

When I'm explaining my tables, use my diagram from the link below to follow along.

Link:

https://drive.google.com/file/d/1IZpW43uzqXa5UOlyfTGr-AS5SUX9-glo/view?usp=drive_link

To summarize my diagram, it has the following:

1. Information about my employees and their departments.
2. Information about my products such as price, category, supplier id, etc.
3. Location of all of my products.
4. Order table keeping track of any ongoing or completed orders.
5. Logging the location of any part being moved around the warehouse.

Warehouse Design

Each part in my warehouse is given a location. These are known as bins and zones.

I've categorized Bins as shown below

- A-Z: Shelves containing products inside the warehouse
- REC: Parts in the receiving center that needs to be stored in their shelves
- PICK: Parts that have been picked for an order
- STAGE: Parts that are in standby until all parts have been gathered for an order.
- COMP: Parts for an order that has been processed
- FINAL: Parts that has been shipped

Zones are specific areas inside these bins. I will explain it as such.

- Zone: A
 - Bins: A101, A102, A103
 - Bins are organized with a number attached to its zone name. These bins represent shelves in the warehouse where parts will be stored at.
- Zone: PICK
 - Bins: GREY_TOTE_101, GREY_TOTE_102, GREY_TOTE_103
 - When a worker picks an item from their shelf, they will place them inside grey totes. These totes will have unique ids on them as shown above. The purpose is to know what parts are where as they are being moved
- Zone: STAGE
 - Bins: STAGE_001, STAGE_002, STAGE_003
 - In the shipping departments, parts will be scanned onto shelves labeled as STAGE. They will remain on this shelf until all parts for a particular order have been gathered.
- Zone: FINAL
 - Bins: FINAL 0x00000001, FINAL 0x00000002, FINAL 0x00000003
 - When all parts have been gathered from the staging area, they will be placed into the final tote known as FINAL. These totes will be given to the shipper who will then process the order.
- Zone: COMP
 - Bins: ORDER_TOTE_00001, ORDER_TOTE_00002, ORDER_TOTE_00003
 - Once the shipper has finished verifying the parts for an order, they will be labeled as COMP before being shipped out.

Warehouse Products

For further information, I'm using real life companies as suppliers. They will have the following IDs and names

- 2 - Dynamic Friction Company
- 3 - E3 Spark Plugs
- 4 - GM Parts Club
- 5 - KYB

I've also categorized my items as such with their IDs

- 1 - Rotors
- 2 - Spark Plug
- 3 - Suspension
- 4 - Alternator
- 5 - Belt
- 6 - Brake Pad
- 7 - Shock Absorber

This [link](#) contains information about the products being used. I'll be using these parts as an example for when a customer places an order.