COSMETICS COMPANY

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1. Introduction :

Project is to computerize **cosmetic company** data to manage data,so that it will be easy to handle data of customer buying products online of different brands. The cosmetic company covers a wide range of products from cosmetics to skin care and everything in between. This includes colour cosmetics, like foundations, skincare such as moisturisers and cleansers. Haircare such has shampoos, conditioners. It keeps record of all products and brands,customers,orders,sales on monthly basis. To ensure 100% successful implementation of day to day business.

Our database has 4 modules of month of March 2023. First module consist of all products including brand name which company have. Second module consist of orders details. Third module consist of customer details. And last module consist of sales which represents the total sale of the product in that particular month.

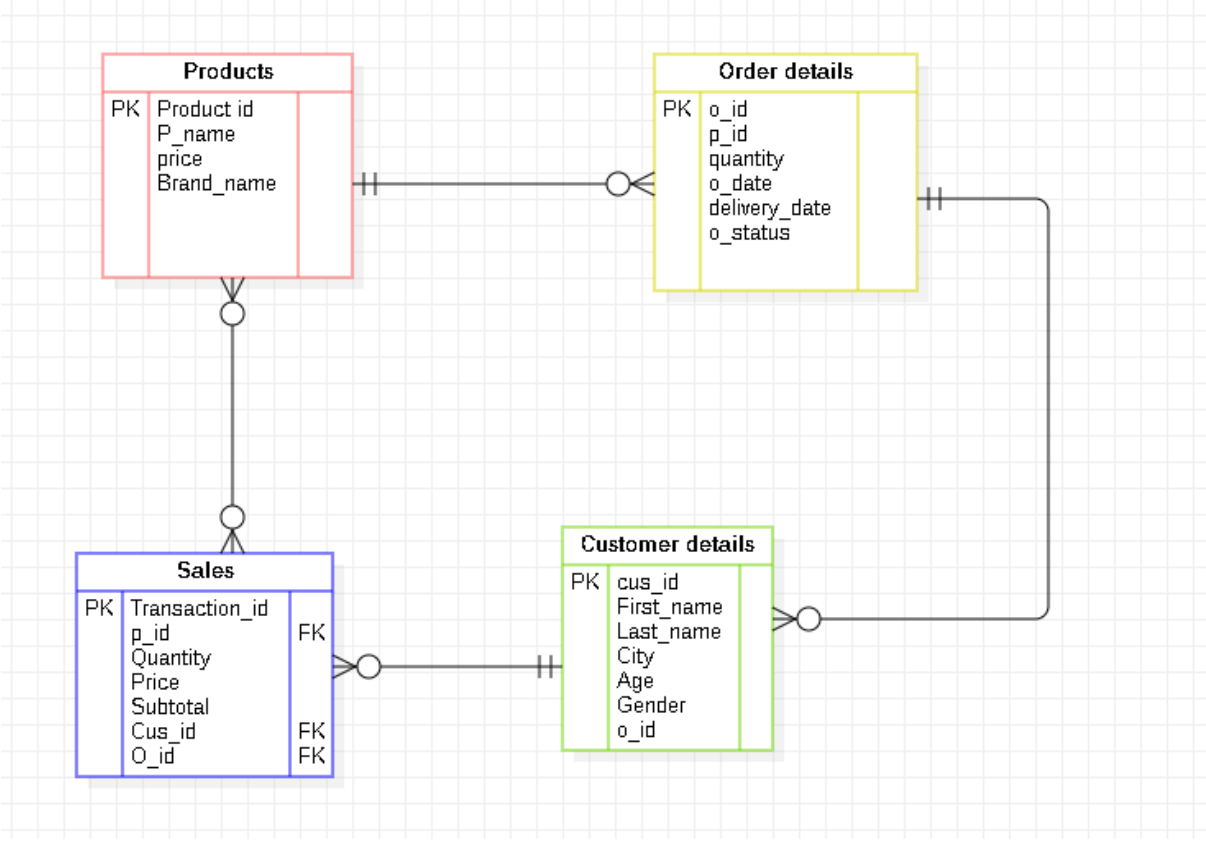
The company has 3 popular brands which is 'Lakme', 'Loreal','Sugar' each brand has its own unique identity we have various beauty products of this brands which has unique id.

With the help of sales and order modules we come to know which brand and which product is more in demand with the help of maximum orders and sales from different parts of the world.

Beyond the products themselves, the cosmetics business also includes the way in which products are sold. In particular, price points and the places products are packaged and sold. Price points have always varied, but packaging has also become very important. Where products sell has gone from physical stores that were very location driven, to being sold over the internet to people all over the world.

Many more brands and products will be introduced soon by the cosmetic company once existing brand get the boost to the business.

2. *ER Diagram*

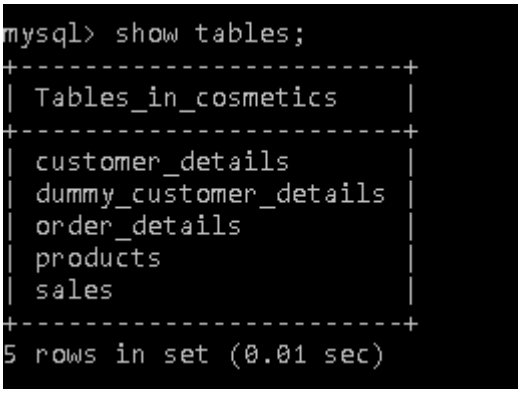

Products
PK
Product id
P_name
price
Brand_name
Order details
PK
o_id
p_id
quantity
o_date
delivery_date
o_status
Sales
PK
Transaction_id
p_id
FK
Quantity
Price
Subtotal
Cus_id
FK
O_id
FK
Customer details
PK
cus_id
First_name
Last_name
City
Age
Gender
o_id

3. Database and Tables

Database: **Cosmetics Company**

Tables:

- Products
- Orders
- Customer Details
- Sales
- Dummy_customer_details



*4. **Data Definition language (DDL)***

a). **Creating Table**

- **Products**

```
mysql> Create table Products (
    -> p_id int primary key,
    -> p_name varchar(70),
    -> price decimal(10,6),
    -> brand_name varchar(100));
Query OK, 0 rows affected (0.59 sec)

mysql>
```

```
mysql> desc products;
+------------+---------------+------+-----+---------+-------+
| Field      | Type          | Null | Key | Default | Extra |
+------------+---------------+------+-----+---------+-------+
| p_id       | int           | NO   | PRI | NULL    |       |
| p_name     | varchar(70)   | YES  |     | NULL    |       |
| price      | decimal(10,6) | YES  |     | NULL    |       |
| brand_name | varchar(100)  | YES  |     | NULL    |       |
+------------+---------------+------+-----+---------+-------+
4 rows in set (1.30 sec)
```

