Retail Business

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Our Project

- What is it?
  - Retail database application is used by the retail store administrators
- Problem/Issue
  - Data is truncated into different csv files
  - Lack of consolidated view and search/filter ability
- Goal
  - Creating an efficient database with scattered data like:
    - Payment data
    - Customer data
    - ...
  - Able to fetch data efficiently
- Features
  - View tables
  - Edit tables
  - Ability to search specific attributes by filter

How it works

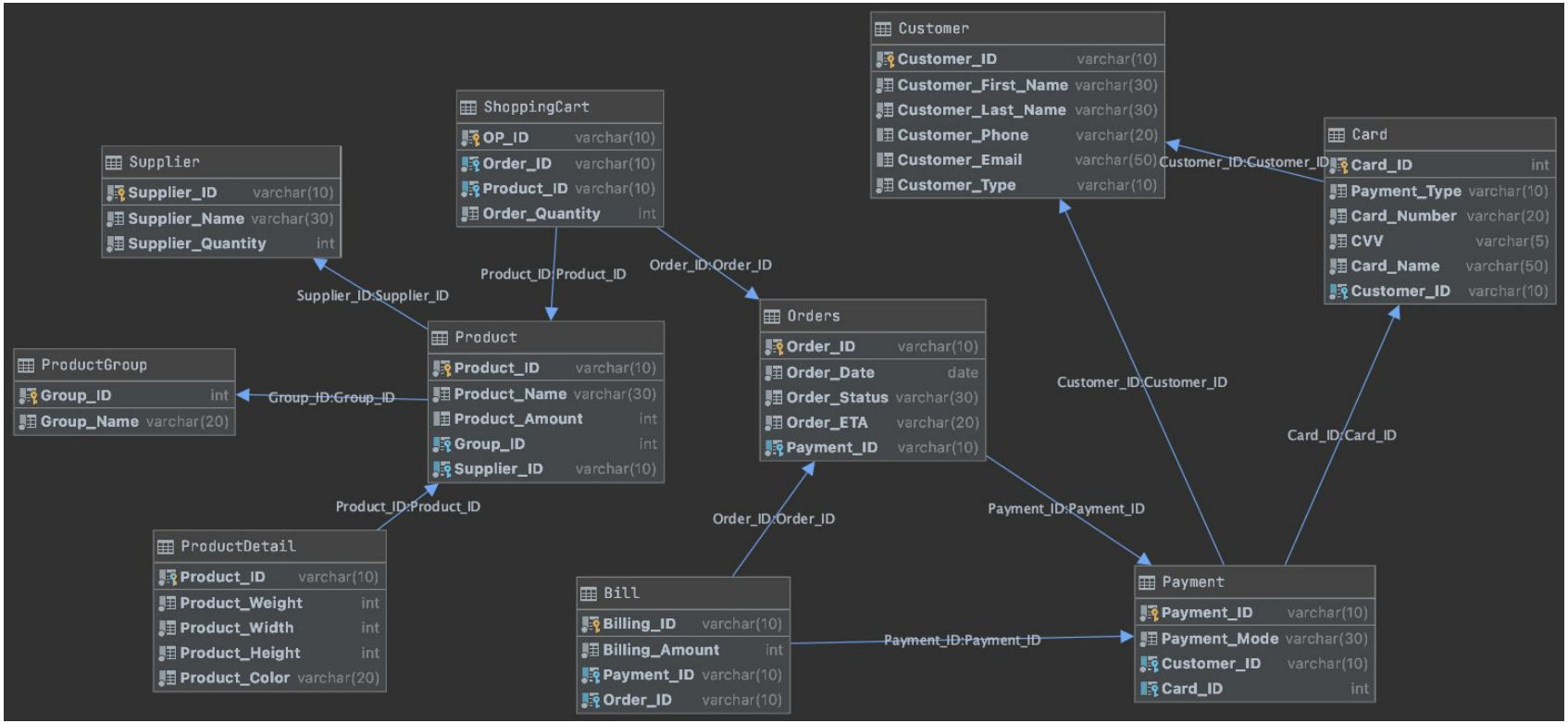
- Back-End/Database
  - Design database schema based on data provided
  - Normalize tables and create using MYSQL
  - Maintain referential integrity to keep consistency
  - Create index to make searches more efficient
- Front-End
  - A python application for the end users to interact with.
- The end-user for this application is not customers but managers

Example

A more specific interaction our application will allow the end-user to perform is:

1. Ask user if they want to search by any features (yes or no)
    a. If yes, user will be asked what feature and what the condition is
    b. Continue to *2.* if no
2. Ask user how many records they would like to see (partial or all)
    a. If partial, ask user how many records they desire to see
    b. Show all records if all

ER Diagram


Customer
Customer_ID varchar(10)
Customer_First_Name varchar(30)
Customer_Last_Name varchar(30)
Customer_Phone varchar(20)
Customer_Email varchar(50)
Customer_Type varchar(10)
Card
Card_ID int
Payment_Type varchar(10)
Card_Number varchar(20)
CVV varchar(5)
Card_Name varchar(50)
Customer_ID varchar(10)
Customer_ID:Customer_ID
ShoppingCart
OP_ID varchar(10)
Order_ID varchar(10)
Product_ID varchar(10)
Order_Quantity int
Supplier
Supplier_ID varchar(10)
Supplier_Name varchar(30)
Supplier_Quantity int
Product_ID:Product_ID
Order_ID:Order_ID
Supplier_ID:Supplier_ID
Orders
Order_ID varchar(10)
Order_Date date
Order_Status varchar(30)
Order_ETA varchar(20)
Payment_ID varchar(10)
Product
Product_ID varchar(10)
Product_Name varchar(30)
Product_Amount int
Group_ID int
Supplier_ID varchar(10)
ProductGroup
Group_ID int
Group_Name varchar(20)
Group_ID:Group_ID
Customer_ID:Customer_ID
Card_ID:Card_ID
Product_ID:Product_ID
Order_ID:Order_ID
Payment_ID:Payment_ID
ProductDetail
Product_ID varchar(10)
Product_Weight int
Product_Width int
Product_Height int
Product_Color varchar(20)
Bill
Billing_ID varchar(10)
Billing_Amount int
Payment_ID varchar(10)
Order_ID varchar(10)
Payment_ID:Payment_ID
Payment
Payment_ID varchar(10)
Payment_Mode varchar(30)
Customer_ID varchar(10)
Card_ID int

Demo