

MEWS

Analytical Engineer

Finance and Operations (Data)

Model Situation

We are rolling out a new infrastructure that consolidates general ledger (GL) data from multiple systems, including Salesforce (CRM) and Business Central (ERP). This includes journal entries, account metadata, entity hierarchies and FX data.

The data has already been ingested into the data lake and surfaced into raw structured tables. Your task is to begin the data modelling process using dbt, focusing on building reliable foundations for financial reporting.

Homework

You are working with a new general ledger dataset ingested from multiple systems. Your task is to design and build foundational dbt models that prepare this data for financial reporting and analytical integrity. The dataset includes journal entries, accounts, and entities.

We want you to model total revenue split by IX (and any other granularity you believe would help the narrative) to stakeholders to enable them to identify high performing areas that could benefit from increased investment.

What We Expect:

- Use dbt to transform the data into a usable state for finance stakeholders.
- Focus on what you believe is core to enabling strong insights and building high trust in the data. You do not need to model everything.
- Apply rigorous testing to ensure data quality and control. Financial integrity is essential.

You are free to explore the data and design your models as you see fit. Prioritise clarity, consistency, and trust in the results. Please highlight any risks, challenges, or unexpected results you encounter and explain how they might be handled in a production environment.

AI

We understand that many candidates use tools like ChatGPT or GitHub Copilot to increase productivity. We do too. We encourage thoughtful use of AI, especially for boilerplate code, documentation drafts or debugging tips. However, we're looking for candidates who:

- Know when and how to use AI tools effectively.
- Can critically assess and refine AI-generated output.
- Demonstrate ownership over the final product. Your code, logic, and decisions should be your own.

Assessment Criteria

- A thoughtful approach to modelling and testing that demonstrates your SQL and dbt experience
- Understanding of data integrity in financial contexts
- Ability to balance flexibility with robustness
- Curiosity, creativity and clear communication
- Identify how you use AI to boost your productivity

Please submit the dbt directory (zipped or GitHub repo) along with any commentary within a week to the recruiter.

Installation Guide

To get started, please install Docker on your machine from [here](#). If you have any issues in setup, please get in touch. You will need to open Docker and complete the login (choose skip!).

Mac

```
sh build.sh
```

Windows

```
Run build.bat
```

Cleanup Guide

Mac

```
sh clean.sh
```

Windows

```
Run clean.bat
```

Access Credentials

- **Endpoint:** localhost:5465
- **Database Name:** proddb
- **Username:** produser
- **Password:** prodpassword