- **Orders**

```
mysql> create table orders (
    -> o_id int primary key,
    -> quantity int,
    -> O_date datetime,
    -> Delivery_date datetime,
    -> O_status varchar(20),
    -> p_id int,
    -> Foreign key(p_id) references products(p_id));
Query OK, 0 rows affected (0.45 sec)
```

```
mysql> desc orders;
+---------------+-------------+------+-----+---------+-------+
| Field         | Type        | Null | Key | Default | Extra |
+---------------+-------------+------+-----+---------+-------+
| o_id          | int         | NO   | PRI | NULL    |       |
| quantity      | int         | YES  |     | NULL    |       |
| O_date        | datetime    | YES  |     | NULL    |       |
| Delivery_date | datetime    | YES  |     | NULL    |       |
| O_status      | varchar(20) | YES  |     | NULL    |       |
| p_id          | int         | YES  | MUL | NULL    |       |
+---------------+-------------+------+-----+---------+-------+
6 rows in set (0.01 sec)
```

➢ Customer Details

```
mysql> create table customer_details (
    -> cus_id int primary key,
    -> first_name varchar(50) Not null,
    -> last_name varchar(50),
    -> City varchar (50) Not Null,
    -> Gender varchar(50) Not null,
    -> o_id int Not null);
Query OK, 0 rows affected (0.31 sec)
```

```
mysql> desc customer_details;
+------------+-------------+------+-----+---------+-------+
| Field      | Type        | Null | Key | Default | Extra |
+------------+-------------+------+-----+---------+-------+
| cus_id     | int         | NO   | PRI | NULL    |       |
| first_name | varchar(50) | NO   |     | NULL    |       |
| last_name  | varchar(50) | YES  |     | NULL    |       |
| City       | varchar(50) | NO   |     | NULL    |       |
| Gender     | varchar(50) | NO   |     | NULL    |       |
| o_id       | int         | NO   |     | NULL    |       |
+------------+-------------+------+-----+---------+-------+
6 rows in set (0.01 sec)
```

➢ Sales

```
mysql> create table sales (
    ->  transaction_id int primary key,
    ->  p_id int,
    ->  quantity int,
    ->  price int,
    -> subtotal int,
    ->  cus_id int,
    -> O_id int,
    -> Foreign key(p_id)references products(p_id),
    -> Foreign key(cus_id)references customer_details(cus_id),
    -> Foreign key(o_id)references order_details(o_id));
Query OK, 0 rows affected (0.49 sec)
```

```
mysql> desc sales;
+----------------+------+------+-----+---------+-------+
| Field          | Type | Null | Key | Default | Extra |
+----------------+------+------+-----+---------+-------+
| transaction_id | int  | NO   | PRI | NULL    |       |
| p_id           | int  | YES  | MUL | NULL    |       |
| quantity       | int  | YES  |     | NULL    |       |
| price          | int  | YES  |     | NULL    |       |
| subtotal       | int  | YES  |     | NULL    |       |
| cus_id         | int  | YES  | MUL | NULL    |       |
| O_id           | int  | YES  | MUL | NULL    |       |
+----------------+------+------+-----+---------+-------+
7 rows in set (0.01 sec)
```

➢ dummy_customer_Details

```
mysql> create table dummy_customer_Details(cus_id int primary key,C_Name varchar(40),city varchar(40),Gender varchar(40),o_id int);
Query OK, 0 rows affected (1.45 sec)
```

```
mysql> desc dummy_customer_details;
+--------+-------------+------+-----+---------+-------+
| Field  | Type        | Null | Key | Default | Extra |
+--------+-------------+------+-----+---------+-------+
| cus_id | int         | NO   | PRI | NULL    |       |
| C_Name | varchar(40) | YES  |     | NULL    |       |
| city   | varchar(40) | YES  |     | NULL    |       |
| Gender | varchar(40) | YES  |     | NULL    |       |
| o_id   | int         | YES  |     | NULL    |       |
+--------+-------------+------+-----+---------+-------+
5 rows in set (0.01 sec)
```

A) ***Alter Table***

a. Add column:

```
mysql> /*Alter Query*/
mysql> alter table orders add p_id int after o_id;
Query OK, 0 rows affected (1.26 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

b. Modify column:

```
mysql> alter table orders
    -> modify o_date date;
Query OK, 0 rows affected (1.45 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

c. Rename column:

```
mysql> /*change column name*/
mysql> alter table customer_details change c_mob Mobile_number int;
Query OK, 0 rows affected (0.23 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

d. Drop column:

```
mysql> /*Drop column*/
mysql> Alter table customer_details drop Mobile_number;
Query OK, 0 rows affected (0.31 sec)
Records: 0  Duplicates: 0  Warnings: 0
```

B) Rename Table

```
mysql> /*Rename table name*/
mysql> alter table orders
    -> rename order_details;
Query OK, 0 rows affected (0.43 sec)
```

C) Truncate Table

```
mysql> truncate dummy_customer_details;
Query OK, 0 rows affected (0.40 sec)
```

D) Drop Table

```
mysql> drop table dummy_customer_Details;
Query OK, 0 rows affected (0.27 sec)
```

5. Data Manipulation language (DML)

a. Insert into tables:

```
mysql> /*Insert Query*/
mysql> Insert into order_details values (101,1,2,'2023-03-10','2023-03-15','delivered');
Query OK, 1 row affected (0.21 sec)
```

```
mysql> insert into products values (1,'facewash',80,'lakme'),(2,'face serum',110,'Loreal'),(3,'body serum',200,'Loreal'),(4,'foundation',100,'sugar'),(5,'Moisturizer',2
50,'Lakme'),(6,'Shampoo',300,'Loreal'),(7,'conditioner',350,'Loreal'),(8,'face Mask',250,'lakme'),(9,'sunscreen',500,'sugar'),(10,'Perfume',600,'Loreal');
Query OK, 10 rows affected (0.12 sec)
Records: 10  Duplicates: 0  Warnings: 0
```

```
mysql> insert into customer_Details values (11,'John','Doe','Mumbai','Male',101),(12,'Mary','Smith','Mumbai','Female',102),(13,'Priya','Dewangan','Mumbai','Female',103
);
Query OK, 3 rows affected (0.10 sec)
Records: 3  Duplicates: 0  Warnings: 0
```

```
mysql> insert into sales (transaction_id,p_id,quantity,price,cus_id,o_id) values(1101,1,2,80,11,101),(1103,10,2,600,12,103),(1104,10,4,600,14,104),(1105,9,1,500,15,105)
,(1106,4,2,100,16,106),(1107,7,1,350,17,108);
Query OK, 6 rows affected (0.08 sec)
Records: 6  Duplicates: 0  Warnings: 0
```

b. Update into tables:

```
mysql> /*update query*/
mysql> update order_Details
    -> set delivery_Date='2023-03-29'
    -> where o_status= 'order_placed';
Query OK, 3 rows affected (0.17 sec)
Rows matched: 3  Changed: 3  Warnings: 0
```

```
mysql> select * from order_details;
+------+------+----------+------------+---------------+--------------+
| o_id | p_id | quantity | o_date     | Delivery_date | O_status     |
+------+------+----------+------------+---------------+--------------+
|  101 |    1 |        2 | 2023-03-10 | 2023-03-15    | delivered    |
|  102 |    5 |        4 | 2023-03-10 | 2023-03-17    | delivered    |
|  103 |   10 |        2 | 2023-03-10 | 2023-03-17    | pending      |
|  104 |   10 |        1 | 2023-03-10 | 2023-03-20    | pending      |
|  105 |    9 |        1 | 2023-03-12 | 2023-03-29    | order_placed |
|  106 |    4 |        2 | 2023-03-15 | 2023-03-29    | order_placed |
|  107 |    2 |        1 | 2023-03-14 | 2023-03-29    | order_placed |
|  108 |    7 |        1 | 2023-03-20 | 2023-03-25    | pending      |
|  109 |    3 |        2 | 2023-03-19 | 2023-03-22    | pending      |
|  110 |    9 |        2 | 2023-03-19 | 2023-03-22    | delivered    |
+------+------+----------+------------+---------------+--------------+
10 rows in set (0.00 sec)
```

c. Delete into table

