**Water price Brabant**(*water\_usage.csv*)

Brief description: This dataset contains information about the water price in Brabant from 2013 until 2020. It includes the water price per cubic meter, the price for connection to the grid and the average water usage.

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| **Column name** | **Description** | **Unit** |
| *year* | Column with the year | - |
| *water\_price* | Numerical value with the price of the water per cubic meter | Euros per cubic meter |
| *connection\_cost* | Numerical value with the price of the yearly connection cost | Euros |
| *average\_usage\_pp* | Numerical value with the average yearly usage of an individual in cubic meter | Cubic meter per person per year |

**Available housing stock Brabant**(*housing\_stock.csv*)

Brief description: This dataset has data about available housing in several cities in Brabant. The housing is divided in several categories like buy or rent and single family or more family. The columns about more families are about housing which is in a building where more families can live. This means apartments, flats, galleries and any other living spaces enclosed by one building. Also, there is a column which has all the existing households from every city and the cities are classified by how urban they are.

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| **Column name** | **Description** | **Unit** |
| *municipalities\_Brabant* | Column with the name of the municipality | - |
| *total\_households* | Numerical value with the amount of households | - |
| *city\_classification* | Categorical value with the urban classification of each city. Possible values are: highly\_urban, mediocre\_urban, little\_urban and not\_urban | - |
| *total\_stock* | Numerical value with total housing stock | - |
| *total\_buy* | Numerical value with total housing stock with houses for sale | - |
| *total\_buy\_single\_family* | Numerical value with total housing stock with houses for sale for one family | - |
| *total\_buy\_more\_families* | Numerical value with total housing stock with houses for sale in a place for more families | - |
| *total\_rent* | Numerical value with total housing stock for rent | - |
| *total\_rent\_single\_family* | Numerical value with total housing stock with houses for rent for one family | - |
| *total\_rent\_more\_families* | Numerical value with total housing stock with houses for rent in a place for more families | - |
| *total\_single\_family* | Numerical value with total housing stock for one family | - |
| *total\_more\_families* | Numerical value with total housing stock for more families | - |
| *total\_social\_housing* | Numerical value with total social housing | - |
| *total\_social\_housing\_single\_family* | Numerical value with total social housing stock for one family | - |
| *total\_social\_housing\_more\_families* | Numerical value with total social housing stock in a place for more families | - |
| *total\_private\_rent* | Numerical value with total private rent housing | - |
| *total\_private\_rent\_single\_family* | Numerical value with total private rent housing for one family | - |
| *total\_private\_rent\_more\_families* | Numerical value with total private rent housing in a place for more families | - |

**Land usage data Brabant**(*land\_usage.csv*)

Brief description: The dataset contains the land usage in cities across Brabant such as agriculture, asphalted land and water surface. It also includes the population of each city and amount of households. The data collected is from 2015.

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| **Column name** | **Description** | **Unit** |
| *municipalities\_Brabant* | Column with the name of the municipality | - |
| *total\_surface* | Numerical value with the total surface | ha (10.000 square meters) |
| *total\_asphalted* | Numerical value with the asphalted surface | ha (10.000 square meters) |
| *total\_builded* | Numerical value with the builded surface | ha (10.000 square meters) |
| *total\_semibuilded* | Numerical value with the semibuilded surface. This means terrain that has been hardened, but not used as builded terrain | ha (10.000 square meters) |
| *total\_recreation* | Numerical value with the recreational surface | ha (10.000 square meters) |
| *total\_agriculture* | Numerical value with the agriculture surface | ha (10.000 square meters) |
| *total\_forest\_nature* | Numerical value with the surface of forests and natural areas | ha (10.000 square meters) |
| *total\_land\_surface* | Numerical value with the land surface | ha (10.000 square meters) |
| *total\_water\_surface* | Numerical value with the water surface | ha (10.000 square meters) |
| *total\_households* | Numerical value with the amount of households | - |
| *total\_population* | Numerical value with the amount of inhabitants | - |
| *dry\_natural\_land* | Numerical value with the land surface which is dry | ha (10.000 square meters) |
| *wet\_natural\_land* | Numerical value with the land surface which is wet | ha (10.000 square meters) |