See Nexus to submit your work: Assessments >> Quizzes >> Assignment 2

Part I:

In this part you create a family of stars and run queries on them. Consider the schema shown in Figures 4-4 and 4-8. The Northwind database only records one quantity (*quantity* in *Order Details*) and has dates in *Orders*: *ordered date* and *shipped date*. We assume that each order when shipped is complete, so if there is an order that has shipped, then the quantity ordered equals the quantity shipped.

A. Code the necessary ETL to create Order_Facts, Shipment_Facts, and the Shipper dimension; note that you have the Day, Customer, and Product dimensions from Assignment 1. You will be asked to submit your ETL script as one SQL file.

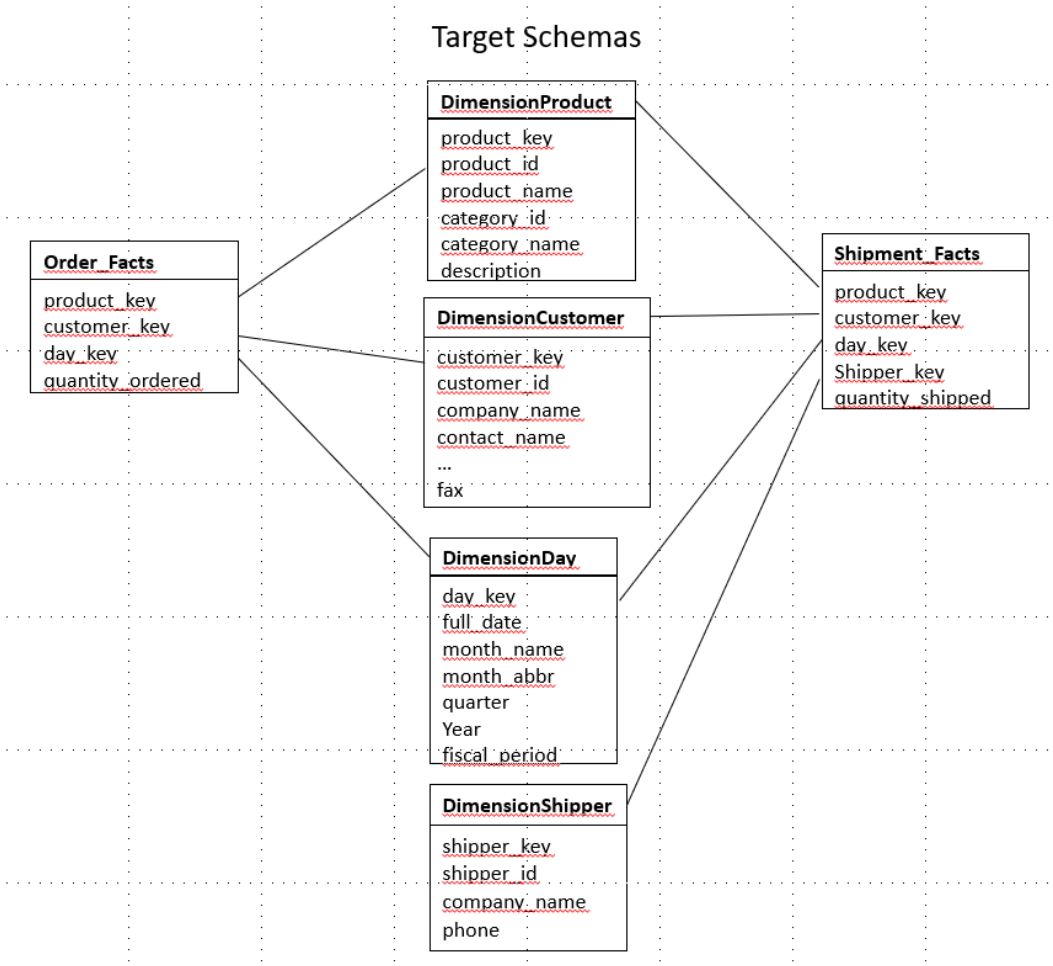
B. In Figure 4-10 *Joining two fact tables leads to trouble,* there is an SQL statement that produces a result for product, sum of quantity ordered, sum of quantity shipped). Run that report on your new star schemas. Are there any problems with the result? Do you trust the results to be correct? You will be asked to submit the query used and the result.

C. In Figure 4-12 *Drilling Across*, a technique is illustrated to produce correct results -see Figure 4-11 *Drilling across orders and shipments*. Implement this technique. You will be asked to submit the queries used and the result.

Be prepared to comment on differences between the results of B and C.

Regardless of what Nexus may say, you have until Oct 17 to complete the work. Nexus thinks there is a time limit… all that matters is that you submit by Oct 17. Any number of attempts is okay, but only the last one is marked.

Schemas to build:


Target Schemas
DimensionProduct
product_key
product_id
product_name
category_id
category_name
description
Order_Facts
product_key
customer_key
day_key
quantity_ordered
DimensionCustomer
customer_key
customer_id
company_name
contact_name
...
fax
Shipment_Facts
product_key
customer_key
day_key
Shipper_key
quantity_shipped
DimensionDay
day_key
full_date
month_name
month_abbr
quarter
Year
fiscal_period
DimensionShipper
shipper_key
shipper_id
company_name
phone

Part 2:

In this part implement DimensionShipper as a time-stamped Type 2 (effective date, expiry date, current indicator) . This work is separate from Part 1.

Create a table, *Changes*, holding updated shippers and newly added shippers. Assume these are changes users have made to the Shipper table in the OLTP environment.

Use SQL to migrate the changes to the Type 2 Shipper Dimension. Your SQL would work for any other contents of *Changes*. You will be asked to submit Changed as DDL and Inserts, and the ETL code you have written to migrate changes to the warehouse.