

**DBMS ASSIGNMENT-2**

**DATE: 14-10-2021**

**PROJECT TITLE**

**SALES AND CATALOG MANAGEMENT  
SYSTEM**

**TEAM DETAILS:**

Semester : V	Section: B	Team No: 18
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## DBMS Assignment 2

## Mapping conceptual model to Relational model

## Step 1:- Mapping of Regular Entities

For each regular entity type  $E$  in the ER schema, create a relation  $R$  that includes all the simple attributes of  $E$ . We choose one of the key attributes of  $E$  as primary key for  $R$ .

All 10 entities are mapped as relations here

## Step 2:- Mapping binary 1:n relation

For each binary 1:n relation  $R$ , we identify the relation  $S$  that represent the participating entity type at the  $N$  side of the relationship with  $T$  being the at the  $1$  side. We include a primary key of  $T$  as a foreign

## (i) Takes Responsibility

1 side :- Sales\_Person

n side :- Product\_Catalog

Primary key ID added as S-ID to Product\_Catalog

## (ii) Manages

1 side :- Sales\_Person

n side :- Sales\_Person

Primary key ID added as Mgr-ID to Sales\_Person

## (iii) Stored-In

1 side :- Warehouse\_Location

n side :- Product\_Catalog

Primary key ID added as Warehouse\_ID to Product Catalog

## (iv) Produced-By

1 side :- Product\_Warehouse

n side :- Product\_Catalog

Primary key ID added as Product\_Warehouse-ID to Product Catalog

## (v) Manages

1 side :- ProductLine\_Workers

n side :- ProductLine\_Workers

Primary key ID added as Mgr-ID to ProductLine\_Workers

method



**(vi) Drives\_For**

1 side :- Transportation\_Company

n side :- Transportation\_Drivers

Primary key ID added as T\_Company\_Id with attribute Product\_ID

**(vii) Transported\_By**

1 side :- Transportation\_Company

n side :- Product Catalog

Primary key ID added as T\_Company\_Id to Product Catalog

**(viii) Hires**

1 side :- Sales\_Company

n side :- Sales\_Person

Primary key ID added as Sales\_Company\_Id to Sales\_Person

**(ix) Handles**

1 side :- Sales\_Company

n side :- Product\_Catalog

Primary key ID added as Sales\_Company\_Id to Product\_Catalog

**(x) Places Order**

1 side :- Customers

n side :- Customer\_Orders

Primary key ID added as Customer\_Id to Customer\_Orders with attributes Product\_ID, Quantity

**(xi) Ordered By**

1 side :- Product Catalog

n side :- Customer\_Orders

Primary Key ID added as Product\_ID to Customer\_Orders



### Step 3:- Mapping of Multivalued Attributes

For each multivalued attribute  $A$ , we create a new relation  $R$ .  $R$  will include an attribute corresponding to  $A$ , plus a key attribute of the relation it comes from. Primary key of  $R$  is combination of  $A$  and key is included as foreign key.

#### (i) Product\_ID

Owner Entity:- Product Warehouse

Primary Key:- ID stored as Product\_Warehouse\_ID

#### (ii) Product\_ID

Owner Entity:- Warehouse Location

Primary Key:- ID stored as Warehouse\_ID

#### (iii) Product\_ID

Owner Entity:- Transportation Company

Primary Key:- ID stored as Transportation\_Company\_ID

### Step 4:- Mapping of binary m:n relations

For each binary m:n relation, we create a relationship relation that will include primary keys of both relations participating and any attributes of relationship if present.