```
mysql> /*delete query*/
mysql> delete from order_Details where o_id=102;
Query OK, 1 row affected (0.32 sec)
```

```
mysql> select * from order_details;
+------+------+----------+------------+---------------+--------------+
| o_id | p_id | quantity | o_date     | Delivery_date | O_status     |
+------+------+----------+------------+---------------+--------------+
|  101 |    1 |        2 | 2023-03-10 | 2023-03-15    | delivered    |
|  103 |   10 |        2 | 2023-03-10 | 2023-03-17    | pending      |
|  104 |   10 |        1 | 2023-03-10 | 2023-03-20    | pending      |
|  105 |    9 |        1 | 2023-03-12 | 2023-03-29    | order_placed |
|  106 |    4 |        2 | 2023-03-15 | 2023-03-29    | order_placed |
|  107 |    2 |        1 | 2023-03-14 | 2023-03-29    | order_placed |
|  108 |    7 |        1 | 2023-03-20 | 2023-03-25    | pending      |
|  109 |    3 |        2 | 2023-03-19 | 2023-03-22    | pending      |
|  110 |    9 |        2 | 2023-03-19 | 2023-03-22    | delivered    |
+------+------+----------+------------+---------------+--------------+
9 rows in set (0.00 sec)
```

6. Data Query Language (DQL)

a) select query:

- **Products;**

```
mysql> select *from products;
+------+-------------+--------+------------+
| p_id | p_name      | price  | brand_name |
+------+-------------+--------+------------+
|    1 | facewash    |  80.00 | lakme      |
|    2 | face serum  | 110.00 | Loreal     |
|    3 | body serum  | 200.00 | Loreal     |
|    4 | foundation  | 100.00 | sugar      |
|    5 | Moisturizer | 250.00 | Lakme      |
|    6 | Shampoo     | 300.00 | Loreal     |
|    7 | conditioner | 350.00 | Loreal     |
|    8 | face Mask   | 250.00 | lakme      |
|    9 | sunscreen   | 500.00 | sugar      |
|   10 | Perfume     | 600.00 | Loreal     |
|   11 | shampoo     | 450.00 | lakme      |
|   12 | perfume     | 800.00 | sugar      |
+------+-------------+--------+------------+
12 rows in set (0.00 sec)
```

➢ Dummy_customer_details;

```
mysql> select * from dummy_customer_details;
+--------+------------+--------+--------+------+
| cus_id | C_Name     | city   | Gender | o_id |
+--------+------------+--------+--------+------+
|     11 | john doe   | London | Male   |  101 |
|     12 |  SMITH     | London | Male   |  102 |
|     13 |  Samruddhi | Mumbai | Female |  103 |
+--------+------------+--------+--------+------+
3 rows in set (0.00 sec)
```

➢ Order_details;

```
mysql> select * from order_Details;
+------+------+----------+------------+---------------+--------------+
| o_id | p_id | quantity | o_date     | Delivery_date | O_status     |
+------+------+----------+------------+---------------+--------------+
|  101 |    1 |        2 | 2023-03-10 | 2023-03-15    | delivered    |
|  102 |    5 |        4 | 2023-03-10 | 2023-03-17    | delivered    |
|  103 |   10 |        2 | 2023-03-10 | 2023-03-17    | pending      |
|  104 |   10 |        1 | 2023-03-10 | 2023-03-20    | pending      |
|  105 |    9 |        1 | 2023-03-12 | NULL          | order_placed |
|  106 |    4 |        2 | 2023-03-15 | NULL          | order_placed |
|  107 |    2 |        1 | 2023-03-14 | NULL          | order_placed |
|  108 |    7 |        1 | 2023-03-20 | 2023-03-25    | pending      |
|  109 |    3 |        2 | 2023-03-19 | 2023-03-22    | pending      |
|  110 |    9 |        2 | 2023-03-19 | 2023-03-22    | delivered    |
+------+------+----------+------------+---------------+--------------+
10 rows in set (0.00 sec)
```

➢ Customer_details

```
mysql> select * from customer_details;
+--------+------------+-----------+---------+------+--------+------+
| cus_id | first_name | last_name | City    | age  | Gender | o_id |
+--------+------------+-----------+---------+------+--------+------+
|     11 | John       | Doe       | Mumbai  |   25 | Male   |  101 |
|     12 | Mary       | Smith     | Mumbai  |   27 | Female |   12 |
|     13 | Priya      | Dewangan  | Mumbai  |   31 | Female |  103 |
|     14 | Hina       | Sharma    | Mumbai  |   25 | Female |  104 |
|     15 | Sambit     | Mohanty   | London  |   23 | Male   |  105 |
|     16 | John       | Doe       | Mumbai  |   34 | Male   |  106 |
|     17 | Anusha     |  Mohanty  | London  |   23 | Female |  108 |
|     18 | Pranaya    | Kumar     | Germany |   30 | Male   |  108 |
|     19 | Preeti     | Kumar     | London  |   34 | FeMale |  109 |
|     20 | Harshad    | Smith     | Germany |   27 | Male   |  110 |
|     21 | Roshan     | Sharma    | Germany |   29 | Male   |  121 |
+--------+------------+-----------+---------+------+--------+------+
11 rows in set (0.00 sec)
```

➢ Sales_Table

```
mysql> select * from sales;
+----------------+------+----------+-------+----------+--------+------+
| transaction_id | p_id | quantity | price | subtotal | cus_id | O_id |
+----------------+------+----------+-------+----------+--------+------+
|           1101 |    1 |        2 |    80 |     NULL |     11 |  101 |
|           1103 |   10 |        2 |   600 |     NULL |     12 |  103 |
|           1104 |   10 |        4 |   600 |     NULL |     14 |  104 |
|           1105 |    9 |        1 |   500 |     NULL |     15 |  105 |
|           1106 |    4 |        2 |   100 |     NULL |     16 |  106 |
|           1107 |    7 |        1 |   350 |     NULL |     17 |  108 |
+----------------+------+----------+-------+----------+--------+------+
6 rows in set (0.00 sec)
```

➢ <u>Update subtotal;</u>

```
mysql> /*update subtotal*/
mysql> update sales set subtotal=quantity*price;
Query OK, 6 rows affected (0.10 sec)
Rows matched: 6  Changed: 6  Warnings: 0

mysql> select * from sales;
+----------------+------+----------+-------+----------+--------+------+
| transaction_id | p_id | quantity | price | subtotal | cus_id | O_id |
+----------------+------+----------+-------+----------+--------+------+
|           1101 |    1 |        2 |    80 |      160 |     11 |  101 |
|           1103 |   10 |        2 |   600 |     1200 |     12 |  103 |
|           1104 |   10 |        4 |   600 |     2400 |     14 |  104 |
|           1105 |    9 |        1 |   500 |      500 |     15 |  105 |
|           1106 |    4 |        2 |   100 |      200 |     16 |  106 |
|           1107 |    7 |        1 |   350 |      350 |     17 |  108 |
+----------------+------+----------+-------+----------+--------+------+
6 rows in set (0.00 sec)
```

b) <u>select query to specify column:</u>

```
mysql> /*Display cus_id,First_name,gender*/
mysql> select cus_id,first_name,gender from customer_details;
+--------+------------+--------+
| cus_id | first_name | gender |
+--------+------------+--------+
|     11 | John       | Male   |
|     12 | Mary       | Female |
|     13 | Priya      | Female |
|     14 | Hina       | Female |
|     15 | Sambit     | Male   |
|     16 | John       | Male   |
|     17 | Anusha     | Female |
|     18 | Pranaya    | Male   |
|     19 | Preeti     | FeMale |
|     20 | Harshad    | Male   |
+--------+------------+--------+
10 rows in set (0.00 sec)
```

c) Distinct Query**:**

```
mysql> /*To find disitinct brands*/
mysql> select distinct brand_name from products;
+------------+
| brand_name |
+------------+
| lakme      |
| Loreal     |
| sugar      |
+------------+
3 rows in set (0.00 sec)
```

7. Where Clause

➢ With comparison Operator

```
mysql> /*Where Clause*/
mysql> /*Display details of all Male customers*/
mysql> select* from customer_Details where gender='Male';
+--------+------------+-----------+---------+------+--------+------+
| cus_id | first_name | last_name | City    | age  | Gender | o_id |
+--------+------------+-----------+---------+------+--------+------+
|     11 | John       | Doe       | Mumbai  |   25 | Male   |  101 |
|     15 | Sambit     | Mohanty   | London  |   23 | Male   |  105 |
|     16 | John       | Doe       | Mumbai  |   34 | Male   |  106 |
|     18 | Pranaya    | Kumar     | Germany |   30 | Male   |  108 |
|     20 | Harshad    | Smith     | Germany |   27 | Male   |  110 |
|     21 | Roshan     | Sharma    | Germany |   29 | Male   |  121 |
+--------+------------+-----------+---------+------+--------+------+
6 rows in set (0.53 sec)
```

```
mysql> /*Display sale details of o_id 108*/
mysql> select * from sales where o_id=108;
+----------------+------+----------+-------+----------+--------+------+
| transaction_id | p_id | quantity | price | subtotal | cus_id | O_id |
+----------------+------+----------+-------+----------+--------+------+
|           1107 |    7 |        1 |   350 |      350 |     17 |  108 |
|           1108 |    7 |        3 |   400 |     1200 |     18 |  108 |
+----------------+------+----------+-------+----------+--------+------+
2 rows in set (0.26 sec)
```

```
mysql> /*Display order id,product id and status who recieved the delivery after 22 march*/
mysql> select o_id,p_id,o_status from order_details where delivery_date>'2023-03-22';
+------+------+--------------+
| o_id | p_id | o_status     |
+------+------+--------------+
|   12 |    7 | Pending      |
|  105 |    9 | order_placed |
|  106 |    4 | order_placed |
|  107 |    2 | order_placed |
|  108 |    7 | pending      |
+------+------+--------------+
5 rows in set (0.13 sec)
```

8. Order By Clause

a) Order by ascending order:

```
mysql> /* Display subtotals of all from sales in ascending order*/
mysql> select * from sales order by subtotal ASC;
+----------------+------+----------+-------+----------+--------+------+
| transaction_id | p_id | quantity | price | subtotal | cus_id | O_id |
+----------------+------+----------+-------+----------+--------+------+
|           1101 |    1 |        2 |    80 |      160 |     11 |  101 |
|           1106 |    4 |        2 |   100 |      200 |     16 |  106 |
|           1107 |    7 |        1 |   350 |      350 |     17 |  108 |
|           1105 |    9 |        1 |   500 |      500 |     15 |  105 |
|           1103 |   10 |        2 |   600 |     1200 |     12 |  103 |
|           1104 |   10 |        4 |   600 |     2400 |     14 |  104 |
+----------------+------+----------+-------+----------+--------+------+
6 rows in set (0.00 sec)
```

b) Order by descending order:

```
mysql> /* Display subtotals of all from sales in descending order*/
mysql> select * from sales order by subtotal DESC;
+----------------+------+----------+-------+----------+--------+------+
| transaction_id | p_id | quantity | price | subtotal | cus_id | O_id |
+----------------+------+----------+-------+----------+--------+------+
|           1104 |   10 |        4 |   600 |     2400 |     14 |  104 |
|           1103 |   10 |        2 |   600 |     1200 |     12 |  103 |
|           1105 |    9 |        1 |   500 |      500 |     15 |  105 |
|           1107 |    7 |        1 |   350 |      350 |     17 |  108 |
|           1106 |    4 |        2 |   100 |      200 |     16 |  106 |
|           1101 |    1 |        2 |    80 |      160 |     11 |  101 |
+----------------+------+----------+-------+----------+--------+------+
6 rows in set (0.00 sec)
```

c) Order by column:

```
mysql> /*Display customer records in order by name*/
mysql> select * from customer_details order by first_name;
+--------+------------+-----------+--------+--------+------+
| cus_id | first_name | last_name | City   | Gender | o_id |
+--------+------------+-----------+--------+--------+------+
|     17 | Anusha     |  Mohanty  | London | Female |  108 |
|     14 | Hina       | Sharma    | Mumbai | Female |  104 |
|     11 | John       | Doe       | Mumbai | Male   |  101 |
|     16 | John       | Doe       | Mumbai | Male   |  106 |
|     12 | Mary       | Smith     | Mumbai | Female |  102 |
|     13 | Priya      | Dewangan  | Mumbai | Female |  103 |
|     15 | Sambit     | Mohanty   | London | Male   |  105 |
+--------+------------+-----------+--------+--------+------+
7 rows in set (0.02 sec)
```

9. Logical Operators

a) AND operator:

```
mysql> /*Logical Operators*/
mysql> /*AND Operator*/
mysql> /*Display order details where status is pending and quantity is more than 1 */
mysql> select * from order_Details where o_status='pending' and quantity>1;
+------+------+----------+------------+---------------+----------+
| o_id | p_id | quantity | o_date     | Delivery_date | O_status |
+------+------+----------+------------+---------------+----------+
|   12 |    7 |        3 | 2023-03-20 | 2023-03-23    | Pending  |
|  103 |   10 |        2 | 2023-03-10 | 2023-03-17    | pending  |
|  104 |   10 |        4 | 2023-03-10 | 2023-03-20    | pending  |
|  109 |    3 |        2 | 2023-03-19 | 2023-03-22    | pending  |
+------+------+----------+------------+---------------+----------+
4 rows in set (0.04 sec)
```

b) OR Operator:

```
mysql> select * from order_Details where o_status='pending' or quantity>1;
+------+------+----------+------------+---------------+--------------+
| o_id | p_id | quantity | o_date     | Delivery_date | O_status     |
+------+------+----------+------------+---------------+--------------+
|   12 |    7 |        3 | 2023-03-20 | 2023-03-23    | Pending      |
|  101 |    1 |        3 | 2023-03-10 | 2023-03-15    | delivered    |
|  103 |   10 |        2 | 2023-03-10 | 2023-03-17    | pending      |
|  104 |   10 |        4 | 2023-03-10 | 2023-03-20    | pending      |
|  106 |    4 |        2 | 2023-03-15 | 2023-03-29    | order_placed |
|  108 |    7 |        1 | 2023-03-20 | 2023-03-25    | pending      |
|  109 |    3 |        2 | 2023-03-19 | 2023-03-22    | pending      |
|  110 |    9 |        3 | 2023-03-19 | 2023-03-22    | delivered    |
+------+------+----------+------------+---------------+--------------+
8 rows in set (0.00 sec)
```

c) NOT Operator:

```
mysql> /*Not operator*/
mysql> /*Dispaly order details where status is not delivered*/
mysql> select * from order_details where not o_status='delivered';
+------+------+----------+------------+---------------+--------------+
| o_id | p_id | quantity | o_date     | Delivery_date | O_status     |
+------+------+----------+------------+---------------+--------------+
|   12 |    7 |        3 | 2023-03-20 | 2023-03-23    | Pending      |
|  103 |   10 |        2 | 2023-03-10 | 2023-03-17    | pending      |
|  104 |   10 |        4 | 2023-03-10 | 2023-03-20    | pending      |
|  105 |    9 |        1 | 2023-03-12 | 2023-03-29    | order_placed |
|  106 |    4 |        2 | 2023-03-15 | 2023-03-29    | order_placed |
|  107 |    2 |        1 | 2023-03-14 | 2023-03-29    | order_placed |
|  108 |    7 |        1 | 2023-03-20 | 2023-03-25    | pending      |
|  109 |    3 |        2 | 2023-03-19 | 2023-03-22    | pending      |
+------+------+----------+------------+---------------+--------------+
8 rows in set (0.00 sec)
```

d) Between Operator :

```
mysql> /*Between Clause*/
mysql> /*Display order details who have placed the order between 13 march and 15 march*/
mysql> select * from order_Details where o_date between '2023-03-13' and '2023-03-15';
+------+------+----------+------------+---------------+--------------+
| o_id | p_id | quantity | o_date     | Delivery_date | O_status     |
+------+------+----------+------------+---------------+--------------+
|  106 |    4 |        2 | 2023-03-15 | 2023-03-29    | order_placed |
|  107 |    2 |        1 | 2023-03-14 | 2023-03-29    | order_placed |
+------+------+----------+------------+---------------+--------------+
2 rows in set (0.03 sec)
```

e) IN Operator :

```
mysql> /*IN Operator*/
mysql> /*Display customer details who belongs to city london,germany,usa,canada and gender is Male*/
mysql> select * from customer_details where city in('london','Germany','usa','canada') and gender='Male';
+--------+------------+-----------+---------+--------+------+
| cus_id | first_name | last_name | City    | Gender | o_id |
+--------+------------+-----------+---------+--------+------+
|     15 | Sambit     | Mohanty   | London  | Male   |  105 |
|     18 | Pranaya    | Kumar     | Germany | Male   |  108 |
|     20 | Harshad    | Smith     | Germany | Male   |  110 |
|     21 | Roshan     | Sharma    | Germany | Male   |  121 |
+--------+------------+-----------+---------+--------+------+
4 rows in set (0.00 sec)
```

---

f) Like Operator :

```
mysql> /*Like operator*/
mysql> /*Display customer details whose name starts with p*/
mysql> select * from customer_details where first_name like 'p%';
+--------+------------+-----------+---------+--------+------+
| cus_id | first_name | last_name | City    | Gender | o_id |
+--------+------------+-----------+---------+--------+------+
|     13 | Priya      | Dewangan  | Mumbai  | Female |  103 |
|     18 | Pranaya    | Kumar     | Germany | Male   |  108 |
|     19 | Preeti     | Kumar     | London  | FeMale |  109 |
+--------+------------+-----------+---------+--------+------+
3 rows in set (0.06 sec)
```

```
mysql> /*Display order details who received the order on 22nd day of the month*/
mysql> select * from order_details where delivery_date like '________22%' and o_status='delivered';
+------+------+----------+------------+---------------+-----------+
| o_id | p_id | quantity | o_date     | Delivery_date | O_status  |
+------+------+----------+------------+---------------+-----------+
|  110 |    9 |        3 | 2023-03-19 | 2023-03-22    | delivered |
+------+------+----------+------------+---------------+-----------+
1 row in set (0.00 sec)
```

```
mysql> /*Display o_id,city,name of customer where name is like ___u*/
mysql> select o_id,first_name,last_name,city from customer_details where first_name like '%__u%';
+------+------------+-----------+--------+
| o_id | first_name | last_name | city   |
+------+------------+-----------+--------+
|  108 | Anusha     |  Mohanty  | London |
+------+------------+-----------+--------+
1 row in set (0.00 sec)
```

10. Limit Clause :

```
mysql> /*Limit Clause*/
mysql> /*Display first 6 sales in the table*/
mysql> select * from sales limit 6;
+----------------+------+----------+-------+----------+--------+------+
| transaction_id | p_id | quantity | price | subtotal | cus_id | O_id |
+----------------+------+----------+-------+----------+--------+------+
|           1101 |    1 |        2 |    80 |      160 |     11 |  101 |
|           1103 |   10 |        2 |   600 |     1200 |     12 |  103 |
|           1104 |   10 |        4 |   600 |     2400 |     14 |  104 |
|           1105 |    9 |        1 |   500 |      500 |     15 |  105 |
|           1106 |    4 |        2 |   100 |      200 |     16 |  106 |
|           1107 |    7 |        1 |   350 |      350 |     17 |  108 |
+----------------+------+----------+-------+----------+--------+------+
6 rows in set (0.00 sec)
```

```
mysql> /*Display last 5 customer details */
mysql> select * from customer_Details limit 6,10;
+--------+------------+-----------+---------+--------+------+
| cus_id | first_name | last_name | City    | Gender | o_id |
+--------+------------+-----------+---------+--------+------+
|     17 | Anusha     |  Mohanty  | London  | Female |  108 |
|     18 | Pranaya    | Kumar     | Germany | Male   |  108 |
|     19 | Preeti     | Kumar     | London  | FeMale |  109 |
|     20 | Harshad    | Smith     | Germany | Male   |  110 |
|     21 | Roshan     | Sharma    | Germany | Male   |  121 |
+--------+------------+-----------+---------+--------+------+
5 rows in set (0.00 sec)
```

11. Aggregate Functions

a) Count Function :

```
mysql> /*Aggregate Function*/
mysql> /*Count function*/
mysql> /*Display total no of order pending to deliver*/
mysql> select  count(*)pending_delivery from order_Details where o_status='Pending';
+------------------+
| pending_delivery |
+------------------+
|                5 |
+------------------+
1 row in set (0.00 sec)
```

b) Sum Function :

```
mysql> /*SUM function*/
mysql> /*Display sum of subtotal sales of all products*/
mysql> select sum(subtotal) from sales;
+---------------+
| sum(subtotal) |
+---------------+
|          8960 |
+---------------+
1 row in set (0.06 sec)
```

c)Average Function :

