Data Modeling for the Modern Warehouse — Common Use Cases

Project 4 Instructions

Introduction

Welcome to the fourth and final class project! In this project you'll practice evaluating a new dataset and incorporating it into an existing business intelligence system. Additionally, you'll practice explaining the benefits of the new dataset to a non-technical business partner.

Project Detail

Prompt

Imagine that you've been contracted by a small online business, Quilty, to help them report on sales trends. Quilty delights their customers by delivering beautiful handmade quilts at an affordable price. The two dozen varieties of offered quilts vary in size, color, pattern, and price.

Quilty's owners recently decided that their hastily thrown-together payment system was no longer sufficient to support the growth of the company, so they decided to switch to Stripe as their payment processor. In making this switch, the owners of Quilty hope to provide a better purchase experience for customers, eliminate manual work in payment processing, and expand reporting capabilities.

Up until this point, Quilty's sales data has left much to be desired. All sales transactions are recorded on a piece of paper, until the end of each week when the owner has time to enter the weekly sales totals in a Google Sheet that is used for revenue reporting:

Quilty wants to get serious about using data to measure the health of the business, so they recently set up a data warehouse to collect & analyze data. They are using Fivetran to load all raw data (including the Weekly Sales Google Sheet) into their data warehouse. Now that Quilty has implemented Stripe as its payment processor, you set up the Stripe integration on your Fivetran account to pipe the raw data into your data warehouse. In addition to this, you take advantage of Fivetran's Stripe dbt packages to create clean reporting models with data that's ready for analysis (to learn more about this, check out the Stripe preview module). Here is a DAG of the tables produced by the dbt packages:

Documentation for the reporting tables can be found here.

During a recent meeting, the Quilty's owners ask you to research the additional reporting capabilities that Stripe will enable above what is currently available in the Weekly Sales Google Sheet. You tell them that you'll look into it and get back to them by the end of the week.

Directions

1. In a Google Doc, write an email to Quilty's owners describing, *in business terms*, the additional reporting capabilities that would be made available by Stripe's data.
2. Make a recommendation on what should be done with the old revenue reporting process. Should Quilty stop manually recording transactions? Should Quilty delete the Weekly Sales Google Sheet and drop the historical data from the warehouse?
3. Wireframe a chart/report/dashboard that previews the additional insights that Stripe data enables.
4. Submit the Google Doc 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 attach images/screenshots of any visualizations in the Google Doc.

Bonus #1

Write a paragraph or two reacting to the provided resources from this week's content arguing for and against dimensional modeling:

> “
> *While I am a proponent of dimensional modeling and it is widely accepted across the industry, I recognize that not everyone will share my perspective and that there is no single correct way to model data. I try to be transparent about the arguments against dimensional modeling (and the counterpoints in favor of it).*
> ”