Database Management Systems Lab Experiment No: - 06
Aim: - Implement Simple SQL Queries like single table retrieval

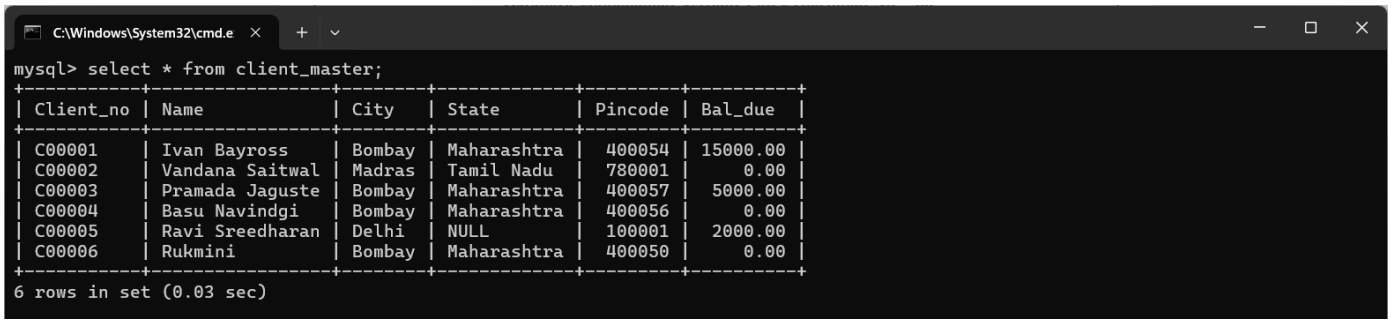
1) Find out the names of all clients:

Select name from Client_master;
Output:

```
C:\Windows\System32\cmd.e
mysql> select name from Client_master;
+-----------------+
| name            |
+-----------------+
| Ivan Bayross    |
| Vandana Saitwal |
| Pramada Jaguste |
| Basu Navindgi   |
| Ravi Sreedharan |
| Rukmini         |
+-----------------+
6 rows in set (0.04 sec)
```

2) print the entire client_master table:

Select * from Client_master;
Output:



```
C:\Windows\System32\cmd.e
mysql> select * from client_master;
+-----------+-----------------+--------+-------------+---------+----------+
| Client_no | Name            | City   | State       | Pincode | Bal_due  |
+-----------+-----------------+--------+-------------+---------+----------+
| C00001    | Ivan Bayross    | Bombay | Maharashtra |  400054 | 15000.00 |
| C00002    | Vandana Saitwal | Madras | Tamil Nadu  |  780001 |     0.00 |
| C00003    | Pramada Jaguste | Bombay | Maharashtra |  400057 |  5000.00 |
| C00004    | Basu Navindgi   | Bombay | Maharashtra |  400056 |     0.00 |
| C00005    | Ravi Sreedharan | Delhi  | NULL        |  100001 |  2000.00 |
| C00006    | Rukmini         | Bombay | Maharashtra |  400050 |     0.00 |
+-----------+-----------------+--------+-------------+---------+----------+
6 rows in set (0.03 sec)
```

3) Retrieve the list of names and the cities of all the clients:

Select name,city from Client_master;
Output:

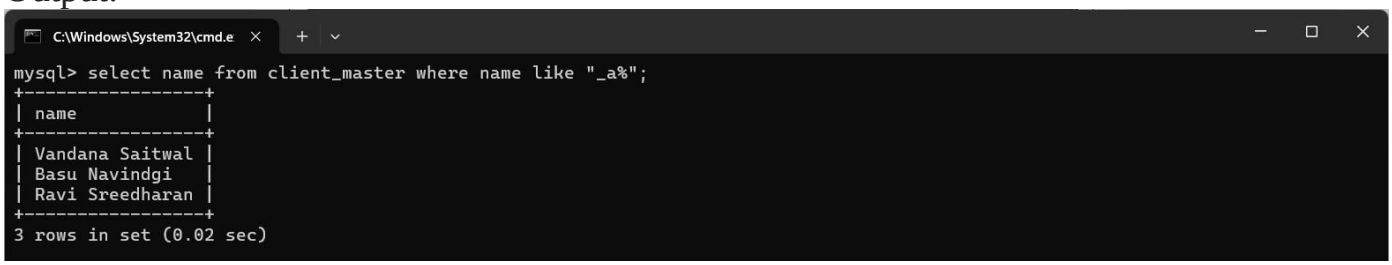
```
C:\Windows\System32\cmd.e
mysql> select name,city from Client_master;
+-----------------+--------+
| name            | city   |
+-----------------+--------+
| Ivan Bayross    | Bombay |
| Vandana Saitwal | Madras |
| Pramada Jaguste | Bombay |
| Basu Navindgi   | Bombay |
| Ravi Sreedharan | Delhi  |
| Rukmini         | Bombay |
+-----------------+--------+
6 rows in set (0.00 sec)
```