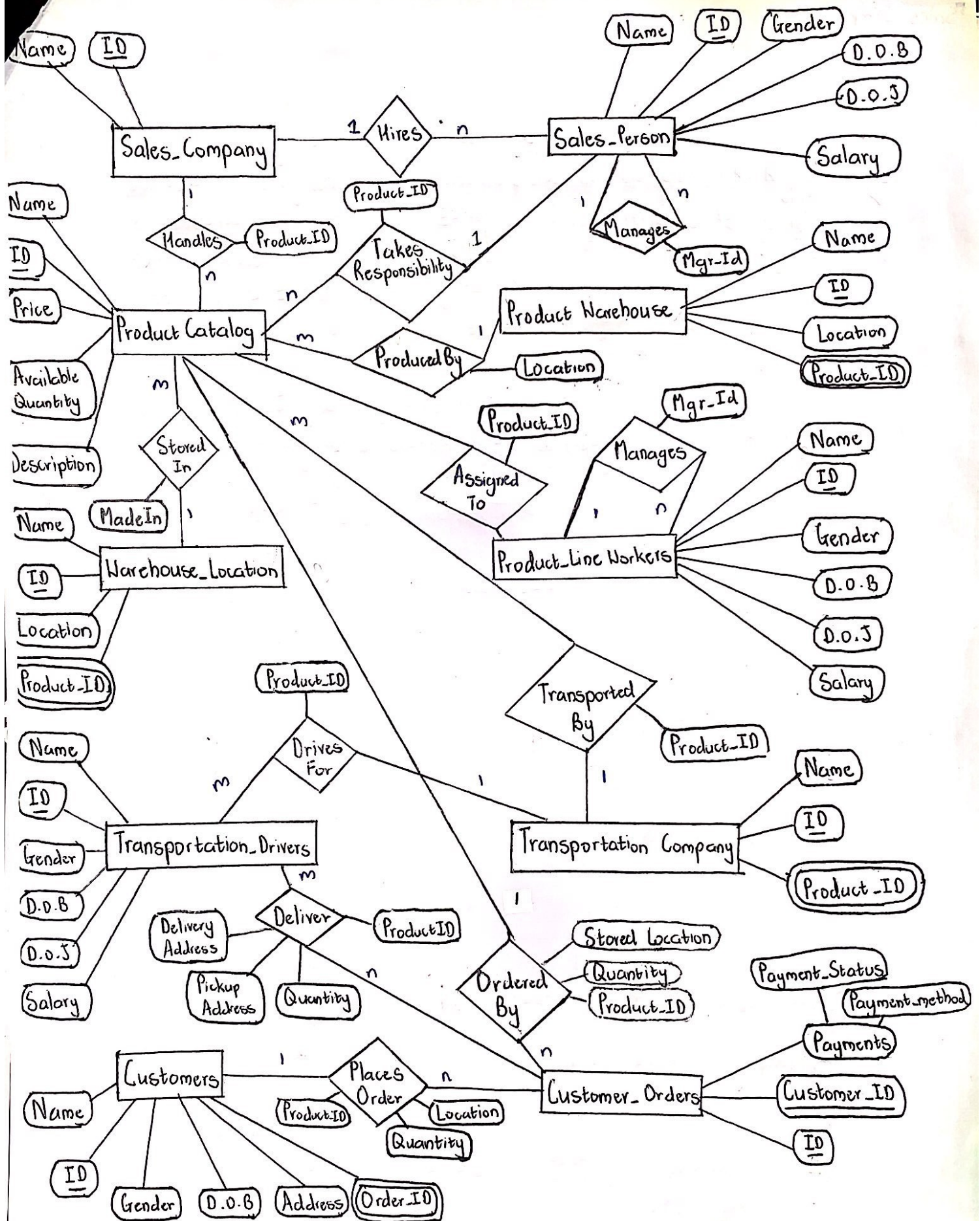
#### (i) Assigned-To

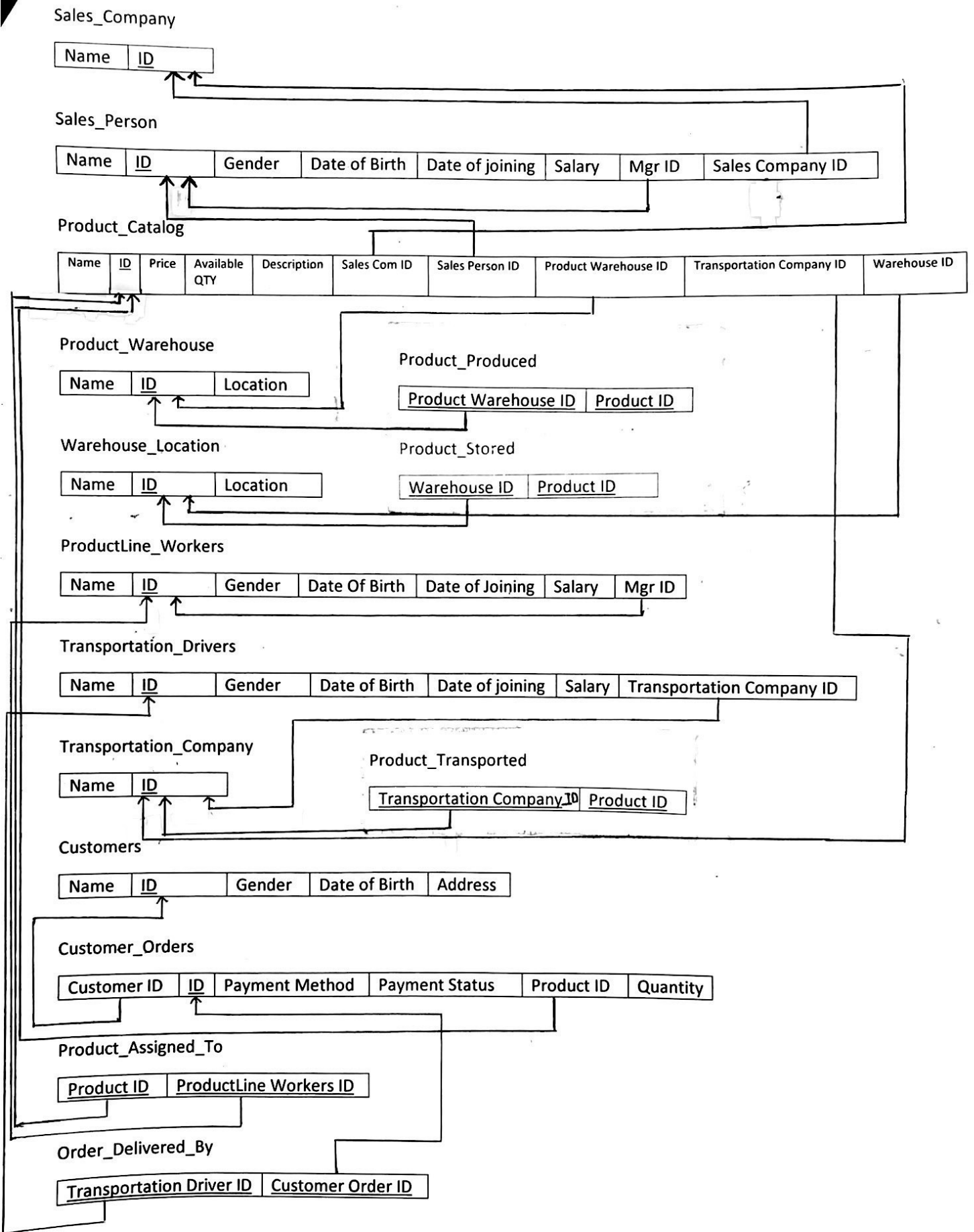
Primary keys of Product Catalog [ID] and ProductLine\_Workers [ID] are added to the new relation and combination of this is primary key.

#### (ii) Deliver

Primary keys of Transportation\_Drivers [ID] and Customer\_Orders [ID] are added to the new relation and combination of this is primary key.







## DBMS CHOSEN:

We decided to go ahead with a Relational DB System since it's easy to understand the structure/schema in the form of tables.

They are best suited for multi-row transactions.

We are going to be using PostgreSQL for our implementation.

## Reasons for Choosing PostgreSQL:

1. The complete software is free of cost while MongoDB has hosted and enterprise paid versions.
2. Object-Oriented DB system.
3. Many 3<sup>rd</sup> party service providers and has an active community.
4. Supports ACID (Atomicity, Consistency, Isolation, Durability)

## Implementation of The Database:

### Create Statements:

```
drop database if exists sales_catalog_management;  
create database sales_catalog_management;  
\c sales_catalog_management;
```

```
/* Commands for create table */
```

```
CREATE TABLE Sales_Company (  
Name varchar(255),  
ID varchar(10) not null,  
PRIMARY KEY (ID)  
);
```

```
CREATE TABLE Sales_Person (  
Name varchar(255),  
