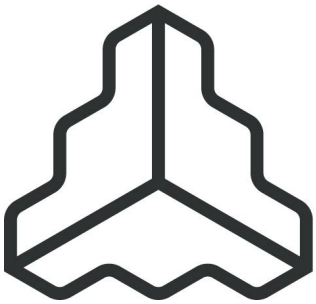

Frontify

DATA ANALYTICS ENGINEER TASKS

INTRODUCTION AND SETUP

Please log in with the credentials you were given to our Snowflake database using the following link https://frontify.eu-central-1.snowflakecomputing.com/console/login#/.

In a worksheet you can submit and test your sql statements. You were given access to the database APPLICATION_TASKS and schema DATA_ANALYTICS_ENGINEER. You only need this database and schema for the task. If you are not familiar with Snowflake we kindly ask you to get familiar with Snowflake using the resources on the web.

You should be able to see and select the following four tables

- HISTORIC_DEAL_PROPERTIES
  Description: Includes information about our deals managed by our Sales team.
    DEAL_ID : unique ID per deal
    TIMESTAMP: time when the property of the deal changed
    PROPERTY_NAME: the individual name of the deals property that was changed
    VALUE: the value that was entered at the time of change
- MRR_PER_ACCOUNT
  Description: Includes monthly subscription information for our accounts managed by our Finance team.
    ACCOUNT_ID: Unique ID per account
    Month: the Month to which the MRR is attributed
    MRR: the Monthly Recurring Revenue for the account in the specific mont**h**
- DEAL_DIM
- DEAL_FACT

TASK 1:
Write an SQL-statement that gets the latest VALUE and the associated TIMESTAMP per DEAL_ID and PROPERTY_NAME from the HISTORIC_DEAL_PROPERTIES table.

TASK 2:
Write an SQL-statement that gets the Current MRR per ACCOUNT_ID and MONTH, and the MRR of the previous month in each row. For this task use the MRR_PER_ACCOUNT table.

TASK 3:
You can solve part a and b, either using Snowflake and SQL or Python/R. If you want to use Python/R just export the tables as csv. The graphical illustration in part c must be done in Python or R.

Please use the following two tables for this task:

- DEAL_DIM
- DEAL_FACT

The description of the variables can be found in the following google sheets (Column description of the Deal data). Please note that the documentation is not split by table.

Business Definition for Deal Pipeline

Each deal starts in Opportunity stage

A deal can only move up stages up not down.

Stage 1) Opportunity
Stage 2) Business Case Proposal
Stage 3) Negotiation (P, L & S)
Stage 4) Verbal Agreement
Stage 5) Booking
Closed lost) Closed lost deals can be moved of any stage to Closed lost

The task

a) Please perform an EDA on the deal stages (opportunity, business case proposal, verbal agreement, negotiation, booking, closed lost).

b) Are there any discrepancies in the data which the business must adjust? Exclude values if they do not fit the deal pipeline definition. Please also validate if the current_deal_stage is correctly defined.

c) Please create visualizations for the following questions:

i) Number of opportunities over time (monthly, deal stage date or opportunity date).

ii) Total opportunity amount and booking amount over time on a monthly basis in one graph.

ii) Average Sales cycle time over time