4) List the various products available from the product_master:

Select Description from Product_master;
Output:

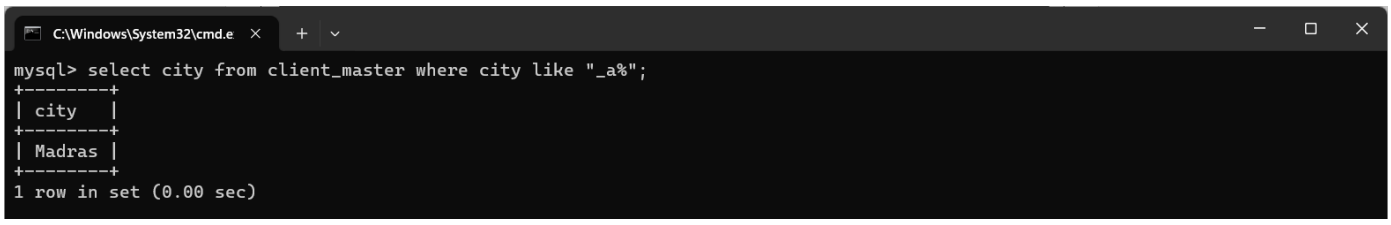
5) Find the name of all clients having 'a' as the second letter in their names:

Select Name from Client_master where like '_a%';
Output:



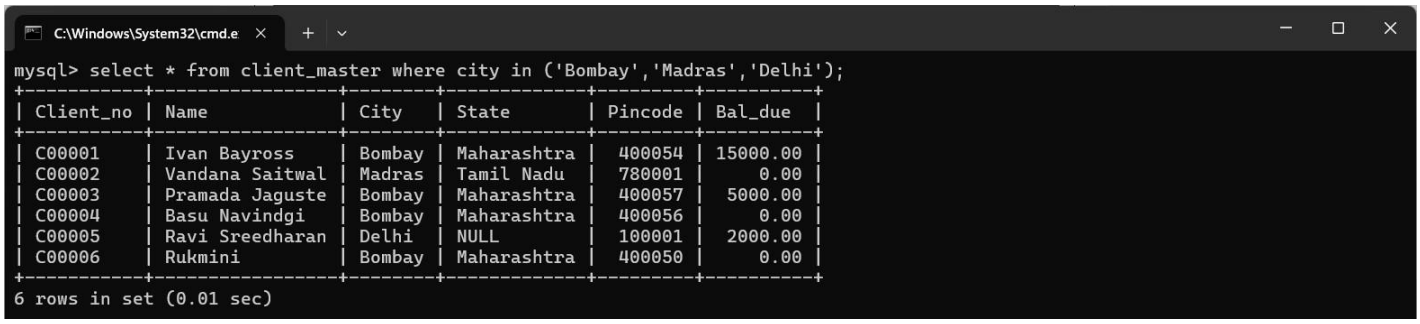
6) Find out the clients who stay in city whose second letter is 'a' :

Select city from Client_master where city like '_a%';
Output:



7) Find the list of all clients who stay in bombay or city delhi or city madras:

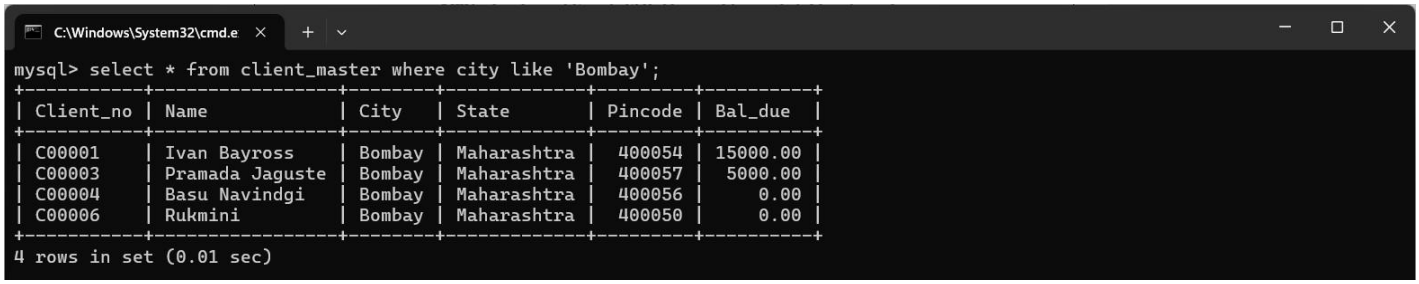
Select * from Client_master where city in (‘Bombay’,’Madras’,’Delhi’);
Output:



```
mysql> select * from client_master where city in ('Bombay','Madras','Delhi');
+-----------+-----------------+--------+-------------+---------+----------+
| Client_no | Name            | City   | State       | Pincode | Bal_due  |
+-----------+-----------------+--------+-------------+---------+----------+
| C00001    | Ivan Bayross    | Bombay | Maharashtra |  400054 | 15000.00 |
| C00002    | Vandana Saitwal | Madras | Tamil Nadu  |  780001 |     0.00 |
| C00003    | Pramada Jaguste | Bombay | Maharashtra |  400057 |  5000.00 |
| C00004    | Basu Navindgi   | Bombay | Maharashtra |  400056 |     0.00 |
| C00005    | Ravi Sreedharan | Delhi  | NULL        |  100001 |  2000.00 |
| C00006    | Rukmini         | Bombay | Maharashtra |  400050 |     0.00 |
+-----------+-----------------+--------+-------------+---------+----------+
6 rows in set (0.01 sec)
```

8) List all the clients who are located in 'Bombay':

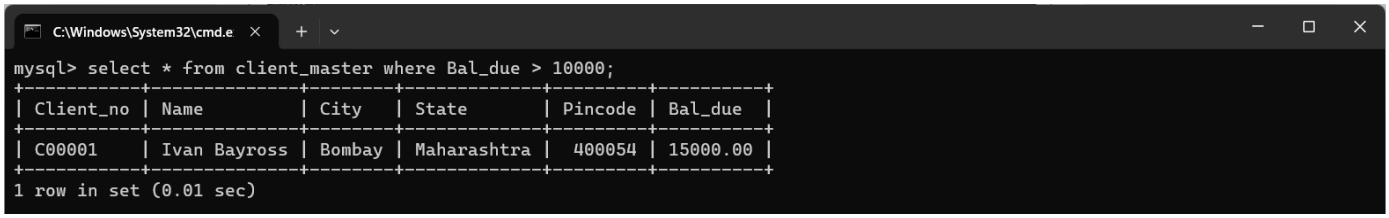
Select * from Client_master where city like ‘Bombay’;
Output:



```
mysql> select * from client_master where city like 'Bombay';
+-----------+-----------------+--------+-------------+---------+----------+
| Client_no | Name            | City   | State       | Pincode | Bal_due  |
+-----------+-----------------+--------+-------------+---------+----------+
| C00001    | Ivan Bayross    | Bombay | Maharashtra |  400054 | 15000.00 |
| C00003    | Pramada Jaguste | Bombay | Maharashtra |  400057 |  5000.00 |
| C00004    | Basu Navindgi   | Bombay | Maharashtra |  400056 |     0.00 |
| C00006    | Rukmini         | Bombay | Maharashtra |  400050 |     0.00 |
+-----------+-----------------+--------+-------------+---------+----------+
4 rows in set (0.01 sec)
```

9) Print the list of clients whose bal_due are greater than value 10000:

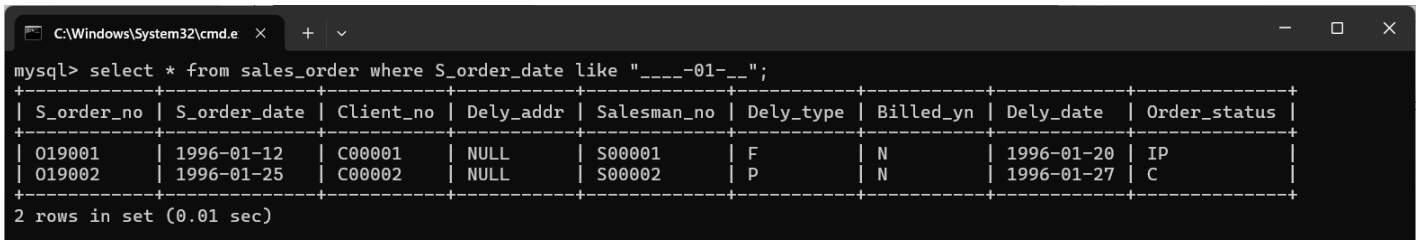
Select * from Client_master where Bal_due >10000;
Output:



```
mysql> select * from client_master where Bal_due > 10000;
+-----------+--------------+--------+-------------+---------+----------+
| Client_no | Name         | City   | State       | Pincode | Bal_due  |
+-----------+--------------+--------+-------------+---------+----------+
| C00001    | Ivan Bayross | Bombay | Maharashtra |  400054 | 15000.00 |
+-----------+--------------+--------+-------------+---------+----------+
1 row in set (0.01 sec)
```

10) Print the information from sales_order table of order placed in month of January:

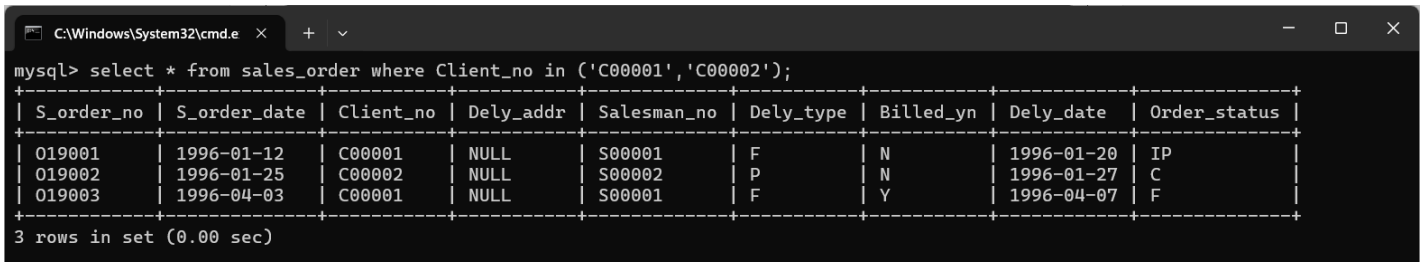
Select * from sales_order where S_order_date like '____-01-__';
Output:



```
C:\Windows\System32\cmd.e
mysql> select * from sales_order where S_order_date like "____-01-__";
+------------+--------------+-----------+-----------+-------------+-----------+-----------+------------+--------------+
| S_order_no | S_order_date | Client_no | Dely_addr | Salesman_no | Dely_type | Billed_yn | Dely_date  | Order_status |
+------------+--------------+-----------+-----------+-------------+-----------+-----------+------------+--------------+
| O19001     | 1996-01-12   | C00001    | NULL      | S00001      | F         | N         | 1996-01-20 | IP           |
| O19002     | 1996-01-25   | C00002    | NULL      | S00002      | P         | N         | 1996-01-27 | C            |
+------------+--------------+-----------+-----------+-------------+-----------+-----------+------------+--------------+
2 rows in set (0.01 sec)
```

11) Display order information for client_no 'c00001' and 'c00002' ;

Select * from Sales_order where Client_no in ('C00001','C00002');
Output:



```
C:\Windows\System32\cmd.e
mysql> select * from sales_order where Client_no in ('C00001','C00002');
+------------+--------------+-----------+-----------+-------------+-----------+-----------+------------+--------------+
| S_order_no | S_order_date | Client_no | Dely_addr | Salesman_no | Dely_type | Billed_yn | Dely_date  | Order_status |
+------------+--------------+-----------+-----------+-------------+-----------+-----------+------------+--------------+
| O19001     | 1996-01-12   | C00001    | NULL      | S00001      | F         | N         | 1996-01-20 | IP           |
| O19002     | 1996-01-25   | C00002    | NULL      | S00002      | P         | N         | 1996-01-27 | C            |
| O19003     | 1996-04-03   | C00001    | NULL      | S00001      | F         | Y         | 1996-04-07 | F            |
+------------+--------------+-----------+-----------+-------------+-----------+-----------+------------+--------------+
3 rows in set (0.00 sec)
```