```
mysql> /*Average Function*/
mysql> /*Display avg price of all products*/
mysql> select avg(price) avg_price from products;
+-------------+
| avg_price   |
+-------------+
| 332.500000 |
+-------------+
1 row in set (0.00 sec)
```

d)Max /Min Function :

```
mysql> /*Max/Min Function*/
mysql> /*display max price of the product*/
mysql> select max(price) from products;
+-------------+
| max(price) |
+-------------+
|     800.00 |
+-------------+
1 row in set (0.04 sec)

mysql> select min(price) from products;
+-------------+
| min(price) |
+-------------+
|      80.00 |
+-------------+
1 row in set (0.00 sec)
```

12. Group By clause

```
mysql>  /*Group by clause*/
mysql> /*Display all brand names which has max price*/
mysql> select brand_name,max(price) from products group by brand_name;
+------------+------------+
| brand_name | max(price) |
+------------+------------+
| lakme      |     450.00 |
| Loreal     |     600.00 |
| sugar      |     800.00 |
+------------+------------+
3 rows in set (0.00 sec)
```

```
mysql> /*Display gender total no of males and females*/
mysql> select gender,count(*)total_males_females from customer_details group by gender;
+--------+--------------------+
| gender | total_males_females |
+--------+--------------------+
| Male   |                  6 |
| Female |                  5 |
+--------+--------------------+
2 rows in set (0.00 sec)
```

```
mysql> /*Display  total amt of money spend by each customer*/
mysql> select cus_id,sum(subtotal) from sales group by cus_id;
+--------+---------------+
| cus_id | sum(subtotal) |
+--------+---------------+
|     11 |           160 |
|     12 |          2250 |
|     14 |          2400 |
|     15 |           500 |
|     16 |           200 |
|     17 |           350 |
|     18 |          1200 |
|     19 |          1900 |
+--------+---------------+
8 rows in set (0.00 sec)
```

```
mysql> /*Display total count of customers and total amt of money spend by each customer*/
mysql> select cus_id,count(*)count_of_customers,sum(subtotal) from sales group by cus_id;
+--------+--------------------+---------------+
| cus_id | count_of_customers | sum(subtotal) |
+--------+--------------------+---------------+
|     11 |                  1 |           160 |
|     12 |                  2 |          2250 |
|     14 |                  1 |          2400 |
|     15 |                  1 |           500 |
|     16 |                  1 |           200 |
|     17 |                  1 |           350 |
|     18 |                  1 |          1200 |
|     19 |                  2 |          1900 |
+--------+--------------------+---------------+
8 rows in set (0.08 sec)
```

13. <u>Having Clause :</u>

```
mysql> /*Having Clause*/
mysql> /*Display p_id,o_status count of o_status where status is pending*/
mysql> select p_id,o_status,count(*)o_status from order_Details group by p_id,o_status having o_status='Pending';
+------+----------+----------+
| p_id | o_status | o_status |
+------+----------+----------+
|    7 | Pending  |        2 |
|   10 | pending  |        2 |
|    3 | pending  |        1 |
+------+----------+----------+
3 rows in set, 2 warnings (0.05 sec)
```

```
mysql> /*display details cus_id,city only for females who lives in mumbai*/
mysql> select cus_id,city,gender from customer_Details where gender='female' group by city,gender,cus_id having city='Mumbai';
+--------+--------+--------+
| cus_id | city   | gender |
+--------+--------+--------+
|     12 | Mumbai | Female |
|     13 | Mumbai | Female |
|     14 | Mumbai | Female |
+--------+--------+--------+
3 rows in set (0.00 sec)
```

14. Sub Query :

```
mysql> /*SUB Queries*/
mysql> /*Display customer details whose order id is same as anusha and whose age is more than anusha*/
mysql> select * from customer_Details where o_id=(select o_id from customer_Details where first_name='Anusha')
    -> and
    -> age > (select max(age) from customer_Details
    -> where first_name='anusha');
+--------+------------+-----------+---------+------+--------+------+
| cus_id | first_name | last_name | City    | age  | Gender | o_id |
+--------+------------+-----------+---------+------+--------+------+
|     18 | Pranaya    | Kumar     | Germany |   30 | Male   |  108 |
+--------+------------+-----------+---------+------+--------+------+
1 row in set (0.00 sec)
```

```
mysql>  /*Display product details having 3rd highest price*/
mysql> select * from products where price =(
    -> select max(price) from products where price <(
    -> select max(price) from products where price<(
    -> select max(price) from products)));
+------+-----------+--------+------------+
| p_id | p_name    | price  | brand_name |
+------+-----------+--------+------------+
|    9 | sunscreen | 500.00 | sugar      |
+------+-----------+--------+------------+
1 row in set (0.00 sec)
```

```
mysql> /*Display sum of all brands price,all products if sum of price is more than sum of brand 'lakme'*/
mysql>  select brand_name,sum(price) total_price
    ->  from products group by brand_name
    -> having sum(price)>(select sum(price)
    -> from products where brand_name='Lakme');
+------------+-------------+
| brand_name | total_price |
+------------+-------------+
| Loreal     |     1560.00 |
| sugar      |     1400.00 |
+------------+-------------+
2 rows in set (0.00 sec)
```

- To update data with help of sub query

```
mysql> /*Update data with sub query*/
mysql> /*To update product price with max price of product id 6*/
mysql> update products set price=(select max(price) from products) where p_id=6;
```

15. ***Union Operator :***

```
mysql> /*Union Operator*/
mysql> /*Display details of customers min,max purchase*/
mysql> select * from sales where subtotal in (select max(subtotal)from sales union select min(subtotal) from sales);
+----------------+------+----------+-------+----------+--------+------+
| transaction_id | p_id | quantity | price | subtotal | cus_id | O_id |
+----------------+------+----------+-------+----------+--------+------+
|           1101 |    1 |        2 |    80 |      160 |     11 |  101 |
|           1104 |   10 |        4 |   600 |     2400 |     14 |  104 |
+----------------+------+----------+-------+----------+--------+------+
2 rows in set (0.01 sec)
```

```
mysql> select first_name from customer_details
    ->  union
    -> select transaction_id as sales_id
    -> from sales;
+-------------+
| first_name |
+-------------+
| John       |
| Mary       |
| Priya      |
| Hina       |
| Sambit     |
| Anusha     |
| Pranaya    |
| Preeti     |
| Harshad    |
| Roshan     |
| 1101       |
| 1109       |
| 1106       |
| 1107       |
| 1108       |
| 1111       |
| 1105       |
| 1110       |
| 1103       |
| 1104       |
+-------------+
20 rows in set (0.00 sec)
```

16. Any Operator :

```
mysql> /*Any Operator*/
mysql> /*Display all product details whose price is more than any lakme brand*/
mysql> select * from products where price > any(select price from products where brand_name='Lakme');
+------+-------------+--------+------------+
| p_id | p_name      | price  | brand_name |
+------+-------------+--------+------------+
|    2 | face serum  | 110.00 | Loreal     |
|    3 | body serum  | 200.00 | Loreal     |
|    4 | foundation  | 100.00 | sugar      |
|    5 | Moisturizer | 250.00 | Lakme      |
|    6 | Shampoo     | 300.00 | Loreal     |
|    7 | conditioner | 350.00 | Loreal     |
|    8 | face Mask   | 250.00 | lakme      |
|    9 | sunscreen   | 500.00 | sugar      |
|   10 | Perfume     | 600.00 | Loreal     |
|   11 | shampoo     | 450.00 | lakme      |
|   12 | perfume     | 800.00 | sugar      |
+------+-------------+--------+------------+
11 rows in set (0.06 sec)
```

```
mysql> select * from products where price
    ->  > any(select price from products
    -> where
    -> brand_name='Lakme' or brand_name='sugar');
+------+-------------+--------+------------+
| p_id | p_name      | price  | brand_name |
+------+-------------+--------+------------+
|    2 | face serum  | 110.00 | Loreal     |
|    3 | body serum  | 200.00 | Loreal     |
|    4 | foundation  | 100.00 | sugar      |
|    5 | Moisturizer | 250.00 | Lakme      |
|    6 | Shampoo     | 300.00 | Loreal     |
|    7 | conditioner | 350.00 | Loreal     |
|    8 | face Mask   | 250.00 | lakme      |
|    9 | sunscreen   | 500.00 | sugar      |
|   10 | Perfume     | 600.00 | Loreal     |
|   11 | shampoo     | 450.00 | lakme      |
|   12 | perfume     | 800.00 | sugar      |
+------+-------------+--------+------------+
11 rows in set (0.00 sec)
```

17. All Operator

```
mysql> /*All Operator*/
mysql>  select * from products where price > all(select price from products where brand_name='Lakme');
+------+-----------+--------+------------+
| p_id | p_name    | price  | brand_name |
+------+-----------+--------+------------+
|    9 | sunscreen | 500.00 | sugar      |
|   10 | Perfume   | 600.00 | Loreal     |
|   12 | perfume   | 800.00 | sugar      |
+------+-----------+--------+------------+
3 rows in set (0.00 sec)
```

```
mysql> select * from products where price >
    ->  all(select price from products
    -> where
    -> brand_name='Lakme' or brand_name='Loreal');
+------+---------+--------+------------+
| p_id | p_name  | price  | brand_name |
+------+---------+--------+------------+
|   12 | perfume | 800.00 | sugar      |
+------+---------+--------+------------+
1 row in set (0.00 sec)
```

18. Joins

a) Inner Join:

Combining all 4 tables with help of inner join:

```
mysql> /*Joins*/
mysql> /*INNER Joins*/
mysql> select products.p_id,order_details.o_id,customer_details.cus_id,first_name,last_name,city,gender,p_name,sales.quantity,sales.price,brand_name,transaction_id,subt
otal,o_status from products inner join order_Details on products.p_id=order_Details.p_id inner join customer_Details on order_details.o_id=customer_details.o_id inner j
oin sales on customer_Details.o_id=sales.o_id;
+------+------+--------+------------+-----------+---------+--------+-------------+----------+-------+-----------+----------------+----------+-------------+
| p_id | o_id | cus_id | first_name | last_name | city    | gender | p_name      | quantity | price | brand_name | transaction_id | subtotal | o_status    |
+------+------+--------+------------+-----------+---------+--------+-------------+----------+-------+-----------+----------------+----------+-------------+
|    1 |  101 |     11 | John       | Doe       | Mumbai  | Male   | facewash    |        2 |    80 | lakme      |           1101 |      160 | delivered   |
|    7 |   12 |     12 | Mary       | Smith     | Mumbai  | Female | conditioner |        3 |   350 | Loreal     |           1111 |     1050 | Pending     |
|   10 |  103 |     13 | Priya      | Dewangan  | Mumbai  | Female | Perfume     |        2 |   600 | Loreal     |           1103 |     1200 | pending     |
|   10 |  104 |     14 | Hina       | Sharma    | Mumbai  | Female | Perfume     |        4 |   600 | Loreal     |           1104 |     2400 | pending     |
|    9 |  105 |     15 | Sambit     | Mohanty   | London  | Male   | sunscreen   |        1 |   500 | sugar      |           1105 |      500 | order_placed |
|    4 |  106 |     16 | John       | Doe       | Mumbai  | Male   | foundation  |        2 |   100 | sugar      |           1106 |      200 | order_placed |
|    7 |  108 |     17 | Anusha     | Mohanty   | London  | Female | conditioner |        1 |   350 | Loreal     |           1107 |      350 | pending     |
|    7 |  108 |     17 | Anusha     | Mohanty   | London  | Female | conditioner |        3 |   400 | Loreal     |           1108 |     1200 | pending     |
|    7 |  108 |     18 | Pranaya    | Kumar     | Germany | Male   | conditioner |        1 |   350 | Loreal     |           1107 |      350 | pending     |
|    7 |  108 |     18 | Pranaya    | Kumar     | Germany | Male   | conditioner |        3 |   400 | Loreal     |           1108 |     1200 | pending     |
|    3 |  109 |     19 | Preeti     | Kumar     | London  | FeMale | body serum  |        2 |   200 | Loreal     |           1109 |      400 | pending     |
|    9 |  110 |     20 | Harshad    | Smith     | Germany | Male   | sunscreen   |        3 |   500 | sugar      |           1110 |     1500 | delivered   |
+------+------+--------+------------+-----------+---------+--------+-------------+----------+-------+-----------+----------------+----------+-------------+
12 rows in set (0.00 sec)
```

b) Left Outer Join:

```
mysql> /*Left Outer Join*/
mysql> select products.p_id,p_name,brand_name,o_id,quantity,o_status from products left outer join order_Details on products.p_id=order_details.p_id;
+------+-------------+------------+------+----------+-------------+
| p_id | p_name      | brand_name | o_id | quantity | o_status    |
+------+-------------+------------+------+----------+-------------+
|    1 | facewash    | lakme      |  101 |        3 | delivered   |
|    2 | face serum  | Loreal     |  107 |        1 | order_placed |
|    3 | body serum  | Loreal     |  109 |        2 | pending     |
|    4 | foundation  | sugar      |  106 |        2 | order_placed |
|    5 | Moisturizer | Lakme      | NULL |     NULL | NULL        |
|    6 | Shampoo     | Loreal     | NULL |     NULL | NULL        |
|    7 | conditioner | Loreal     |  108 |        1 | pending     |
|    7 | conditioner | Loreal     |   12 |        3 | Pending     |
|    8 | face Mask   | lakme      | NULL |     NULL | NULL        |
|    9 | sunscreen   | sugar      |  110 |        3 | delivered   |
|    9 | sunscreen   | sugar      |  105 |        1 | order_placed |
|   10 | Perfume     | Loreal     |  104 |        4 | pending     |
|   10 | Perfume     | Loreal     |  103 |        2 | pending     |
|   11 | shampoo     | lakme      | NULL |     NULL | NULL        |
|   12 | perfume     | sugar      | NULL |     NULL | NULL        |
+------+-------------+------------+------+----------+-------------+
15 rows in set (0.07 sec)
```

c) Right Outer Join:

```
mysql> /*Right outer join*/
mysql> select order_details.o_id,quantity,o_status,cus_id,first_name,last_name,city from order_details Right outer join customer_details on order_details.o_id=customer_
details.o_id;
+------+----------+--------------+--------+------------+-----------+--------+
| o_id | quantity | o_status     | cus_id | first_name | last_name | city   |
+------+----------+--------------+--------+------------+-----------+--------+
|  101 |        3 | delivered    |     11 | John       | Doe       | Mumbai |
|   12 |        3 | Pending      |     12 | Mary       | Smith     | Mumbai |
|  103 |        2 | pending      |     13 | Priya      | Dewangan  | Mumbai |
|  104 |        4 | pending      |     14 | Hina       | Sharma    | Mumbai |
|  105 |        1 | order_placed |     15 | Sambit     | Mohanty   | London |
|  106 |        2 | order_placed |     16 | John       | Doe       | Mumbai |
|  108 |        1 | pending      |     17 | Anusha     |  Mohanty  | London |
|  108 |        1 | pending      |     18 | Pranaya    | Kumar     | Germany |
|  109 |        2 | pending      |     19 | Preeti     | Kumar     | London |
|  110 |        3 | delivered    |     20 | Harshad    | Smith     | Germany |
| NULL |     NULL | NULL         |     21 | Roshan     | Sharma    | Germany |
+------+----------+--------------+--------+------------+-----------+--------+
11 rows in set (0.00 sec)
```

d) Full Join :

```
mysql> /*Full Join*/
mysql>  select products.p_id,p_name,brand_name,o_id,quantity,o_status from products Right outer join order_Details on products.p_id=order_details.p_id union select prod
ucts.p_id,p_name,brand_name,o_id,quantity,o_status from products left outer join order_Details on products.p_id=order_details.p_id;
+------+------------+------------+------+----------+--------------+
| p_id | p_name     | brand_name | o_id | quantity | o_status     |
+------+------------+------------+------+----------+--------------+
|    7 | conditioner | Loreal     |   12 |        3 | Pending      |
|    1 | facewash   | lakme      |  101 |        3 | delivered    |
|   10 | Perfume    | Loreal     |  103 |        2 | pending      |
|   10 | Perfume    | Loreal     |  104 |        4 | pending      |
|    9 | sunscreen  | sugar      |  105 |        1 | order_placed |
|    4 | foundation | sugar      |  106 |        2 | order_placed |
|    2 | face serum | Loreal     |  107 |        1 | order_placed |
|    7 | conditioner | Loreal     |  108 |        1 | pending      |
|    3 | body serum | Loreal     |  109 |        2 | pending      |
|    9 | sunscreen  | sugar      |  110 |        3 | delivered    |
|    5 | Moisturizer | Lakme      | NULL |     NULL | NULL         |
|    6 | Shampoo    | Loreal     | NULL |     NULL | NULL         |
|    8 | face Mask  | lakme      | NULL |     NULL | NULL         |
|   11 | shampoo    | lakme      | NULL |     NULL | NULL         |
|   12 | perfume    | sugar      | NULL |     NULL | NULL         |
+------+------------+------------+------+----------+--------------+
15 rows in set (0.00 sec)
```

19. Views

```
mysql> /*Create View*/
mysql> CREATE view view_customer_details
    ->  As select cus_id,first_name,city,age,gender
    -> from customer_Details;
Query OK, 0 rows affected (0.12 sec)
```

```
mysql> select  * from view_customer_Details;
+--------+------------+---------+------+--------+
| cus_id | first_name | city    | age  | gender |
+--------+------------+---------+------+--------+
|     11 | John       | Mumbai  |   25 | Male   |
|     12 | Mary       | Mumbai  |   27 | Female |
|     13 | Priya      | Mumbai  |   31 | Female |
|     14 | Hina       | Mumbai  |   25 | Female |
|     15 | Sambit     | London  |   23 | Male   |
|     16 | John       | Mumbai  |   34 | Male   |
|     17 | Anusha     | London  |   23 | Female |
|     18 | Pranaya    | Germany |   30 | Male   |
|     19 | Preeti     | London  |   34 | FeMale |
|     20 | Harshad    | Germany |   27 | Male   |
|     21 | Roshan     | Germany |   29 | Male   |
+--------+------------+---------+------+--------+
11 rows in set (0.07 sec)
```

➢ Update in view :

```
mysql> update view_customer_details set age=30 where cus_id=16;
Query OK, 1 row affected (0.11 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql>  select * from view_customer_details;
+--------+------------+---------+-----+--------+
| cus_id | first_name | city    | age | gender |
+--------+------------+---------+-----+--------+
|     11 | John       | Mumbai  |  25 | Male   |
|     12 | Mary       | Mumbai  |  27 | Female |
|     13 | Priya      | Mumbai  |  31 | Female |
|     14 | Hina       | Mumbai  |  25 | Female |
|     15 | Sambit     | London  |  23 | Male   |
|     16 | John       | Mumbai  |  30 | Male   |
|     17 | Anusha     | London  |  23 | Female |
|     18 | Pranaya    | Germany |  30 | Male   |
|     19 | Preeti     | London  |  34 | FeMale |
|     20 | Harshad    | Germany |  27 | Male   |
|     21 | Roshan     | Germany |  29 | Male   |
+--------+------------+---------+-----+--------+
11 rows in set (0.00 sec)
```

➢ Delete from view :

```
mysql> /*Delete view*/
mysql> delete from view_customer_Details where cus_id=21;
Query OK, 1 row affected (0.15 sec)

mysql>  select * from view_customer_details;
+--------+------------+---------+-----+--------+
| cus_id | first_name | city    | age | gender |
+--------+------------+---------+-----+--------+
|     11 | John       | Mumbai  |  25 | Male   |
|     12 | Mary       | Mumbai  |  27 | Female |
|     13 | Priya      | Mumbai  |  31 | Female |
|     14 | Hina       | Mumbai  |  25 | Female |
|     15 | Sambit     | London  |  23 | Male   |
|     16 | John       | Mumbai  |  30 | Male   |
|     17 | Anusha     | London  |  23 | Female |
|     18 | Pranaya    | Germany |  30 | Male   |
|     19 | Preeti     | London  |  34 | FeMale |
|     20 | Harshad    | Germany |  27 | Male   |
+--------+------------+---------+-----+--------+
10 rows in set (0.00 sec)
```

➢ Drop view table :

```
mysql> /*Drop view*/
mysql> drop view vw_customer;
Query OK, 0 rows affected (0.26 sec)

mysql> show tables;
+-----------------------+
| Tables_in_cosmetics   |
+-----------------------+
| customer_details      |
| order_details         |
| products              |
| sales                 |
| view_customer_details |
| vw_cus_details        |
| vw_customer_details   |
+-----------------------+
7 rows in set (0.01 sec)
```

➢ Creating Multiple view with one view :

```
mysql> /*Creating multiple view from one view*/
mysql> create view vw_customer as select first_name,city,age from view_customer_details;
Query OK, 0 rows affected (0.16 sec)

mysql> select * from vw_customer;
+------------+---------+------+
| first_name | city    | age  |
+------------+---------+------+
| John       | Mumbai  |   25 |
| Mary       | Mumbai  |   27 |
| Priya      | Mumbai  |   31 |
| Hina       | Mumbai  |   25 |
| Sambit     | London  |   23 |
| John       | Mumbai  |   34 |
| Anusha     | London  |   23 |
| Pranaya    | Germany |   30 |
| Preeti     | London  |   34 |
| Harshad    | Germany |   27 |
| Roshan     | Germany |   29 |
+------------+---------+------+
11 rows in set (0.00 sec)
```