Data Engineer – Recruitment Test Instructions

You have until **Monday at midnight** to submit your test results. Feel free to spend as much time as you need, please indicate how much time you actually spent. At MSF, we value a good work-life balance, so there’s no need to invest all your free time into this test.

# Part 1: Context and Data

You will be working with SQLite databases, each representing a project with three years of historical data. Your task is to process, model, and analyze this data to produce a clean, modern reporting solution.

* **Data Integration & Architecture:** Use Python to extract and transform the data, implementing a medallion architecture. Ensure proper currency conversion using a specified API ([http://www.exchangerate-api.com](http://www.exchangerate-api.com/) - you will need to create a pro trial license) and the exchange rate of the last day of each month.
* **Data Modeling:** Create a clean, reusable data model for reporting and analysis, ensuring consistency across projects and time periods.
* **Report Reproduction:** Reproduce the attached Power BI report screenshots using your integrated dataset, matching the layout, logic, and results exactly. Please focus on Modelization and Best Practices in DAX and send us back your powerbi report.
* **Scalability & Future-Readiness:** In a short document, explain what you didn’t have time to implement, how you would scale the architecture for more projects, and which AI features you would introduce in the future.

# **Part 2: CPM Board**

Imagine you have to build a Budgeting application using Board: based on your understanding of [this documentation](https://help.board.com/docs/welcome-to-the-board-knowledge-base). Assume the accounting database is hosted on a PostgreSQL server in our cloud. Please explain how you would use CPM Board as our budget and forecasting tool in a few paragraphs in a Word Document.

**Part 3: About you**

We also ask you to share which media or resources you follow to stay up to date with the latest technologies, and to provide your feedback on the test itself.