DBMS For ABCD Agency

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ABCD Agency is an agency selling Construction Iron and Cement. It is the only major seller of Cement and Construction Iron in the region hence the sales are high so is the requirement for the data management. As of now most of database work regarding purchase of goods, sales, inventory of goods , transaction records after paying for the goods purchased, managing like transportation costs,labour costs etc. is done on paper and the records are kept in files which occupies a whole lot of space and affects the efficiency of work.

Problems faced by the agency

- Piling up of files occupies space.
- High maintenance cost.
- Accesing data based on specific parameters is time consuming.
- Cross checking data is difficult.
- Risk of data breach.

Agency expects us to create a database to store information regarding sales, expenditure on labour and transportation, customer details, employee details, inventory of goods, company and their products with the latest selling price. This database should ensure security, easy maintenance and accessibility.

PURCHASING OF GOODS:-

Construction Iron:-

The agency is purchasing Construction Iron from two major companies namely T Steels and V Steels. The Price of Iron varies from company to company. It is purchased based on sizes(currently three)- 16mm, 12mm and 8mm(all diameters). Billing for the bulk purchase from companies is done based on the quantity of Iron bought. Although the Purchase depends on the demand but generally the purchase is around five ton weekly.

Cement:-

The agency is purchasing Cement from K Cement, J Cement, B Cement, D cement, U Cement. Price of the cement also varies from company to company and it comes in bags of 50 Kg. The purchase of Cement is more frequent than Iron. Agency purchases 250-300 bags of Cement in an interval of 2-3 days. The latest price of cement is regularly updated.

SALES:-

Construction Iron:-

It is sold msotly in discrete units. Also sometimes a customer is given Special discount if he/she are regular.

Cement:-

Along with selling the cement in bags of 50Kg.

EMPLOYEES:-

There are two tier of employees:

1. Manager:- The manager of the agency takes care of billing, transportation, supervises labour, inventory of goods present in the stock and oversees the work progress.

2. Labour and Drivers.

      Labour:- Labour does all the loading and unloading work.
      Pickup Driver:- Transports goods to the customer.

INVENTORY:-

      The stock of goods is maintained by simply adding when there is a purchase and subtracting after any sale.If there is a new lot of goods coming from any of the companies then the amount(number of bags for cement and type and number of units for iron) is added on the stock list.

Entity Sets

Company (Will contain all the information of the supplier companies)

Purchases (Will contain the information of orders made by the agency to the companies for purchasing goods)

Employees (Will have all the details of employees working)

Customer (Containing all the information about the customers purchasing from the agency)

Sales (Will have record of sales)

Inventory (will have the current stock present in the godown (kg for cement and ton for iron))

Transaction(will have info about the Transactions made for a Puchase to the company**)**

Attibutes to the Entity set:-

1. **Company:-** Company_Id(PRIMARY KEY), Name, Contact,
   Product_id (multivalue attribute).

2. **Inventory:-** Product_id(PRIMARY KEY),Current Stock,Selling Price.

3. **Purchase:-** Purch_Id(PRIMARY KEY), Order_Date,Trans
   Charges,Labour Charges.

4. **Employees:-** Employee_Id(Primary Key), Name, Contact details,
   Address.

5. **Customer:-** Cust_Id(PRIMARY KEY), Name, Contact Details,
   Address.

6. **Sales:-** Sales_id(PRIMARY KEY), Order_date,Transportation
   charges ,Labour Charges,Discount.

Tables:-

1. Company
   - Comp_Id
   - Name
   - Cont_no

2. Compro
   - Comp_Id
   - Prod_Id

3. Purchase
   - Purch_Id
   - Ord_Date
   - Trans Charges
   - Labour Charges

4. PurchPro
   - PurchId
   - Prod_id
   - Qnt_purch
   - Purch_Price

5. Inventory
   - Prod_Id
   - Current_Stock
   - Selling_Price

6. Customer
   - Cust_Id
   - Name
   - Phone_Number
   - Address

7. Sales
- Sales_Id
- Ord_Date
- Lbr_Charges
- Transportation
- Discount
- Cust_id

8. Prod_sale
- Sales_Id
- Prod_Id
- Prod_price
- Amt_Sold

9.Employees
- Emp_Id
- Name
- Cont_no.
- Address

10.Transaction
- Tran_id
- Trans_date
- Tax

11.Pays
- Trans_id
- Purch_id