ID varchar(10) not null,  
Gender varchar(1),  
Date_of_Birth DATE,  
Date_of_joining DATE,  
Salary int,  
Mgr_ID varchar(10),  
Sales_Company_ID varchar(10),  
PRIMARY KEY (ID)  
);
```

```
CREATE TABLE Product_Catalog (  
Name varchar(255),  
ID varchar(10) not null,  
Price float,  
Available_QTY int,  
Description TEXT,
```

```

Sales_Company_ID varchar(10),
Sales_Person_ID varchar(10),
Product_Warehouse_ID varchar(10),
Transportation_Company_ID varchar(10),
Warehouse_ID varchar(10),
PRIMARY KEY (ID)
);

CREATE TABLE Product_Warehouse (
Name varchar(255),
ID varchar(10) not null,
Location TEXT,
PRIMARY KEY (ID)
);

CREATE TABLE Product_Produced (
Product_Warehouse_ID varchar(10) not null,
Product_ID varchar(10),
PRIMARY KEY (Product_Warehouse_ID, Product_ID)
);

CREATE TABLE Warehouse_Location (
Name varchar(255),
ID varchar(10) not null,
Location TEXT,
PRIMARY KEY (ID)
);

CREATE TABLE Product_Stored (
Warehouse_ID varchar(10) not null,
Product_ID varchar(10),
PRIMARY KEY (Warehouse_ID, Product_ID)
);

CREATE TABLE ProductLine_Workers (
Name varchar(255),
ID varchar(10) not null,
Gender varchar(1),
Date_of_Birth DATE,
Date_of_joining DATE,
Salary int,
Mgr_ID varchar(10),
PRIMARY KEY (ID)
);

CREATE TABLE Transportation_Drivers (
Name varchar(255),
ID varchar(10) not null,
Gender varchar(1),
Date_of_Birth DATE,
Date_of_joining DATE,

```



```

Salary int,
Transportation_Company_ID varchar(10),
PRIMARY KEY (ID)
);

CREATE TABLE Transportation_Company (
Name varchar(255),
ID varchar(10) not null,
PRIMARY KEY (ID)
);

CREATE TABLE Product_Transported (
Transportation_Company_ID varchar not null,
Product_ID varchar not null,
PRIMARY KEY (Transportation_Company_ID, Product_ID)
);

CREATE TABLE Customers (
Name varchar(255),
ID varchar not null,
Gender varchar(1),
Date_of_Birth DATE,
Address TEXT,
PRIMARY KEY (ID)
);

CREATE TABLE Customer_Orders (
Customer_ID varchar,
ID varchar not null,
Payment_Method varchar(255),
Payment_Status TEXT,
Product_ID varchar,
Quantity int,
PRIMARY KEY (ID)
);

CREATE TABLE Product_Assigned_To (
Product_ID varchar(10) not null,
ProductLine_Workers_ID varchar(10) not null,
PRIMARY KEY (Product_ID, ProductLine_Workers_ID)
);

CREATE TABLE Order_Delivered_By (
Transportation_Driver_ID varchar not null,
Customer_Order_ID varchar not null,
PRIMARY KEY (Transportation_Driver_ID, Customer_Order_ID)
);

```

## Adding Foreign Key Constrains:

```
/* Commands for adding foreign key constraints */

ALTER TABLE Sales_Person ADD CONSTRAINT fk_cid FOREIGN
KEY(Sales_Company_ID)
    REFERENCES Sales_Company(ID);
ALTER TABLE Sales_Person ADD CONSTRAINT fk_mgrssn FOREIGN KEY(Mgr_ID)
    REFERENCES Sales_Person(ID);

ALTER TABLE Product_Catalog ADD CONSTRAINT fk_cid FOREIGN
KEY(Sales_Company_ID)
    REFERENCES Sales_Company(ID);
ALTER TABLE Product_Catalog ADD CONSTRAINT fk_sid FOREIGN
KEY(Sales_Person_ID)
    REFERENCES Sales_Person(ID);
ALTER TABLE Product_Catalog ADD CONSTRAINT fk_pwid FOREIGN
KEY(Product_Warehouse_ID)
    REFERENCES Product_Warehouse(ID);
ALTER TABLE Product_Catalog ADD CONSTRAINT fk_tid FOREIGN
KEY(Transportation_Company_ID)
    REFERENCES Transportation_Company(ID);
ALTER TABLE Product_Catalog ADD CONSTRAINT fk_wid FOREIGN
KEY(Warehouse_ID)
    REFERENCES Warehouse_Location(ID);

ALTER TABLE Product_Produced ADD CONSTRAINT fk_pwid FOREIGN
KEY(Product_Warehouse_ID)
    REFERENCES Product_Warehouse(ID);

ALTER TABLE Product_Stored ADD CONSTRAINT fk_wid FOREIGN KEY(Warehouse_ID)
    REFERENCES Warehouse_Location(ID);

ALTER TABLE Transportation_Drivers ADD CONSTRAINT fk_tid FOREIGN
KEY(Transportation_Company_ID)
    REFERENCES Transportation_Company(ID);

ALTER TABLE Product_Transported ADD CONSTRAINT fk_tid FOREIGN
KEY(Transportation_Company_ID)
    REFERENCES Transportation_Company(ID);

ALTER TABLE Customer_Orders ADD CONSTRAINT fk_pid FOREIGN KEY(Product_ID)
    REFERENCES Product_Catalog(ID);
ALTER TABLE Customer_Orders ADD CONSTRAINT fk_cstid FOREIGN
KEY(Customer_ID)
    REFERENCES Customers(ID);

ALTER TABLE Product_Assigned_To ADD CONSTRAINT fk_pid FOREIGN
KEY(Product_ID)
    REFERENCES Product_Catalog(ID);
```

```

ALTER TABLE Product_Assigned_To ADD CONSTRAINT fk_prodlineid FOREIGN
KEY(ProductLine_Workers_ID)
    REFERENCES ProductLine_Workers(ID);

ALTER TABLE Order_Delivered_By ADD CONSTRAINT fk_did FOREIGN
KEY(Transportation_Driver_ID)
    REFERENCES Transportation_Drivers(ID);

ALTER TABLE Order_Delivered_By ADD CONSTRAINT coid FOREIGN
KEY(Customer_Order_ID)
    REFERENCES Customer_Orders(ID);