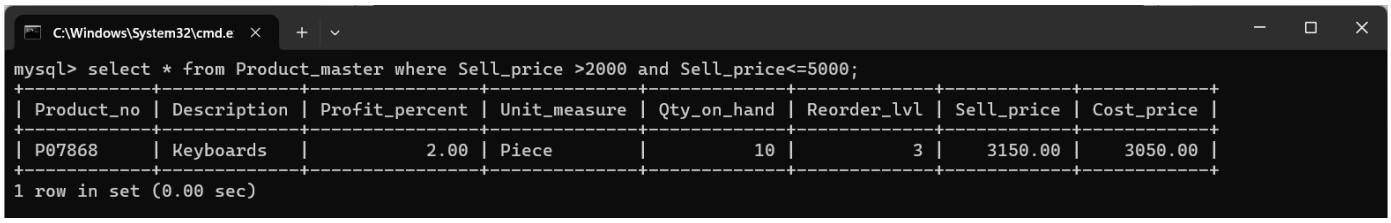
12) Find the products with description as '1.44 drive' and '1.22 drive' :

Select Product_no,Description from Product_master where Description ='1.44 Floppies' or Description ='1.22 Drive';
Output:

```
C:\Windows\System32\cmd.e
mysql> select Product_no,Description from product_master where Description = '1.44 Floppies' or  Description ='1.22 Drive';
+------------+---------------+
| Product_no | Description   |
+------------+---------------+
| P00001     | 1.44 Floppies |
| P08865     | 1.22 Drive    |
+------------+---------------+
2 rows in set (0.00 sec)
```

13) Find the product whose selling price is greater than 2000 and less than or equal to 5000:

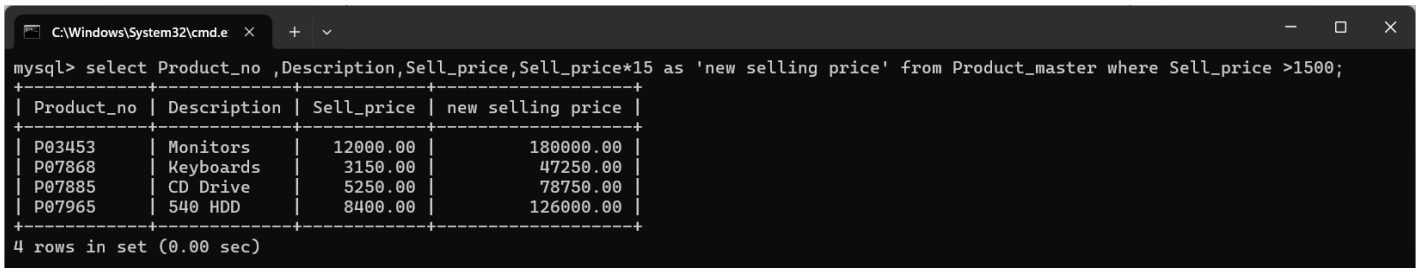
Select * from Product_master where Sell_price > 2000 and Sell_price<=5000;
Output:



```
C:\Windows\System32\cmd.e
mysql> select * from Product_master where Sell_price >2000 and Sell_price<=5000;
+------------+-------------+----------------+--------------+-------------+-------------+------------+------------+
| Product_no | Description | Profit_percent | Unit_measure | Qty_on_hand | Reorder_lvl | Sell_price | Cost_price |
+------------+-------------+----------------+--------------+-------------+-------------+------------+------------+
| P07868     | Keyboards   |           2.00 | Piece        |          10 |           3 |    3150.00 |    3050.00 |
+------------+-------------+----------------+--------------+-------------+-------------+------------+------------+
1 row in set (0.00 sec)
```

14) Find the product whose selling price is more than 1500 and also find the new selling price as original price * 15:

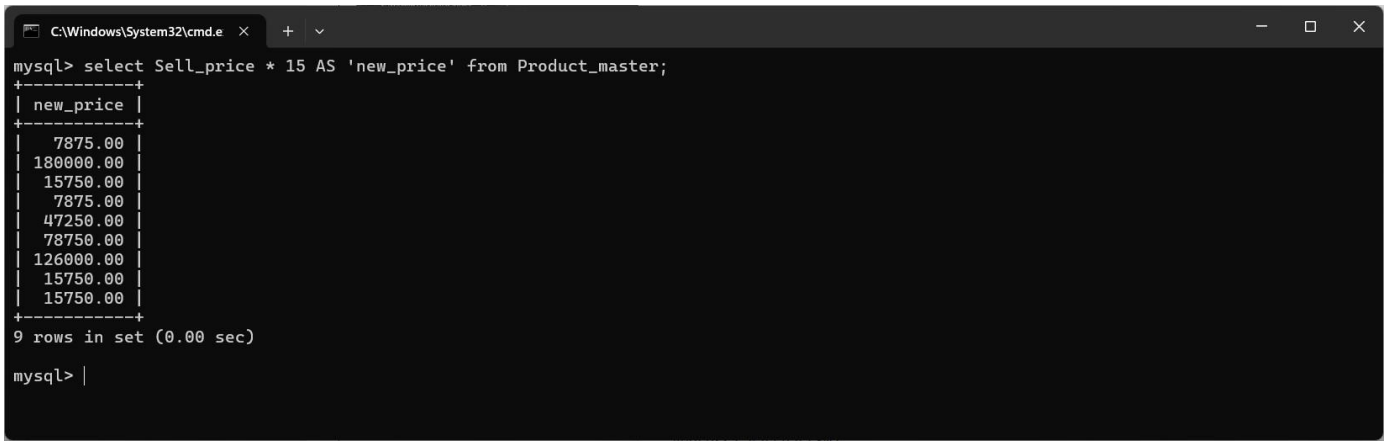
Select Product_no,Description,Sell_price,Sell_price* AS ‘new selling price ’ from Product_master where Sell_price>1500 ;
Output:



```
C:\Windows\System32\cmd.e
mysql> select Product_no ,Description,Sell_price,Sell_price*15 as 'new selling price' from Product_master where Sell_price >1500;
+------------+-------------+------------+-------------------+
| Product_no | Description | Sell_price | new selling price |
+------------+-------------+------------+-------------------+
| P03453     | Monitors    |   12000.00 |         180000.00 |
| P07868     | Keyboards   |    3150.00 |          47250.00 |
| P07885     | CD Drive    |    5250.00 |          78750.00 |
| P07965     | 540 HDD     |    8400.00 |         126000.00 |
+------------+-------------+------------+-------------------+
4 rows in set (0.00 sec)
```

15) Rename the new in the above query as new_price:

Select Sell_price * 15 AS ‘new_price’ from Product_master;
Output:

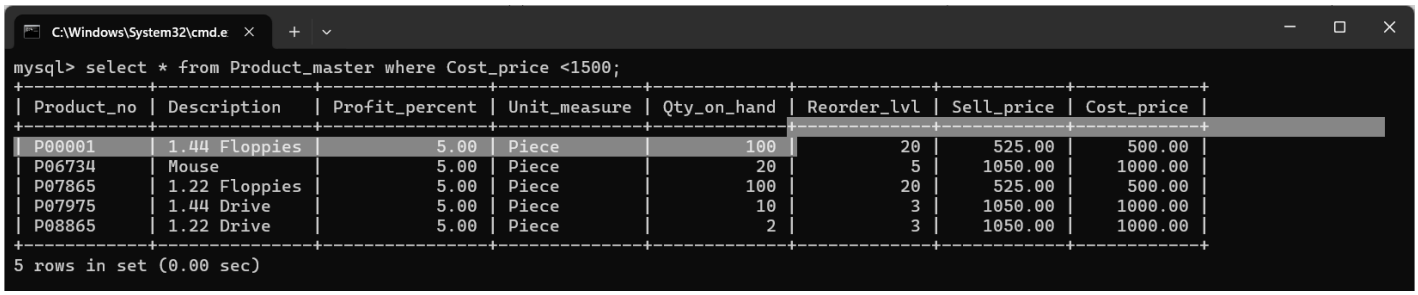


```
C:\Windows\System32\cmd.e
mysql> select Sell_price * 15 AS 'new_price' from Product_master;
+-----------+
| new_price |
+-----------+
|   7875.00 |
| 180000.00 |
|  15750.00 |
|   7875.00 |
|  47250.00 |
|  78750.00 |
| 126000.00 |
|  15750.00 |
|  15750.00 |
+-----------+
9 rows in set (0.00 sec)

mysql>
```

16) Find the product whose cost price is less than 1500

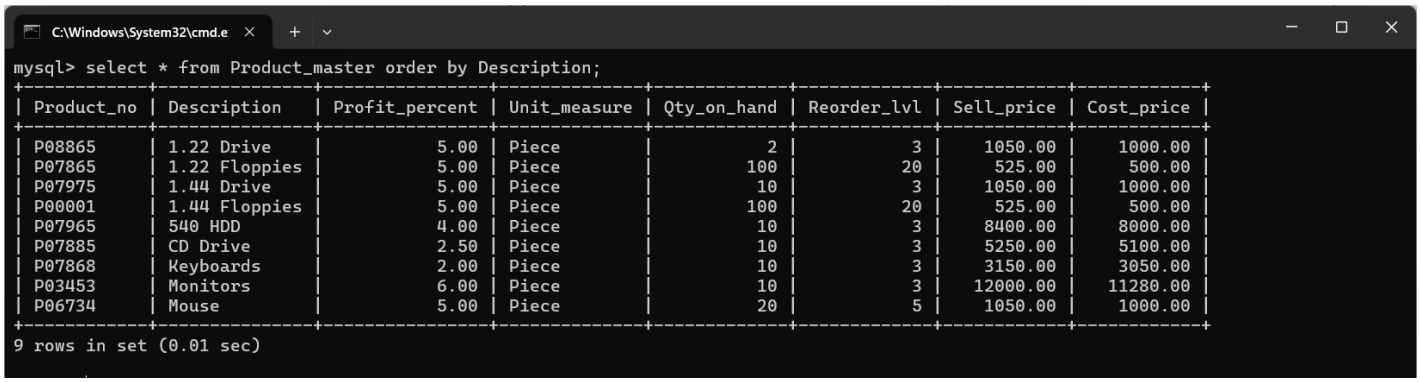
Select * from Product_master Cost_price <1500;
Output:



```
C:\Windows\System32\cmd.e
mysql> select * from Product_master where Cost_price <1500;
+------------+--------------+----------------+--------------+-------------+-------------+------------+------------+
| Product_no | Description  | Profit_percent | Unit_measure | Qty_on_hand | Reorder_lvl | Sell_price | Cost_price |
+------------+--------------+----------------+--------------+-------------+-------------+------------+------------+
| P00001     | 1.44 Floppies |           5.00 | Piece        |         100 |          20 |     525.00 |     500.00 |
| P06734     | Mouse        |           5.00 | Piece        |          20 |           5 |    1050.00 |    1000.00 |
| P07865     | 1.22 Floppies |           5.00 | Piece        |         100 |          20 |     525.00 |     500.00 |
| P07975     | 1.44 Drive   |           5.00 | Piece        |          10 |           3 |    1050.00 |    1000.00 |
| P08865     | 1.22 Drive   |           5.00 | Piece        |           2 |           3 |    1050.00 |    1000.00 |
+------------+--------------+----------------+--------------+-------------+-------------+------------+------------+
5 rows in set (0.00 sec)
```

17) List the product in sorted order of their description:

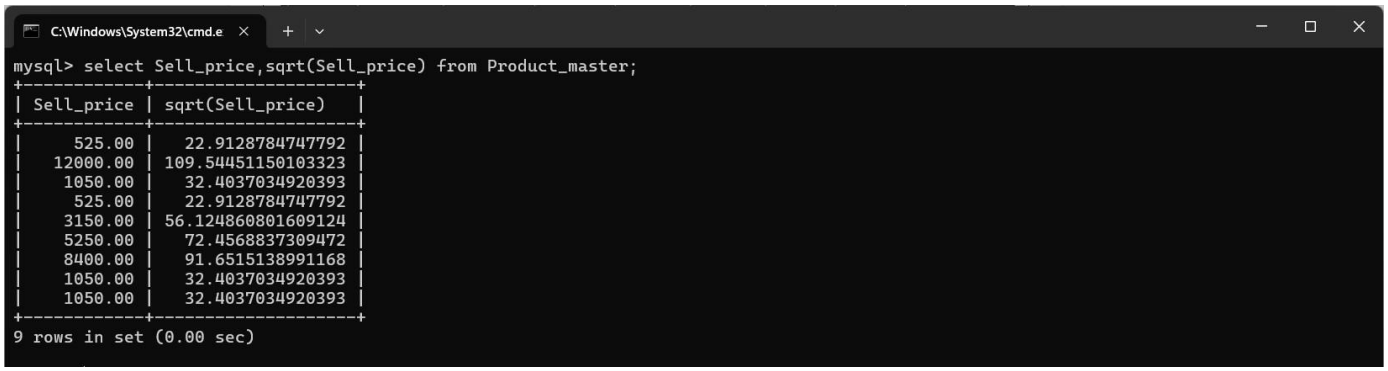
Select * from Product_master order by Description;
Output:



```
C:\Windows\System32\cmd.e
mysql> select * from Product_master order by Description;
+------------+--------------+----------------+--------------+-------------+-------------+------------+------------+
| 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 |
| P07865     | 1.22 Floppies |           5.00 | Piece        |         100 |          20 |     525.00 |     500.00 |
| P07975     | 1.44 Drive   |           5.00 | Piece        |          10 |           3 |    1050.00 |    1000.00 |
| P00001     | 1.44 Floppies |           5.00 | Piece        |         100 |          20 |     525.00 |     500.00 |
| P07965     | 540 HDD      |           4.00 | Piece        |          10 |           3 |    8400.00 |    8000.00 |
| P07885     | CD Drive     |           2.50 | Piece        |          10 |           3 |    5250.00 |    5100.00 |
| P07868     | Keyboards    |           2.00 | Piece        |          10 |           3 |    3150.00 |    3050.00 |
| P03453     | Monitors     |           6.00 | Piece        |          10 |           3 |   12000.00 |   11280.00 |
| P06734     | Mouse        |           5.00 | Piece        |          20 |           5 |    1050.00 |    1000.00 |
+------------+--------------+----------------+--------------+-------------+-------------+------------+------------+
9 rows in set (0.01 sec)
```

18) Calculate the square root of price of each product:

Select Sell_price ,sqrt(Sell_price) from Product_master;
Output:



```
C:\Windows\System32\cmd.e
mysql> select Sell_price,sqrt(Sell_price) from Product_master;
+------------+--------------------+
| Sell_price | sqrt(Sell_price)   |
+------------+--------------------+
|     525.00 |   22.9128784747792 |
|   12000.00 | 109.54451150103323 |
|    1050.00 |   32.4037034920393 |
|     525.00 |   22.9128784747792 |
|    3150.00 | 56.124860801609124 |
|    5250.00 |   72.4568837309472 |
|    8400.00 |   91.6515138991168 |
|    1050.00 |   32.4037034920393 |
|    1050.00 |   32.4037034920393 |
+------------+--------------------+
9 rows in set (0.00 sec)
```

19) Divide the cost of product '540 HDD' by /difference between its price and 100:

Select Cost_price/(Cost_price-100) from Product_master where Description like ‘540 HDD’;
Output**:**

```
mysql> select Cost_price/(Cost_price-100) from Product_master where Description like '540 HDD';
+------------------------------+
| Cost_price/(Cost_price-100) |
+------------------------------+
|                   1.012658 |
+------------------------------+
1 row in set (0.00 sec)
```

20) List the names,city,state of clients not in the state of 'Maharashtra' :

Select Name,City,State from Client_master where State not like ‘Maharashtra’;
Output:

```
mysql> select Name,City,State from Client_master where State not like "Maharashtra";
+-----------------+--------+------------+
| Name            | City   | State      |
+-----------------+--------+------------+
| Vandana Saitwal | Madras | Tamil Nadu |
+-----------------+--------+------------+
1 row in set (0.00 sec)
```

21) List the product_no,description,sell_price of products whose description begin with letter 'M' :

Select Product_no,Description,Sell_price from Product_master where Description like ‘M%’;
Output:

```
mysql> select Product_no,Description,Sell_price from Product_master where Description like "M%";
+------------+-------------+------------+
| Product_no | Description | Sell_price |
+------------+-------------+------------+
| P03453     | Monitors    |   12000.00 |
| P06734     | Mouse       |    1050.00 |
+------------+-------------+------------+
2 rows in set (0.00 sec)
```

22) List of all orders that were cancelled in month of May.

Select * from sales_order where S_order_date like ‘____-05-__’ and Order_status like ‘C’;
Output:

```
mysql> select * from sales_order where S_order_date like '____-05-__' and Order_status like 'C';
+------------+--------------+-----------+-----------+-------------+-----------+-----------+------------+--------------+
| S_order_no | S_order_date | Client_no | Dely_addr | Salesman_no | Dely_type | Billed_yn | Dely_date  | Order_status |
+------------+--------------+-----------+-----------+-------------+-----------+-----------+------------+--------------+
| O46866     | 1996-05-20   | C00004    | NULL      | S00002      | P         | N         | 1996-05-22 | C            |
+------------+--------------+-----------+-----------+-------------+-----------+-----------+------------+--------------+
1 row in set (0.00 sec)
```

Conclusion: LO2, LO3 mapped