* All dimensions table names with dim in prefix and fact tables with fact in prefix.
* Names and data types for all columns listed. Reason for choosing varchar () for postal code is to prevent preceding zeros in postal code being dropped. Reason for choosing varchar () for phone number is to accommodate any extensions.
* All dimension tables have surrogate keys which have names of form dim+ tablename+key
* All primary keys and foreign keys are identified in the tables as PK and FK respectively
* All natural keys are included in the tables
* All dim tables are logically connected to fact tables
* Sales Detail ID, Sales Header ID are degenerate dimensions (DD) because all its components have been stripped as facts and left alone. So they are placed in fact table as DD.

|  |  |
| --- | --- |
| **Dim Product** | To identify product ID, PRODUCT, product type id, product type, product category id, product category, color, style and weight of all products sold per day.  **Grain – Product**  I modelled that way because product is the smallest detail you can obtain about a product. Eg: under accessories category under cosmetics type blush is the smallest detail |
| **Dim Channel** | To identify Channel id, channel, channel category ID, Channel category for each sales transaction.  **Grain – Channel**  I designed that way because channel is the smallest detail you can obtain about a channel |
| **Dim Customer** | To get Customer id, name, gender, email address, phone number and address of each customer who purchased products.  **Grain – FirstName, LastName**  I designed that way because first name and last name are the smallest level of details for any customer |
| **Dim reseller** | To identify Reseller id, name, contact, email address, phone number, address of each reseller who purchased products.  **Grain – ResellerName**  I designed that way because reseller name is the smallest detail of reseller available |
| **Dim date** | To collectively get the dates of transactions happening in all channels and estimated targets set by business  **Grain – Fulldate**  Fulldate gives the exact and atomic detail about the date |
| **Dim store** | To identify Store ID, Store number, manager, phone number and address of each store in where products are sold.  **Grain- store number**  Because store number is the smallest level of detail about the store |
| **Fact Sales** | **Grain – each product sold/per customer or reseller / each store /channel /day**  Designed that way in order to make analysis of daily transactions for different products through different stores and channels |
| **Fact ProductTargets** | **Grain – per product/ per day target sales quantity**  Designed that way to get useful insights about how well a product is being sold for each day |
| **Fact SalesTargets** | **Grain – per TargetName/ per Channel/ per day in 1 row**  Designed that way to get useful insights about how well different channels, stores, customers and resellers transactions are happening compared to expected values set by business |