

Take-Home Exercise: Modeling Double-Entry Bookkeeping

Overview

Goal is to design a database schema for a basic double-entry bookkeeping system.

This is **not** about a full application - it's more about the data model, relationships, constraints, and how you'd query the data (preferably with Django ORM).

You are free to use any tool you prefer to present your solution (Django models, SQL schema, diagram, or a combination).

Estimated time: Exercise should take 1-2 hours, depending on what level of details you find satisfactory.

Focus on clarity and correctness over completeness - it's about MVP we can discuss about and which you can elaborate and explain, not about delivering any implementation.

Useful links:

- <https://martin.kleppmann.com/2011/03/07/accounting-for-computer-scientists.html> -> sufficient for the task.
- <https://www.youtube.com/watch?v=yYX4bvQSqbo> -> if you want to get a better grasp on accounting, however it contains explanations for more sophisticated concepts not needed for this exercise.

Scenario

Model a system that supports basic accounting with double-entry rules. The design should:

- Represent moving value between 2 or more accounts.
- Store essential data.
- Contain mechanisms for ensuring data quality.

Finding out what are the rules, constraints, and what is essential in schema is part of the exercise.

Deliverables

To focus the meeting on discussion, design should be delivered at least an hour before the meeting for review.