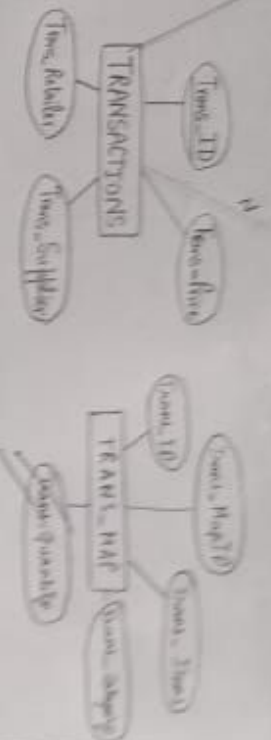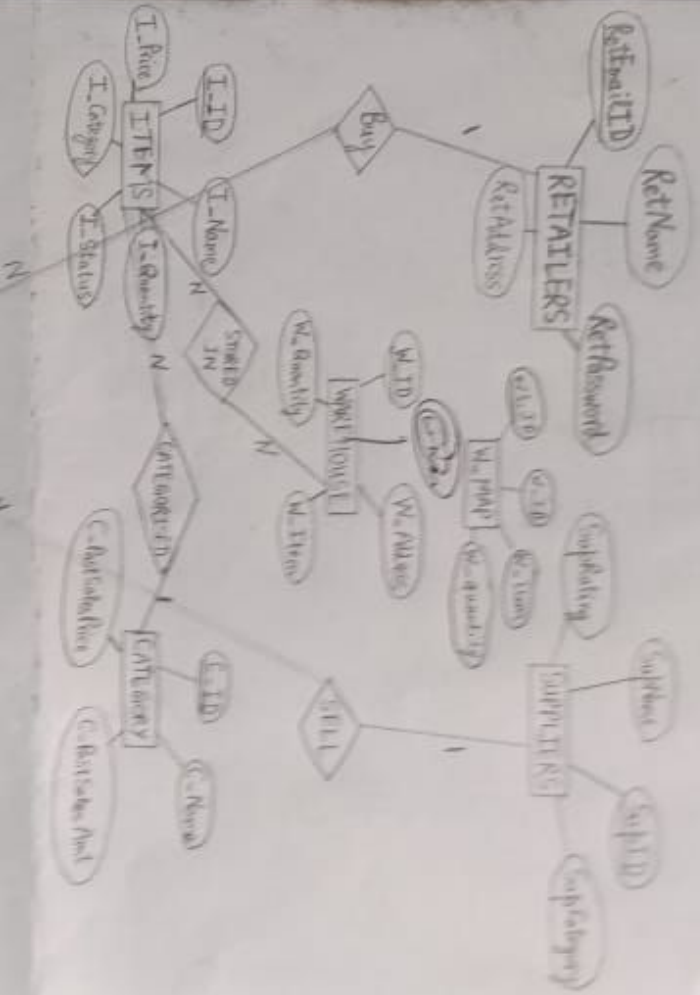# Inventory Control Management System

This database management project is meant to cater for a retail warehouse.

- The SUPPLIERS and RETAILERS go through the warehouse database to place orders. The warehouse database effectively acts as a middleman for the transactions.
- SUPPLIERS have a SupName and are assigned a SupID. They are categorized in SupCategory based on what they sell. Based on the SUPPLIERS integrity and regular deliveries, they are rated with a SupRating.
- The RETAILERS register their RetName and are assigned a RetEmailID and a RetPassword. Their RetAddress is also stored for logistical purposes.
- The ITEMS received from the SUPPLIERS are organised according to their I_ID, I_Name and I_Category. Based on the I_Quantity, the I_Price is decided. A record of the I_Status is too maintained for the RETAILERS.
- These ITEMS are organised into many categories in CATEGORY. Each CATEGORY is assigned a C_Name and C_ID. An account of the C_PastSalesAmt and C_PastSalesPrice is maintained to compare sales and prices from 6 months ago.
- Records of TRANSACTIONS are kept for data security purposes and to prevent fraud. The Trans_ID is stored and through the Trans_ID one can identify the Trans_Retailer, Trans_Supplier and Trans_Price, Trans_Type, Trans_Quantity, Trans_Items, Trans_Categories with each transaction.
- Items are stored across multiple WAREHOUSEs, each warehouse having its own W_ID, W_Address, W_Item, W_Quantity.

E.R. Diagram

RETAILERS entity with attributes: RetEmailID, RetName, RetAddress, RetPassword

Buy relationship (RETAILERS — ITEMS), 1 : N

ITEMS entity with attributes: I-ID, I-Price, I-Category, I-Name, I-Quantity, I-Status

Stored In relationship, N

WAREHOUSE entity with attributes: W-ID, W-MAP, W-Quantity, W-Item, W-Address, W-Quantity

Supplies relationship

SUPPLIERS entity with attributes: Sup-ID, SupName, Supphonr, SupCategory

Categorised relationship, N : N

CATEGORY entity with attributes: C-ID, C-AutSalesPrice, C-RetailerPrice, C-Normal, C-RetSalesAmt

SELL relationship

TRANSACTIONS entity with attributes: Trans-ID, Trans-Retailer, Trans-Inventory, Trans-SupSupplier

TRANS-MAP entity with attributes: Trans-ID, Trans-MapID, Trans-Time, Close-Quantity, Close-Quantity, Trans-shop

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RELATIONAL SCHEMA

WAREHOUSE

W_ID	W_Addr	W_Capacity

RETAILERS

Ret Name	Ret Phno	Ret Addr

SUPPLIERS

SupName	SupID	SupCategory	SupRating

W_REL

W_ID	W_Item_ID	W_Quantity

ITEMS

I_ID	I_Price	I_Name	I_Quantity	I_Category

CATEGORY

C_ID	C_Name	C_LastSellPrice	C_LastSellPrice

TRANSACTION

Trans_ID	Trans_Ret	Trans_SupID	Trans_Price

TRANS_MAP

TransMap_ID	Trans_ID	TransItem_ID	TransCategoryID	Trans_Quantity