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Module 4.15

Descriptions of Tables in Dimensional Model ERD

Fact Tables

Fact_Sales: Table to contain values on sales for a single sales header or purchase. The table contains information on the dollar amount of the sale, sales quantity, the cost of the sales, as well as a column for the profit the company earned. Foreign keys are the product associated with the sale, the date of the sale, and the associated sales header.

Fact_ProductSalesTarget: Table to contain values of the daily sales quantity target per item. Values need to be loaded by dividing the annual quantity targets by 365. Foreign keys are the product associated with each quantity target as well as the date dimension to distinguish between 2013 and 2014 year targets.

Fact_ChannelResellerStoreTarget: Table to contain values of the daily sales amount targets for the relevant entities. Values need to be loaded by dividing the annual sales amount targets by 365. Similar to the other target fact table, foreign keys are the date dimension to distinguish between 2013 and 2014 targets. Additionally, the channel, reseller, and store dimensions are also foreign keys.

Dimension Tables

Dim_Product: Table to contain attributes for a single product. The table tells us a product's name, color, style, weight, price, cost, wholesale price, as well as its profit margin, and the wholesale profit margins. The final two attributes are calculated attributes necessary for our metrics.

Dim_ProductType: Table connected to Dim_Product to contain product type names. Forms a Snowflake schema with connection between two dimension tables.

Dim_ProductCategory: Table connected to Dim_ProductType to contain product category names.

Dim_SalesHeader: Table to contain properties of a single sale whose values are captured in the Fact_Sales table. The sales attributes include the sales header, channel, customer, reseller, store, and the date when the sale took place. These are stored as foreign keys. Additionally, we have a natural key for the SalesHeaderID.

Dim_Store: Table to contain attributes of a single store. It contains the store number, store manager, sub-segment, as well as a foreign key to the Geography table to pull address information.

Dim_Reseller: Table to contain attributes of a single reseller. It contains information on the reseller name, phone number, email address, as well as the link to the Geography table to pull address information.

Dim_Channel: Table to contain attributes of a single channel. It contains the channel name and channel category, in addition to the necessary surrogate and natural keys.

Dim_ChannelCategory: Table to contain attributes of a single channel category. It contains the channel category name, in addition to the necessary surrogate and natural keys. It forms a Snowflake in connection to the Dim_Channel dimension.

Dim_Customer: Table to contain attributes with each row referring to a single customer. In addition to the necessary natural and surrogate keys, the table contains first and last names, gender, email address, relevant sub-segment, as well as a link to the Geography table to provide address information.

Dim_Segment: Table to contain attributes of individual segments.

Dim_SubSegment: Table to contain attributes of individual sub-segments.

Dim_Date: Designed separate Dim_Date table to contain common date values such as day, month, year, and the day name – with the grain referring to a single day. More specific grains such as the time are likely not necessary for our analysis.

Dim_Geography: Designed separate Dim_Geography table to contain common address, city, state/province, country, postal code information. This table is then linked to the store, reseller, and customer tables to contain their address information.