```

## Insert Statements:

```

/* Commands for Inserting records in each table */

INSERT INTO Sales_Company VALUES('Amway', 'sc_1');
INSERT INTO Sales_Company VALUES('Reliance Digital', 'sc_2');
INSERT INTO Sales_Company VALUES('D-Mart', 'sc_3');

INSERT INTO Sales_Person VALUES('Augustine Ronaldo', 'sp_103', 'M',
'1964-01-12', '2000-03-30', 50000, NULL, 'sc_1');
INSERT INTO Sales_Person VALUES('Amit Kumar', 'sp_101', 'M', '1984-10-12',
'2020-03-31', 20000, 'sp_103', 'sc_1');
INSERT INTO Sales_Person VALUES('Rajeev Shukhla', 'sp_102', 'M', '1980-
10-15', '2015-08-20', 30000, 'sp_103', 'sc_1');

INSERT INTO Sales_Person VALUES('Ravi Ash', 'sp_203', 'M', '1980-10-02',
'2000-07-13', 35000, NULL, 'sc_2');
INSERT INTO Sales_Person VALUES('Anushka Viswas', 'sp_202', 'F', '1980-
11-08', '2018-04-21', 25000, 'sp_203', 'sc_2');
INSERT INTO Sales_Person VALUES('Ravi Kumar', 'sp_201', 'M', '1977-11-12',
'2020-03-31', 15000, 'sp_202', 'sc_2');

INSERT INTO Sales_Person VALUES('Amanni Usha', 'sp_302', 'F', '1960-01-
07', '2010-04-01', 25000, NULL, 'sc_3');
INSERT INTO Sales_Person VALUES('Amit Kumar', 'sp_301', 'M', '1967-08-15',
'2020-03-31', 10000, 'sp_302', 'sc_3');
INSERT INTO Sales_Person VALUES('Arnab Ladwani', 'sp_303', 'M', '1997-09-
24', '2000-01-30', 15000, 'sp_302', 'sc_3');

INSERT INTO Product_Warehouse VALUES('Product Warehouse 1', 'Pware_1',
'3rd floor Revannas');
INSERT INTO Product_Warehouse VALUES('Product Warehouse 2', 'Pware_2',
'Electronic City Ph-2');
INSERT INTO Product_Warehouse VALUES('Product Warehouse 3', 'Pware_3',
'Rajajinagar');

INSERT INTO Warehouse_Location VALUES('Professional Warehouse & Storage
Services', 'ware_1', 'Mangamma Palya Rd');

