Data Modeling for the Modern Warehouse — Conformed Dimensions and Reporting Models

# Project 3 Instructions

# Introduction

Welcome to your third project! In this project, you'll work through a realistic data modeling scenario that will require both technical knowledge and business savvy. The goal of the project is to help you practice building reporting models that will satisfy business requirements on top of your core facts and dimensions.

I've designed the fictional business in this project to be as simple as possible. For this project, I **want** you to focus on the insights your business partners need from the data, and how to use the dimensional framework to reveal those insights. I **don't want** you to "get in the weeds" of this business' source data; we've already spent a lot of time practicing that in Weeks 1 and 2.

# Project Detail

## Prompt

Imagine that you are helping DataDraw, a B2B SaaS company whose software makes it *really easy* for data teams to draw Entity Relationship Diagrams and document their tables. DataDraw is a brand new startup, and although the founder is an experienced data modeler, she is too busy building the company infrastructure to spend much time on the business intelligence system herself. She

has, however, built a logical model of some fact and dimension tables that she constructed. She added color to some lines that cross so that we wouldn't get confused about the relationships:

On your first day working for DataDraw, you have a meeting with the founder to understand the business intelligence objectives for the company. She says the following:

*"*

*The top business intelligence objectives for DataDraw are as follows. Firstly, we need a high-level KPI dashboard that shows our revenue, the number of trials we have in the pipeline, and how much customers are using the most important product features. Secondly, we need a low-level product analytics dashboard so that our Product Team can gauge the health of individual features. Are our customers using the product how we think they should? Lastly, we need a customer scorecard dashboard to help the sales team understand whether an existing customer is at risk of churning, and which trials are likely to convert to paying customers.*
*"*

## Directions

1.  Create some mockups of dashboards that would satisfy the requirements given by the founder of DataDraw. These can be created using your favorite online drawing tool, or you can draw them by hand and take a picture. They don't have to be super detailed, but should give you an idea of the tables that will be needed to build these dashboards.

2.  Using your dashboard mockups and the logical model supplied by the founder of DataDraw, design reporting tables that will be layered on top of DataDraw's core dimensional models that will enable you to build the requested dashboards. In a Google Doc, write some pseudo SQL that you would use to create these reporting tables. Add table documentation and 5-10 records of sample data for each table.

3.  Submit the text document in the link below. Make sure the sharing settings are set so that anyone with the link can comment and that you put your name in the title of the Google Doc. Please be sure to attach a screenshot/image of the dashboard mockups to the Google Doc!

**Bonus #1**

Using the sample data you created in step 2, write pseudo SQL that would produce the charts/visualizations in your dashboard mockups.