Data Modeling for the Modern Warehouse — Applying Fundamentals of Dimensional Modeling

Project 2 Instructions

Introduction

Welcome to your second project! The goal for the project is for you to practice what we learned this week and iterate on your ideas from the first project. I chose to use the same prompt as last week to give you an opportunity to develop your ideas, and make adjustments as necessary.

As with last week, the project is open ended with multiple possible correct answers. Don't be afraid to reach out with questions!

Project Detail

Prompt

This week's project will have the same context as the last week's project, VeggieMart. As a reminder, VeggieMart is a grocery chain that operates much like most other grocery stores. VeggieMart has the following business rules:

> All managers are employees, but not all employees are managers.
>
> Each store has only one manager.
>
> Employees have a unique role at a store of either "manager" or "store worker".

A manager can lead multiple stores, but store workers can only work at one store.

Transactions can have multiple items.

Transactions occur only in USD.

You can make reasonable assumptions about the rest of VeggieMart's business rules.

Directions

1. Create a logical data model diagram that would store data for VeggieMart and answer the following questions. You can use any tool or drawing to create the model; I recommend this free online modeling tool: lucidchart.com.
2. Once you have designed the model, write the SQL that selects from the model that answers the following questions:

    What is VeggieMart's monthly revenue?

    Which manager had the highest revenue across all stores they manage last year?

    What was the most-purchased item across all stores last week?

3. Write a text document (Google Doc is fine) that explains how you worked through the four steps of dimensional modeling to arrive at your logical data model. You can include your SQL queries in this text document.
4. 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 logical data model you created to the Google Doc!

Bonus #1

Expand your SQL queries and logical data model to account for even broader questions. Which item accounted for the most profit last year? In which state did VeggieMart make the least profit? How many frozen turkeys did VeggieMart sell last November?

Bonus #2

Record a 2-4 minute video (using Loom or any other tool you prefer) as if you were presenting your logical model to a non-technical business partner. This type of presentation is becoming more and more relevant in the industry, and is commonly part of interview processes. A key part of data modeling is being able to present and articulate your work - I encourage you to try even if you don't have prior experience! Feel free to watch the videos of other students and take note of their technique.

Submission Instructions

IMPORTANT SUBMISSION INSTRUCTIONS

Before submitting your project, please set the sharing permissions such that anyone with the link can **comment** on the sheet.