```



```

INSERT INTO Warehouse_Location VALUES('North South Warehouse Storage',
'ware_2', '13th main, Begur main Rd');
INSERT INTO Warehouse_Location VALUES('SPOYL Warehouse', 'ware_3', 'Kudlu
Gate');
INSERT INTO Warehouse_Location VALUES('Professional Logistics Warehouse &
Storage', 'ware_4', 'shop no.34, 3rd floor, Mangamma Palya Rd');
INSERT INTO Warehouse_Location VALUES('CB Warehouse', 'ware_5', 'Mangamma
Palya Rd');

INSERT INTO Transportation_Company VALUES('Company A', 'tc_1');
INSERT INTO Transportation_Company VALUES('Company B', 'tc_2');
INSERT INTO Transportation_Company VALUES('Company C', 'tc_3');

INSERT INTO Product_Catalog VALUES('Glister Toothpaste', 'pc_1', 200.0,
15, 'Multi-Action Toothpaste With Herbals', 'sc_1', 'sp_103', 'Pware_1',
'tc_1', 'ware_3');
INSERT INTO Product_Catalog VALUES('Hamam Soap', 'pc_2', 100.0, 12,
'Herbal Soap', 'sc_1', 'sp_101', 'Pware_1', 'tc_1', 'ware_1');
INSERT INTO Product_Catalog VALUES('Shampoo', 'pc_3', 150.0, 25,
'Hairfall Control With Conditioner', 'sc_1', 'sp_103', 'Pware_1', 'tc_2',
'ware_1');
INSERT INTO Product_Catalog VALUES('Air pods', 'pc_4', 799.0, 5, 'Wired',
'sc_2', 'sp_201', 'Pware_2', 'tc_1', 'ware_5');
INSERT INTO Product_Catalog VALUES('Nutrilite', 'pc_5', 1735.0, 25,
'Multivitamin and Multimineral Tablets', 'sc_1', 'sp_101', 'Pware_1',
'tc_1', 'ware_4');
INSERT INTO Product_Catalog VALUES('Duracell', 'pc_6', 75.0, 500, 'AAA
batteries', 'sc_2', 'sp_203', 'Pware_2', 'tc_3', 'ware_3');
INSERT INTO Product_Catalog VALUES('Rice', 'pc_7', 102.0, 12, 'Red rice
(1 qty = 2Kg Sac)', 'sc_3', 'sp_301', 'Pware_3', 'tc_2', 'ware_4');
INSERT INTO Product_Catalog VALUES('Cereal', 'pc_8', 200.0, 7, 'Breakfast
Cereal Protein & Fiber', 'sc_3', 'sp_303', 'Pware_3', 'tc_3', 'ware_3');
INSERT INTO Product_Catalog VALUES('Laptop PC', 'pc_9', 74999.0, 8, 'HP
Envy Ryzen 5', 'sc_2', 'sp_202', 'Pware_2', 'tc_2', 'ware_4');
INSERT INTO Product_Catalog VALUES('Apples', 'pc_10', 359.0, 9, 'Kashmiri
Fresh Fruit Apples (1 qty = 2 apples)', 'sc_3', 'sp_303', 'Pware_3',
'tc_3', 'ware_5');

INSERT INTO Product_Transported VALUES('tc_1', 'pc_1');
INSERT INTO Product_Transported VALUES('tc_1', 'pc_2');
INSERT INTO Product_Transported VALUES('tc_1', 'pc_4');

INSERT INTO Product_Transported VALUES('tc_2', 'pc_7');
INSERT INTO Product_Transported VALUES('tc_2', 'pc_9');

INSERT INTO Product_Transported VALUES('tc_3', 'pc_6');
INSERT INTO Product_Transported VALUES('tc_3', 'pc_10');

INSERT INTO Product_Produced VALUES('Pware_1', 'pc_1');
INSERT INTO Product_Produced VALUES('Pware_1', 'pc_2');
INSERT INTO Product_Produced VALUES('Pware_1', 'pc_3');

