Sales and Catalog Managements

classmate
Date
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DBMS Assignment 1

Entities

1) **Sales_Company**

Name [character], ID [number], Product_ID [number]

2) **Sales_Person**

Name [character], ID [number], Gender [character], D.O.B [date],
Date_of_Joining [date], Salary [number], Mgr_ID [number], Product_ID [number]

3) **Product_Catalog**

Name [character], ID [number], Description [character], Available_Quantity
[number], Made In [character], Price [number], Product_Location [character]

4) **Product_Warehouse**

Name [character], ID [number], Product_ID [number], Location [character]

5) **ProductLine_Workers**

Name [character], ID [number], Gender [character], D.O.B [date],
Date_of_Joining [date], Salary [number], Mgr_ID [number], Product_ID [number]

6) **Warehouse_Location**

Name [character], ID [number], Location [character], Product_ID [number]

7) **Transportation_Company**

Name [character], ID [number], Product_ID [number]

8) **Transportation_Drivers**

Name [character], ID [number], Gender [character], D.O.B [date], D.O.J [date]
Salary [number], Mgr_ID [number], Order_ID [number], Product_ID [number]

9) **Customers**

Name [character], ID [number], Gender [character], D.O.B [date],
Address [character], Order_ID [number]

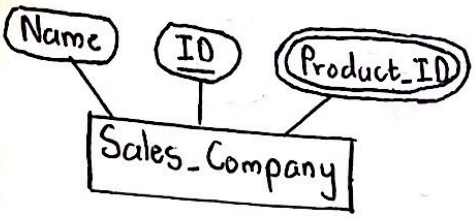
10) Customer_Orders

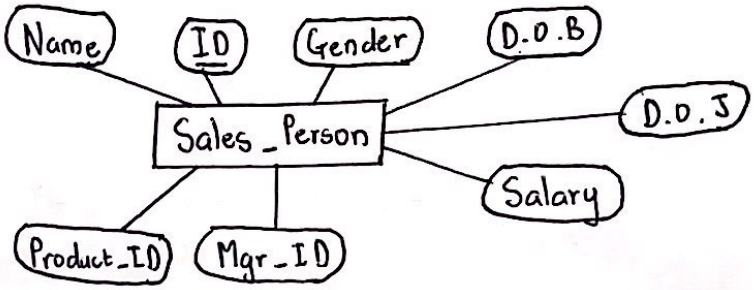
ID [number], Customer_ID [number], Product_ID [number], Quantity [number]
Order_Price [number], Dispatch_Date [date], Delivery_Date [date],
Payment_Method [character], Payment_Status [character], Delivery location [character]
Pickup location [character]

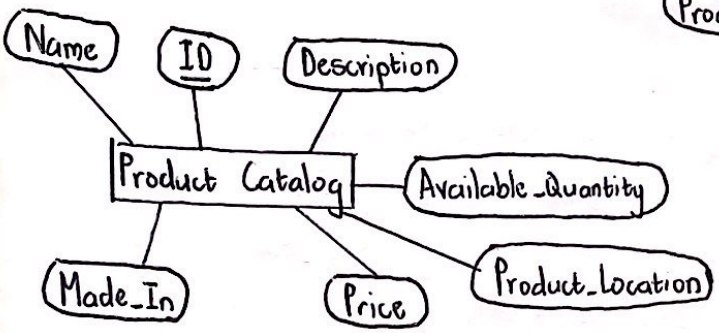
Primary Keys of Entities

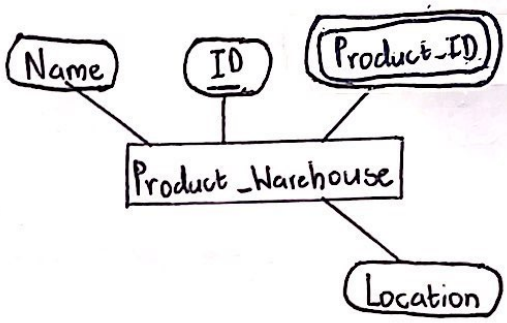
1) Sales_Company => ID
2) Sales_Person => ID
3) Product_Catalog => ID
4) Product_Warehouse => ID
5) ProductLine_Workers => ID
6) Warehouse_Location => ID
7) Transportation Company => ID
8) Transportation Drivers => ID
9) Customers => ID
10) Customer Orders => ID, Customer_ID, Product_ID

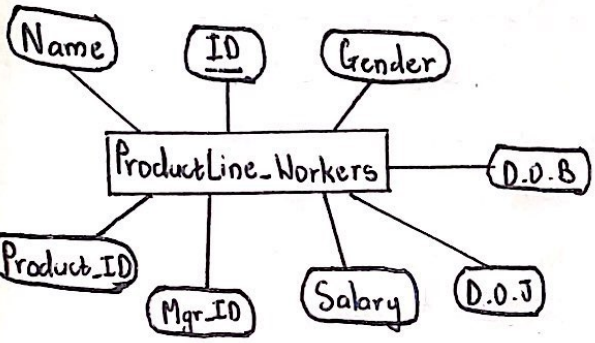
E diagram

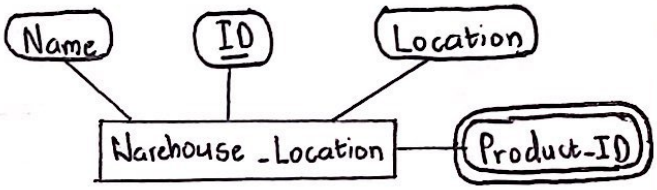


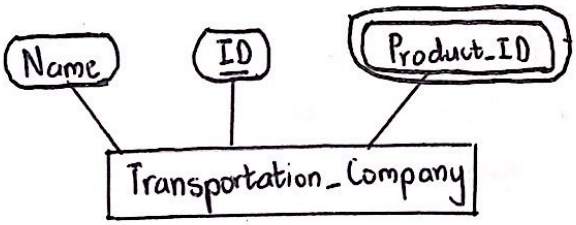


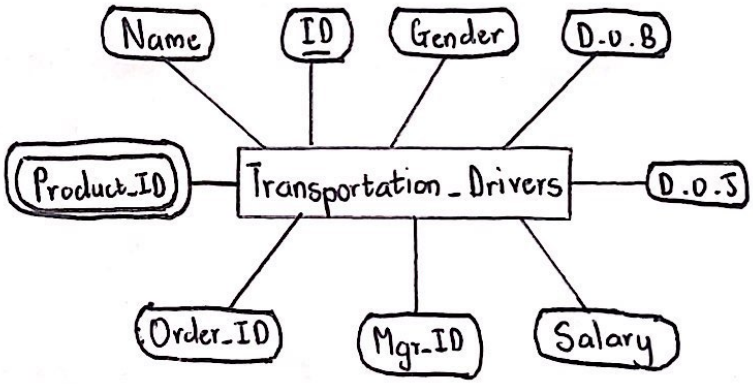


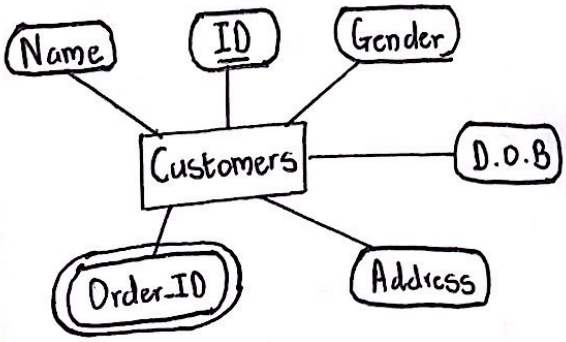


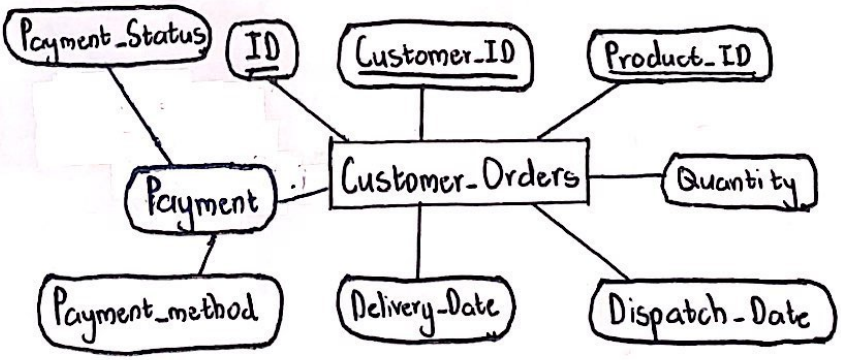










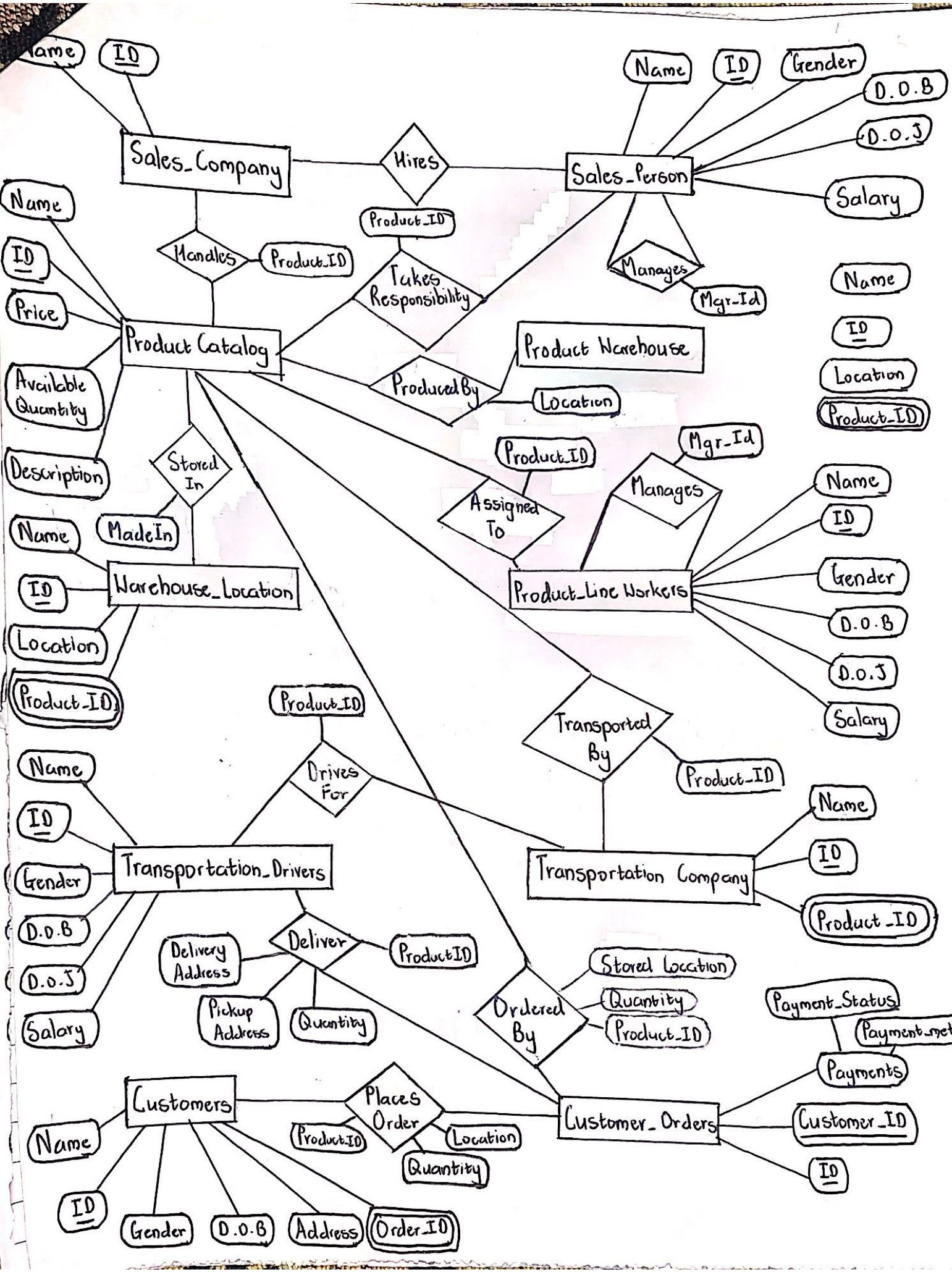


Sales and Catalog Management

DBMS Assignment 1

Relationships

1) Sales_Person works for Sales_Company
2) Sales_Company handles multiple Products with relationship attribute Product_ID.
3) Sales_Person is given responsibility of one Product with relationship attribute Product_ID.
4) Sales_Person have one manager with relationship attribute Mgr_ID
5) Product_Warehouse produces multiple Products with relationship attribute Made_In that holds location of Product_Warehouse
6) ProductLine_Workers are given responsibility of one Product with relationship attribute Product_ID.
7) ProductLine_Workers have one manager with relationship attribute Mgr_ID
8) Products are stored in Warehouse_Location with relationship attribute Stored_In that holds location of Warehouse_Location.
9) Transportation_Company transports multiple Products with relationship attribute Product_ID
10) Transportation_Company assigns each driver with multiple Products with relationship attribute Product_ID
11) Customer places Customer_Orders with relationship attribute quantity and address.
12) Customer_Orders Products with relationship attribute stored location and quantity and Product_ID
13) Transportation Drivers are given Customer_Orders with relationship attribute Delivery address, Pickup address, Product_ID and Quantity



Sales and Catalog Management

DBMS Assignment 1

Relationship constraints

1) Relationship Hires between Sales_Company (1) and Sales_Person (n) is a m:n relationship type.
2) Relationship Handles between Sales_Company (1) and Product_Catalog (n) is a m:n relationship type.
3) Relationship Takes_Responsibility between Sales_Person (m) and Product_Catalog (n) is a 1:n relationship.
4) Relationship Manages is a recursive relationship amongst Sales_Person which is a 1:n relationship.
5) Relation Stored_In between Product_Catalog (m) and Warehouse_Location (1) is a n:1 relationship.
6) Relation Produced_By between Product_Catalog (m) and Product_Warehouse (1) is a n:1 relationship.
7) Relationship Assigned_To between Product_Catalog (m) and ProductLine_Workers (n) is a m:n relationship.
8) Relationship Manages is a recursive relationship amongst ProductLine_Workers is a 1:n relationship.
9) Relationship Drives_For is between Transportation_Drivers (m) and Transportation_Company (1) is a m:1 relationship.
10) Relationship Places_Order is between Customers (1) and Customer_Orders (n) is a m:n relationship.
11) Relationship Transported_By is between Product_Catalog (m) and Transportation_Company (1) is a m:1 relationship.
12) Relationship Ordered_By is between Product_Catalog (m) and Customer_Orders (n) is a m:n relationship.
13) Relationship Deliver is between Transportation_Drivers (m) and Customer_Orders (n) is a m:n relationship.