DBS Phase 1

Medical Product for eye care

I have worked as a QA in a bio-pharmaceutical company for 2 years that specialized in eye care products. This database software will allow us to track which products, which concentration, which packaging, etc will maximize our profit and output. So, it will have participants as compounding, manufacturing, sales/marketing team, retailers and customers. Compounding will provide the compounded product to Manufacturing. Manufacturing then essentially packages the product with the packaging info (Box Color and Box Size) that is provided from Sales/Marketing for the specific product. Sales/Marketing has single existence that interacts with all manufacturing sites and uses various marketing techniques such as radio, ad boards and TV advertisements for the products. Sales/Marketing will also check the liking of the specific product by engaging in a customer feedback survey via a satisfaction survey from the customer. Retail will have a name, location and keep track of the total number of orders received throughout its inception. Manufacturing will ship the packaged product to retail store with a certain order quantity and the date it was done. Retail will track the product sales of each product, the sale price of the product, the quantity sold of that product. The customer will have a customer ID, Name and DOB, and will buy the product from the retail which we can record the Date of purchase.

Participants and Attributes:

**Compounding**

* Location
* Compounding ID: ID number for the different kinds of product made
  + Number of products - 5: Systane, Optifree, Naphcon, Zaditor, and Nevanac.
  + Storage temperature of products (Room temp or cold storage)
  + Various concentration
    - Each of 2 concentrations such as 2% and 5%

**Manufacturing**

* Product ID
* MFG Price
* Location of sites.
* Number of output for production site
* Number of delays/issues reported for each site

**Sales/Marketing**

* Sales Product ID: ID for the specific product
* The packaging type (Color of the box, and size of box)
  + The size and color of packaging appeals to customers so we can capture which color and size is most bought. This info will be sent to Manufacturing.
* Marketing technique (Radio, ad boards, etc).

**Retail**

* Name
* Location
* Date of orders (In shipped relation)
* Total # of orders (To see which retail orders the most)
* Product sales
  + Product ID
  + Quantity sold
  + Sale Price
  + Date sold(Day, Month, Year)

**Customer**

* Customer ID
* Name
* DOB
* Satisfaction survey (Rating from 1 to 5)
  + Survey of customer rating of product sent to sales/marketing.

Business goals/ functions(Data to Capture):

* Reports for the optimal product and optimal concentration in terms of most sold/profit.
* The manufacturing site with most output (product produced) and number of production delays.
* Out of different packaging designs, record which is the most bought/sold from its counterparts.
* The location/region which orders the most.
* The product that are most popular (in terms of sale) in winter, spring, fall, and summer.
* The best marketing technique that leads to the most increase in sales for our products, ex: radio, billboards, community engagement, TV ads, etc.
* The big retail stores such as CVS, Walgreens, etc that order the most and the location/region they are located.
* Which month the retail orders the most.
* The product with the most sales in retail stores.
* The product with least rating.