```

```

INSERT INTO Product_Produced VALUES('Pware_2','pc_4');
INSERT INTO Product_Produced VALUES('Pware_1','pc_5');
INSERT INTO Product_Produced VALUES('Pware_2','pc_6');
INSERT INTO Product_Produced VALUES('Pware_3','pc_7');
INSERT INTO Product_Produced VALUES('Pware_3','pc_8');
INSERT INTO Product_Produced VALUES('Pware_2','pc_9');
INSERT INTO Product_Produced VALUES('Pware_3','pc_10');

INSERT INTO Product_Stored VALUES('ware_1','pc_1');
INSERT INTO Product_Stored VALUES('ware_1','pc_2');
INSERT INTO Product_Stored VALUES('ware_1','pc_3');
INSERT INTO Product_Stored VALUES('ware_5','pc_4');
INSERT INTO Product_Stored VALUES('ware_4','pc_5');
INSERT INTO Product_Stored VALUES('ware_3','pc_6');
INSERT INTO Product_Stored VALUES('ware_3','pc_7');
INSERT INTO Product_Stored VALUES('ware_3','pc_8');
INSERT INTO Product_Stored VALUES('ware_4','pc_9');
INSERT INTO Product_Stored VALUES('ware_5','pc_10');

INSERT INTO ProductLine_Workers VALUES('Koothrapalli', 'w_2','M', '1984-12-08', '2008-03-31', 80000, NULL);
INSERT INTO ProductLine_Workers VALUES('Rajesh S', 'w_1','M', '1984-10-08', '2021-03-31', 8000, 'w_2');
INSERT INTO ProductLine_Workers VALUES('Rakesh', 'w_3','M', '1980-12-15', '2011-07-14', 7500, 'w_2');
INSERT INTO ProductLine_Workers VALUES('Shyam Sundar', 'w_6','M', '1964-11-27', '2000-03-31', 6000000, NULL);
INSERT INTO ProductLine_Workers VALUES('Ferrha', 'w_5','F', '1994-09-07', '2020-03-17', 9000, 'w_6');
INSERT INTO ProductLine_Workers VALUES('Sheela Jhunjhunwala', 'w_4','F', '1988-05-09', '2017-09-27', 80000, 'w_5');
INSERT INTO ProductLine_Workers VALUES('Manjrekar', 'w_9','M', '1965-07-12', '1987-12-15', 2000, NULL);
INSERT INTO ProductLine_Workers VALUES('Alia', 'w_8','F', '1954-06-11', '1972-03-31', 100000, 'w_9');
INSERT INTO ProductLine_Workers VALUES('Shilpa', 'w_7','F', '1991-01-04', '2021-02-15', 12000, 'w_8');

INSERT INTO Transportation_Drivers VALUES('Kumar', 'td_1', 'M', '1984-10-12', '2020-03-31', 20000, 'tc_1');
INSERT INTO Transportation_Drivers VALUES('Shukhla', 'td_2', 'M', '1980-10-15', '2015-08-20', 30000, 'tc_2');
INSERT INTO Transportation_Drivers VALUES('Shreya', 'td_3', 'F', '1964-01-12', '2000-03-30', 50000, 'tc_1');
INSERT INTO Transportation_Drivers VALUES('Ravi', 'td_4', 'M', '1977-11-12', '2020-03-31', 15000, 'tc_3');
INSERT INTO Transportation_Drivers VALUES('Anushka', 'td_5', 'F', '1980-11-08', '2018-04-21', 25000, 'tc_2');
INSERT INTO Transportation_Drivers VALUES('Ash', 'td_6', 'M', '1980-10-02', '2000-07-13', 35000, 'tc_1');

```

```

INSERT INTO Transportation_Drivers VALUES('Amit Kumar', 'td_7', 'M',
'1967-08-15', '2020-03-31', 10000, 'tc_1');
INSERT INTO Transportation_Drivers VALUES('Aman', 'td_8', 'M', '1960-01-
07', '2010-04-01', 25000, 'tc_2');
INSERT INTO Transportation_Drivers VALUES('Arnab', 'td_9', 'M', '1997-09-
24', '2000-01-30', 15000, 'tc_3');

INSERT INTO Product_Assigned_To VALUES('pc_1','w_1');
INSERT INTO Product_Assigned_To VALUES('pc_1','w_2');
INSERT INTO Product_Assigned_To VALUES('pc_2','w_1');
INSERT INTO Product_Assigned_To VALUES('pc_3','w_3');
INSERT INTO Product_Assigned_To VALUES('pc_3','w_2');
INSERT INTO Product_Assigned_To VALUES('pc_4','w_5');
INSERT INTO Product_Assigned_To VALUES('pc_5','w_2');
INSERT INTO Product_Assigned_To VALUES('pc_5','w_4');
INSERT INTO Product_Assigned_To VALUES('pc_6','w_7');
INSERT INTO Product_Assigned_To VALUES('pc_7','w_7');
INSERT INTO Product_Assigned_To VALUES('pc_8','w_5');
INSERT INTO Product_Assigned_To VALUES('pc_8','w_8');
INSERT INTO Product_Assigned_To VALUES('pc_9','w_5');
INSERT INTO Product_Assigned_To VALUES('pc_9','w_8');
INSERT INTO Product_Assigned_To VALUES('pc_10','w_2');
INSERT INTO Product_Assigned_To VALUES('pc_10','w_4');

INSERT INTO Customers (
Name ,ID ,Gender ,Date_of_Birth, Address
) VALUES('A','cus_1','M','2021-10-01','ban_1');
INSERT INTO Customers (
Name ,ID ,Gender ,Date_of_Birth, Address
) VALUES('B','cus_2','M','2021-10-02','ban_2');
INSERT INTO Customers (
Name ,ID ,Gender ,Date_of_Birth, Address
) VALUES('C','cus_3','M','2021-10-03','ban_3');
INSERT INTO Customers (
Name ,ID ,Gender ,Date_of_Birth, Address
) VALUES('D','cus_4','F','2021-10-04','ban_4');
INSERT INTO Customers (
Name ,ID ,Gender ,Date_of_Birth, Address
) VALUES('E','cus_5','F','2021-10-05','ban_5');

INSERT INTO Customer_Orders (
Customer_ID ,ID ,Payment_Method ,Payment_Status ,Product_ID ,Quantity )
VALUES('cus_1', 'co_1', 'cash', 'success', 'pc_1',1);
INSERT INTO Customer_Orders (
Customer_ID ,ID ,Payment_Method ,Payment_Status ,Product_ID ,Quantity )
VALUES('cus_1', 'co_2', 'cash', 'success', 'pc_2',1);
INSERT INTO Customer_Orders (
Customer_ID ,ID ,Payment_Method ,Payment_Status ,Product_ID ,Quantity )
VALUES('cus_2', 'co_3', 'cc', 'success', 'pc_1',2);
INSERT INTO Customer_Orders (

```



```

Customer_ID ,ID ,Payment_Method ,Payment_Status ,Product_ID ,Quantity )
VALUES('cus_3','co_4','cc','success','pc_4',2);
INSERT INTO Customer_Orders (
Customer_ID ,ID ,Payment_Method ,Payment_Status ,Product_ID ,Quantity )
VALUES('cus_3','co_5','cc','success','pc_2',1);
INSERT INTO Customer_Orders (
Customer_ID ,ID ,Payment_Method ,Payment_Status ,Product_ID ,Quantity )
VALUES('cus_3','co_6','cash','pending','pc_6',3);
INSERT INTO Customer_Orders (
Customer_ID ,ID ,Payment_Method ,Payment_Status ,Product_ID ,Quantity )
VALUES('cus_4','co_7','dc','success','pc_7',2);
INSERT INTO Customer_Orders (
Customer_ID ,ID ,Payment_Method ,Payment_Status ,Product_ID ,Quantity )
VALUES('cus_5','co_8','dc','success','pc_4',1);
INSERT INTO Customer_Orders (
Customer_ID ,ID ,Payment_Method ,Payment_Status ,Product_ID ,Quantity )
VALUES('cus_5','co_9','cash','success','pc_9',1);
INSERT INTO Customer_Orders (
Customer_ID ,ID ,Payment_Method ,Payment_Status ,Product_ID ,Quantity )
VALUES('cus_5','co_10','cash','success','pc_10',2);

INSERT INTO Order_Delivered_By (
Transportation_Driver_ID, Customer_Order_ID
) VALUES('td_1','co_1');
INSERT INTO Order_Delivered_By (
Transportation_Driver_ID, Customer_Order_ID
) VALUES('td_1','co_2');
INSERT INTO Order_Delivered_By (
Transportation_Driver_ID, Customer_Order_ID
) VALUES('td_3','co_3');
INSERT INTO Order_Delivered_By (
Transportation_Driver_ID, Customer_Order_ID
) VALUES('td_3','co_4');
INSERT INTO Order_Delivered_By (
Transportation_Driver_ID, Customer_Order_ID
) VALUES('td_5','co_5');
INSERT INTO Order_Delivered_By (
Transportation_Driver_ID, Customer_Order_ID
) VALUES('td_6','co_6');
INSERT INTO Order_Delivered_By (
Transportation_Driver_ID,
Customer_Order_ID) VALUES('td_7','co_7');
INSERT INTO Order_Delivered_By (
Transportation_Driver_ID, Customer_Order_ID
) VALUES('td_8','co_8');
INSERT INTO Order_Delivered_By (
Transportation_Driver_ID, Customer_Order_ID
) VALUES('td_9','co_9');
INSERT INTO Order_Delivered_By (
Transportation_Driver_ID, Customer_Order_ID

```

```
) VALUES('td_9','co_10');
```

### **Contributions:**

Bhargav Narayanan P : CREATE Statements, INSERT Statements, Integrated Final code, Drafted Document (5 hours)

Gourav Aravinda : Stepwise mapping of Conceptual to Relational Model, Relationship Schema Diagram (3 hours)

Ashish Uphadya: Foreign Key Constraints, INSERT Statements (3 hours)