

# **DEPARTMENT OF INFORMATION TECHNOLOGY**



## **DATABASE MANAGEMENT SYSTEM**

**(IT-202)**

### **LAB FILE**

#### **SUBMITTED TO:**

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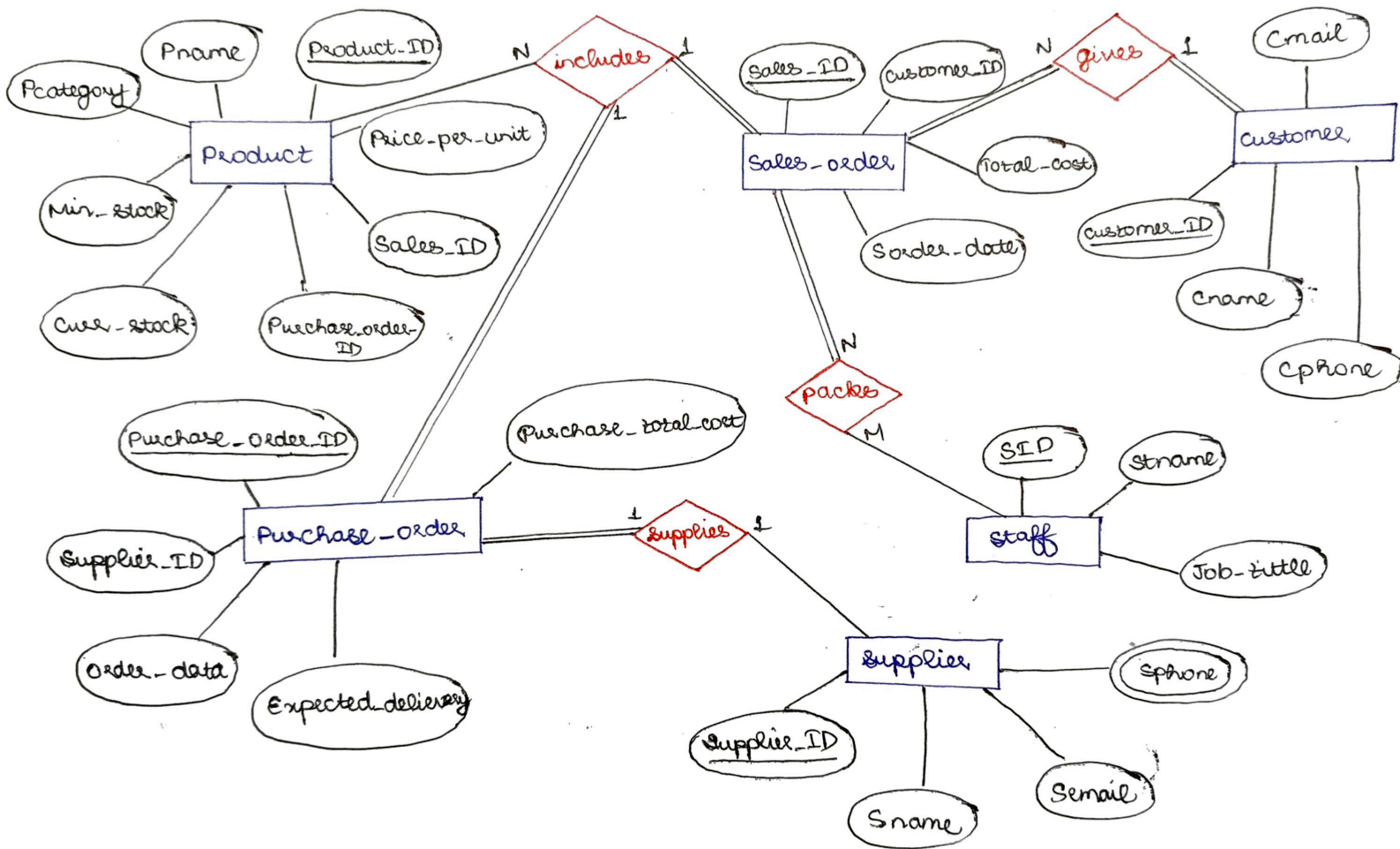
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## **PROBLEM STATEMENT:**

A grocery store is facing challenges in managing their inventory, purchase orders, and sales due to the inefficiencies and errors associated with manual systems. Therefore, there is a need for a Grocery Stock Management System using DBMS that can automate the process of managing inventory, purchasing, and sales. The system stores the details of Product which can be characterised by Product ID, name, category, price per unit etc. The Product is supplied by a Supplier (Supplier ID, name, phone number, email ID ) who receives an Order identified by Order ID, Order date, expected delivery date, total order cost. The other entities include customer (customer ID, name, phone number, email) , sales order (order ID, order date, total cost) and staff (staff ID, name, phone number, email ID).

