Aim: - Implement Complex SQL Queries

Aggregate Functions:-

1) Count the total no. of orders.

```
[mysql>
[mysql> select count(*) from sales_order;
+----------+
| count(*) |
+----------+
|        6 |
+----------+
1 row in set (0.00 sec)
```

2) Calculate the average price of all the products.

```
1 row in set (0.00 sec)

[mysql> select avg(sell_price) from Product_master;
+-----------------+
| avg(sell_price) |
+-----------------+
|     3993.750000 |
+-----------------+
1 row in set (0.01 sec)
```

3) Calculate the minimum price of product

```
[mysql> select min(sell_price) from Product_master;
+-----------------+
| min(sell_price) |
+-----------------+
|          525.00 |
+-----------------+
1 row in set (0.00 sec)
```

1

4) Determine the maximum and minimum product price. Rename the title as max_price and min_price respectively.

```
[mysql> select min(sell_price) as 'min_price', max(sell_price) as 'max_price' from Product_master;
+-----------+-----------+
| min_price | max_price |
+-----------+-----------+
|    525.00 |  12000.00 |
+-----------+-----------+
1 row in set (0.00 sec)
```

5) Count the number of product having price greater than or equal to 1500.

```
[mysql> select count(*) from Product_master where sell_price > 1499;
+----------+
| count(*) |
+----------+
|        4 |
+----------+
1 row in set (0.01 sec)
```

6) Find all products whose qty_on_hand is less than reorder level.

```
[mysql> select * from Product_master where Qty_on_hand < Reorder_lvl;
+------------+-------------+----------------+--------------+-------------+-------------+------------+------------+
| Product_no | Description | Profit_percent | Unit_measure | Qty_on_hand | Reorder_lvl | Sell_price | Cost_price |
+------------+-------------+----------------+--------------+-------------+-------------+------------+------------+
| P08865     | 1.22 Drive  |           5.00 | Piece        |           2 |           3 |    1050.00 |    1000.00 |
+------------+-------------+----------------+--------------+-------------+-------------+------------+------------+
1 row in set (0.00 sec)
```

7)Count no. of products whose qty_on_hand is less than reorder level.

```
[mysql> select count(*) from Product_master where Qty_on_hand < Reorder_lvl;
+----------+
| count(*) |
+----------+
|        1 |
+----------+
1 row in set (0.00 sec)
```

Having and Group By:-

1) Print the description and total qty sold for each product.

```
1 row in set (0.00 sec)

mysql> select Description, count(*) from Product_master p,sales_order_details sd where p.Product_no=sd.product_no group by Description;
+---------------+----------+
| Description   | count(*) |
+---------------+----------+
| 1.44 Floppies |        4 |
| 540 HDD       |        2 |
| CD Drive      |        2 |
| Keyboards     |        1 |
| Monitors      |        2 |
| Mouse         |        1 |
| 1.44 Drive    |        2 |
+---------------+----------+
7 rows in set (0.01 sec)
```

2) Find the value of each product sold.

```
mysql> select Description,sum(qty_disp*product_rate) from Product_master p,sales_order_details sd where p.Product_no=sd.product_no group by Description;
+---------------+----------------------------+
| Description   | sum(qty_disp*product_rate) |
+---------------+----------------------------+
| 1.44 Floppies |                    9975.00 |
| 540 HDD       |                    8400.00 |
| CD Drive      |                   10500.00 |
| Keyboards     |                    9450.00 |
| Monitors      |                    6300.00 |
| Mouse         |                   12000.00 |
| 1.44 Drive    |                    3150.00 |
+---------------+----------------------------+
7 rows in set (0.00 sec)
```

Conclusion:- LO mapped LO2,LO4.