

## Data Engineer Challenge – Technical Interview

### Context

The Data Engineering team at Axpo is responsible for implementing connections to external parties and building the data pipelines for the energy trading and sales systems and processes.

In this case, there is a new contract that will start at the beginning of next month and we need to ensure that the data flows into our systems correctly. For that, the TSO (Transmission System Operator) Red Eléctrica has provided 2 sample messages.

The messages are of 2 types: "Provisional" and "Final". "Provisional" data is received every day with D-1 data, while "Final" data is received only one month after (M-1). It is important to ensure that the best available data is accessible.

Keep in mind that these are just 2 sample messages, but once the contract is live, we will receive around 5.000 messages per day.

It is your task to implement a python code that reads, processes and stores this data considering the specifications below. If any elements are missing or you need to make any assumptions, please clearly outline them.

### Requirements

- Use python version 3.8 or above.
- Use SQLite for the DB.
- The Datetime fields must be stored in UTC time zone.
- The code must ensure that the files received pass certain validations. If one of the validations fails, the message should not be stored.  
Validations:
  - The period of data the file contains must be exactly 1 full day.
  - The values must contain exactly 2 decimals.
  - Sequence numbers must start from 1 and go incrementally with no gaps.
- The code shall be available in a git repository (github, bitbucket, gitlab...).