## ER DIAGRAM :



## **SCHEMA :**

### **PRODUCT**

<u>Product_ID</u>	Pname	Pcategory	Curr_stock	Min_stock	Price_per_unit	Purchase_order_ID	Sales_ID
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### **SUPPLIER**

<u>Supplier_ID</u>	Sname	Semail	Sphone
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### **PURCHASE\_ORDER**

<u>Purchase_order_ID</u>	Supplier_ID	Order_date	Expected_delievery	Purchase_total_cost
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### **SALES\_ORDER**

<u>Sales_ID</u>	Sales_total	Sales_order_Date	Customer_ID
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### **CUSTOMER**

<u>Customer_ID</u>	Cname	Cphone	Cmail
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### **STAFF**

<u>SID</u>	Sname	Job_title
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### **PACKS**

<u>Sales_ID</u>	<u>SID</u>
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## POPULATED TABLES :

### PRODUCT

<u>Product_ID</u>	Pname	Pcategory	Curr_stock	Min_stock	Price_per_unit	Purchase_order_ID	Sales_ID
923841	Oreo	Biscuit	500	50	10	38918	76895
298719	Lays	Munchies	400	40	20	89127	45398
291881	Bourbon	Biscuit	500	50	30	21989	45343
287382	Maggi	InstantFood	300	30	14	32719	76895
239481	Tide	Detergent	200	20	58	29198	98187
928192	Kurkure	Munchies	500	50	20	29173	76895
912898	Banana	Fruits	360	36	60	87463	98187
912828	Egg	Dairy	360	36	8	12877	45343
238901	Sprite	ColdDrink	200	20	40	21871	76895
400192	Closeup	Toothpaste	100	10	100	82711	98187
782139	Dettol	Soap	200	20	60	28711	98187
982133	Kissan	Ketchup	200	20	110	71787	45398

### PURCHASE\_ORDER

<u>Purchase_order_ID</u>	Supplier_ID	Order_date	Expected_delievery	Purchase_total_cost
38918	41897891	2023-02-11	2023-02-13	10000
89127	41897891	2023-02-10	2023-02-12	25000
21989	41897891	2023-02-16	2023-02-18	30000
32719	41897891	2023-02-15	2023-02-17	28000
29173	41897891	2023-02-09	2023-02-11	50000
29173	41897891	2023-02-20	2023-02-22	35000
87463	41897891	2023-03-01	2023-03-03	40000
12877	41897891	2023-02-28	2023-03-02	45000
21871	41897891	2023-03-03	2023-03-05	25000
82711	41897891	2023-02-12	2023-02-14	60000
28711	41897891	2023-03-02	2023-03-04	55000
71787	41897891	2023-02-19	2023-02-21	45000

### SALES\_ORDER

<u>Sales_ID</u>	Sales_total	Sales_order_Date	Customer_ID
76895	1500	15/02/2023	18768
45398	400	18/02/2023	12178
98187	800	12/02/2023	71868
45343	1800	28/02/2023	78382

## SUPPLIER

<u>Supplier_ID</u>	Sname	Semail	Sphone
41897891	Agrawal	<a href="mailto:agrawalsupplies1234@gmail.com">agrawalsupplies1234@gmail.com</a>	8791567122

## STAFF

<u>SID</u>	Sname	Job_tittle
1827678	Rugung	Worker
8718782	Ritik	Worker
1897891	Rajnish	Worker
8123789	Rishabh	Worker
8231979	Anushka	Manager
3218738	Suresh	Guard
8171783	Ramesh	Guard

## PACKS

<u>Sales_ID</u>	<u>SID</u>
76895	1827678
45398	8718782
98187	1897891
45343	8123789

## CUSTOMER

<u>Customer_ID</u>	Cname	Cphone	Cmail
18768	Umesh	9356723672	<a href="mailto:umesh12@gmail.com">umesh12@gmail.com</a>
12178	Ayushi	8717617162	<a href="mailto:ayushi569@gmail.com">ayushi569@gmail.com</a>
71868	Ashutosh	9712678171	<a href="mailto:ashu1234@gmail.com">ashu1234@gmail.com</a>
78382	Shiya	9178618677	<a href="mailto:shiya143@gmail.com">shiya143@gmail.com</a>

## QUERIES :

1) Details of product ordered by Ayushi.

QUERY:

```
select * from product,sales_order as S,customer as C
where Cname="Ayushi" and S.Customer_ID = C.Customer_id and
S.Sales_ID=Product.Sales_ID;
```

OUTPUT:

[illegible]

2) Customer who has maximum order value.

QUERY:

```
select * from customer as C,Sales_order as S
where Sales_total=(select max(sales_total) from sales_order) and
C.Customer_ID=S.Customer_ID;
```

OUTPUT:

[illegible]

3) Count of order packed by Ritik.

QUERY:

```
select count(*) from staff,packs,sales_order
where Stname="Ritik" and staff.SID=packs.SID and
packs.sales_id=sales_order.sales_id;
```

OUTPUT:

	count(*)
▶ 1	

Result 3

4) Staff who has not packed any order.

QUERY:

```
SELECT Sname, Job_title
FROM staff
WHERE (Sname, Job_title) NOT IN (
    SELECT Sname, Job_title
    FROM staff
    INNER JOIN packs ON staff.SID = packs.SID
    INNER JOIN sales_order ON sales_order.sales_ID = packs.sales_ID
);
```

OUTPUT:

	Sname	Job_title	
▶	Suresh	Guard	
■	Ramesh	Guard	
	Anushka	Manager	

staff 1

5) Details of products in purchase order 32719.

QUERY:

```
select * from product where purchase_order_id="32719";
```

OUTPUT:



