EXPERIMENT-5

Title: To understand and use SQL Sub-Query

Objective: To understand the use of sql subquery.

1. Create the following table.

Supplier-(scode,sname,scity,turnover)

Part-(pcode,weigh,color,cost,sellingprice)

Supplier_Part-(scode,pcode,qty)

2. Populate the table

3. Write appropriate SQL Statement for the following:

1. Get the supplier number and part number in ascending order of supplier number.
2. Get the details of supplier who operate from Bombay with turnover 50.
3. Get the total number of supplier.
4. Get the part number weighing between 25 and 35.
5. Get the supplier number whose turnover is null.
6. Get the part number that cost 20, 30 or 40 rupees.
7. Get the total quantity of part 2 that is supplied.
8. Get the name of supplier who supply part 2.
9. Get the part number whose cost is greater than the average cost.
10. Get the supplier number and turnover in descending order of turnover.

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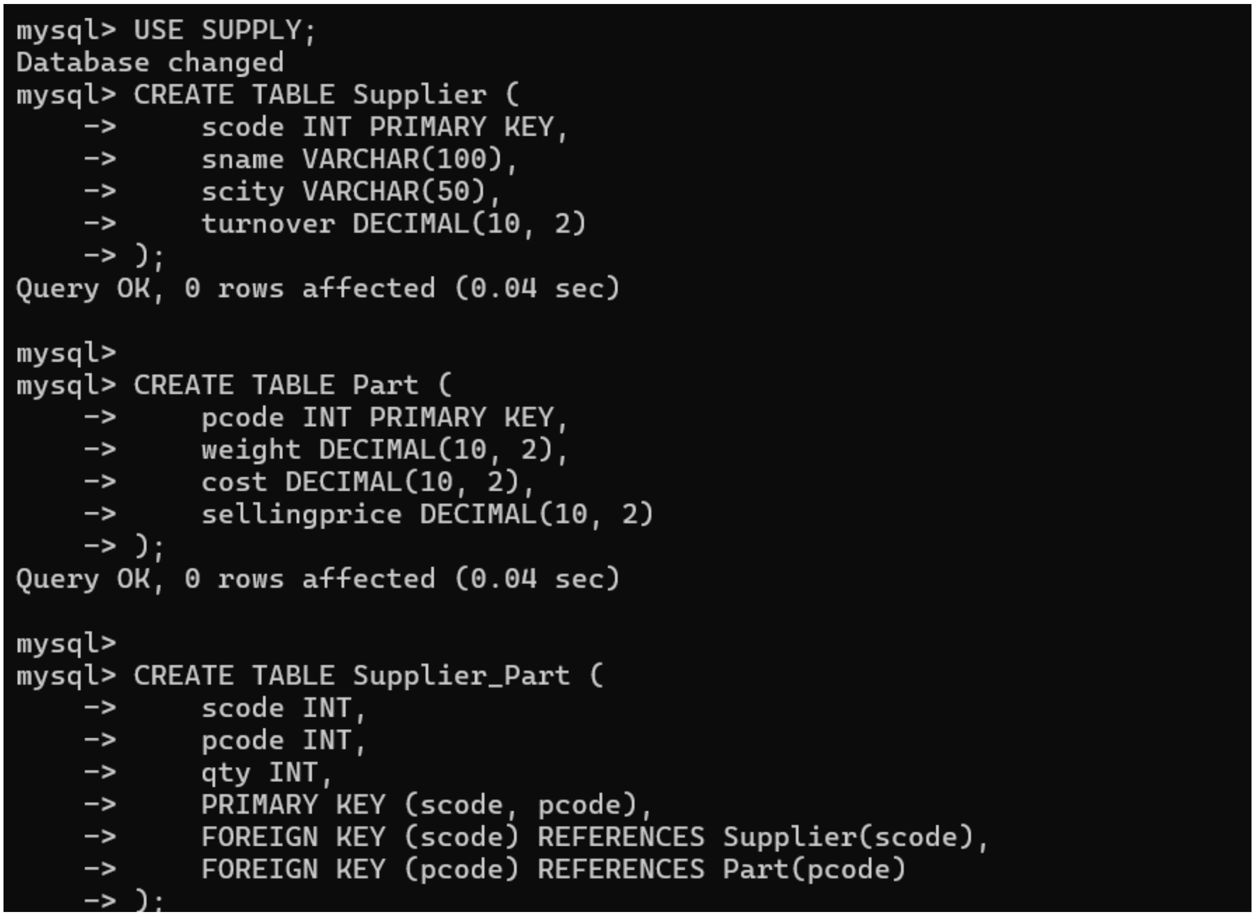
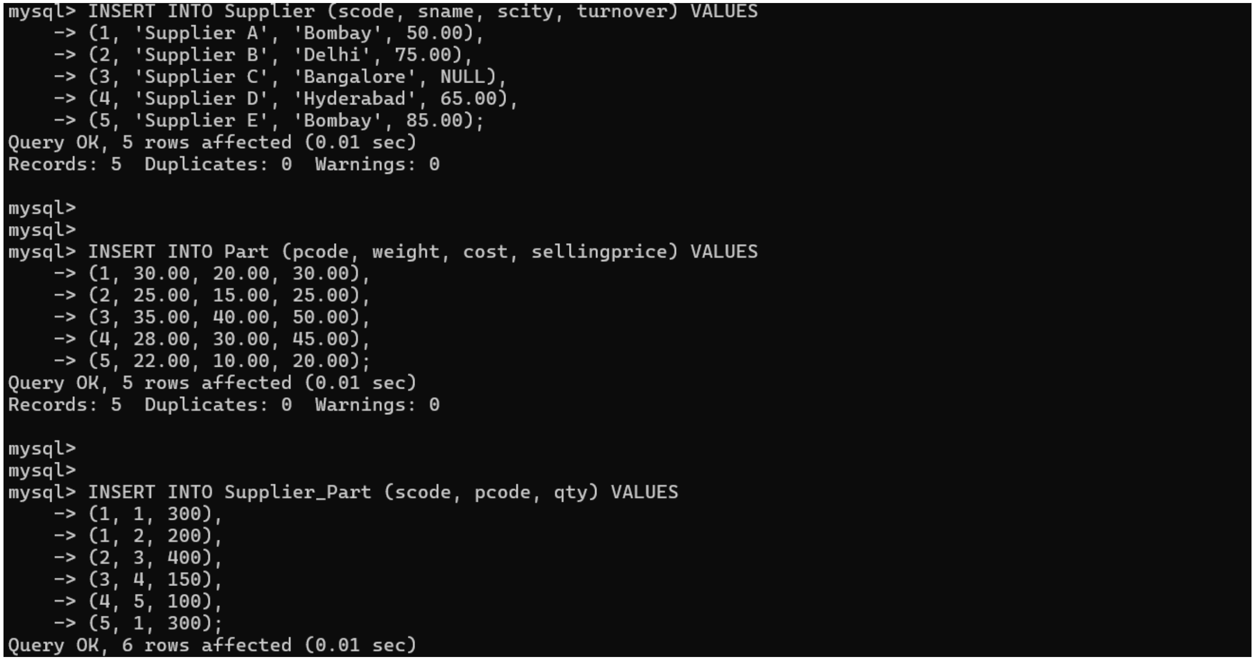
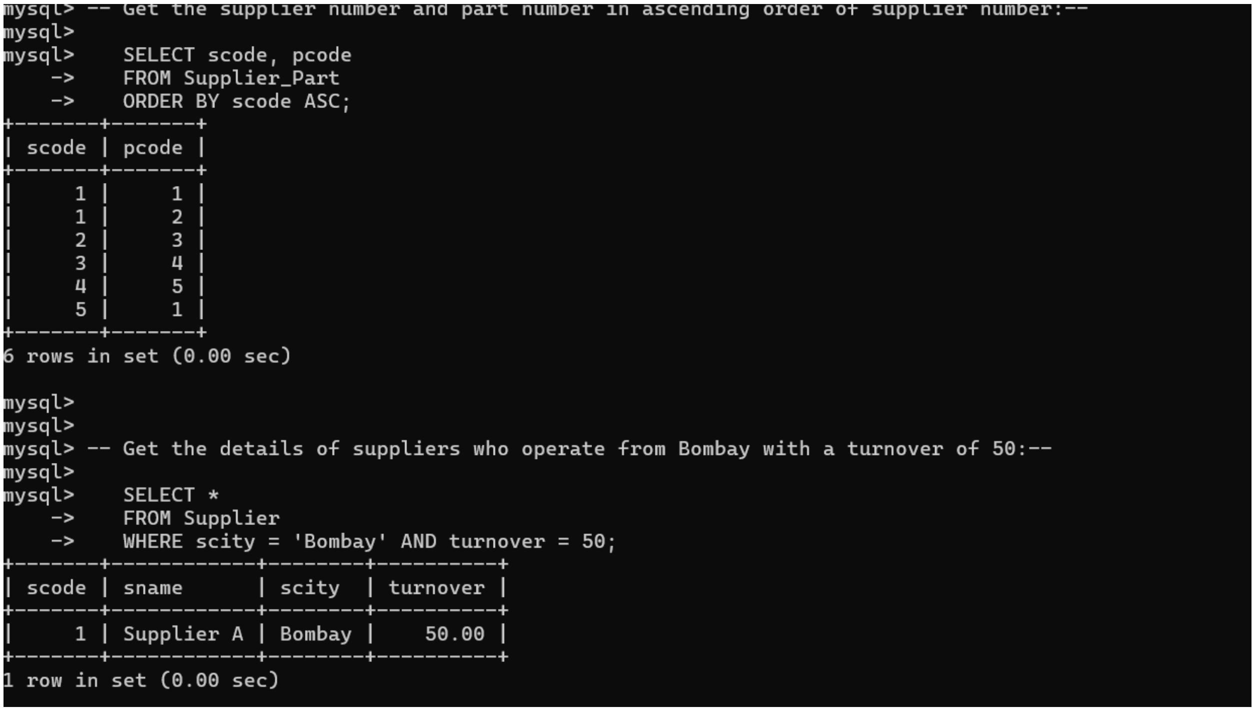


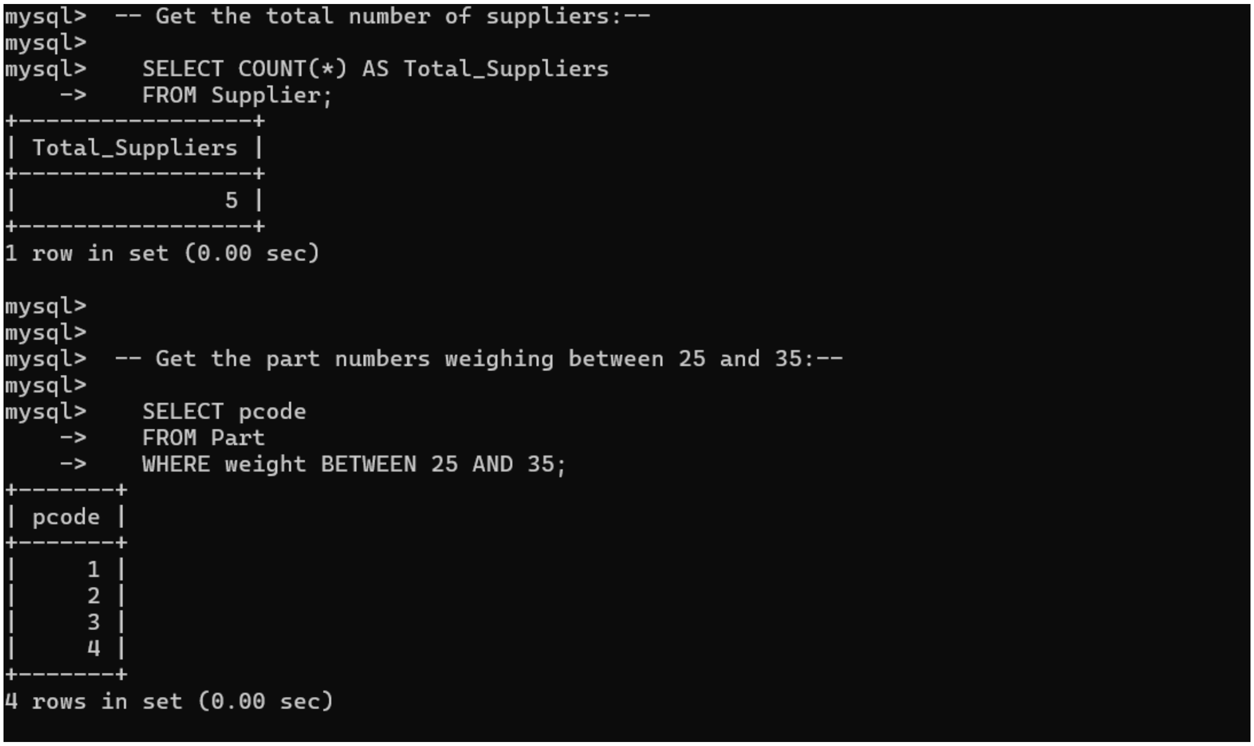
```
mysql> USE SUPPLY;
Database changed
mysql> CREATE TABLE Supplier (
    ->     scode INT PRIMARY KEY,
    ->     sname VARCHAR(100),
    ->     scity VARCHAR(50),
    ->     turnover DECIMAL(10, 2)
    -> );
Query OK, 0 rows affected (0.04 sec)

mysql>
mysql> CREATE TABLE Part (
    ->     pcode INT PRIMARY KEY,
    ->     weight DECIMAL(10, 2),
    ->     cost DECIMAL(10, 2),
    ->     sellingprice DECIMAL(10, 2)
    -> );
Query OK, 0 rows affected (0.04 sec)

mysql>
mysql> CREATE TABLE Supplier_Part (
    ->     scode INT,
    ->     pcode INT,
    ->     qty INT,
    ->     PRIMARY KEY (scode, pcode),
    ->     FOREIGN KEY (scode) REFERENCES Supplier(scode),
    ->     FOREIGN KEY (pcode) REFERENCES Part(pcode)
    -> );
```



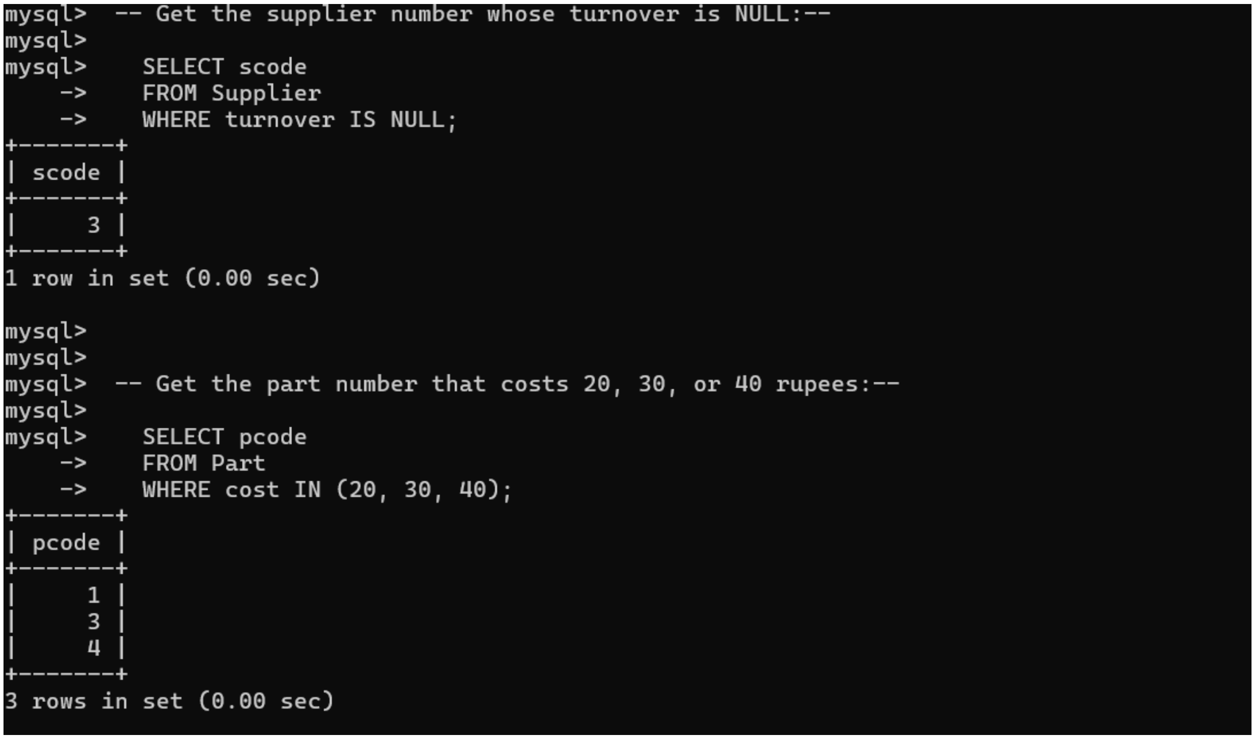
```
mysql> INSERT INTO Supplier (scode, sname, scity, turnover) VALUES
    -> (1, 'Supplier A', 'Bombay', 50.00),
    -> (2, 'Supplier B', 'Delhi', 75.00),
    -> (3, 'Supplier C', 'Bangalore', NULL),
    -> (4, 'Supplier D', 'Hyderabad', 65.00),
    -> (5, 'Supplier E', 'Bombay', 85.00);
Query OK, 5 rows affected (0.01 sec)
Records: 5  Duplicates: 0  Warnings: 0

mysql>
mysql>
mysql> INSERT INTO Part (pcode, weight, cost, sellingprice) VALUES
    -> (1, 30.00, 20.00, 30.00),
    -> (2, 25.00, 15.00, 25.00),
    -> (3, 35.00, 40.00, 50.00),
    -> (4, 28.00, 30.00, 45.00),
    -> (5, 22.00, 10.00, 20.00);
Query OK, 5 rows affected (0.01 sec)
Records: 5  Duplicates: 0  Warnings: 0

mysql>
mysql>
mysql> INSERT INTO Supplier_Part (scode, pcode, qty) VALUES
    -> (1, 1, 300),
    -> (1, 2, 200),
    -> (2, 3, 400),
    -> (3, 4, 150),
    -> (4, 5, 100),
    -> (5, 1, 300);
Query OK, 6 rows affected (0.01 sec)
```



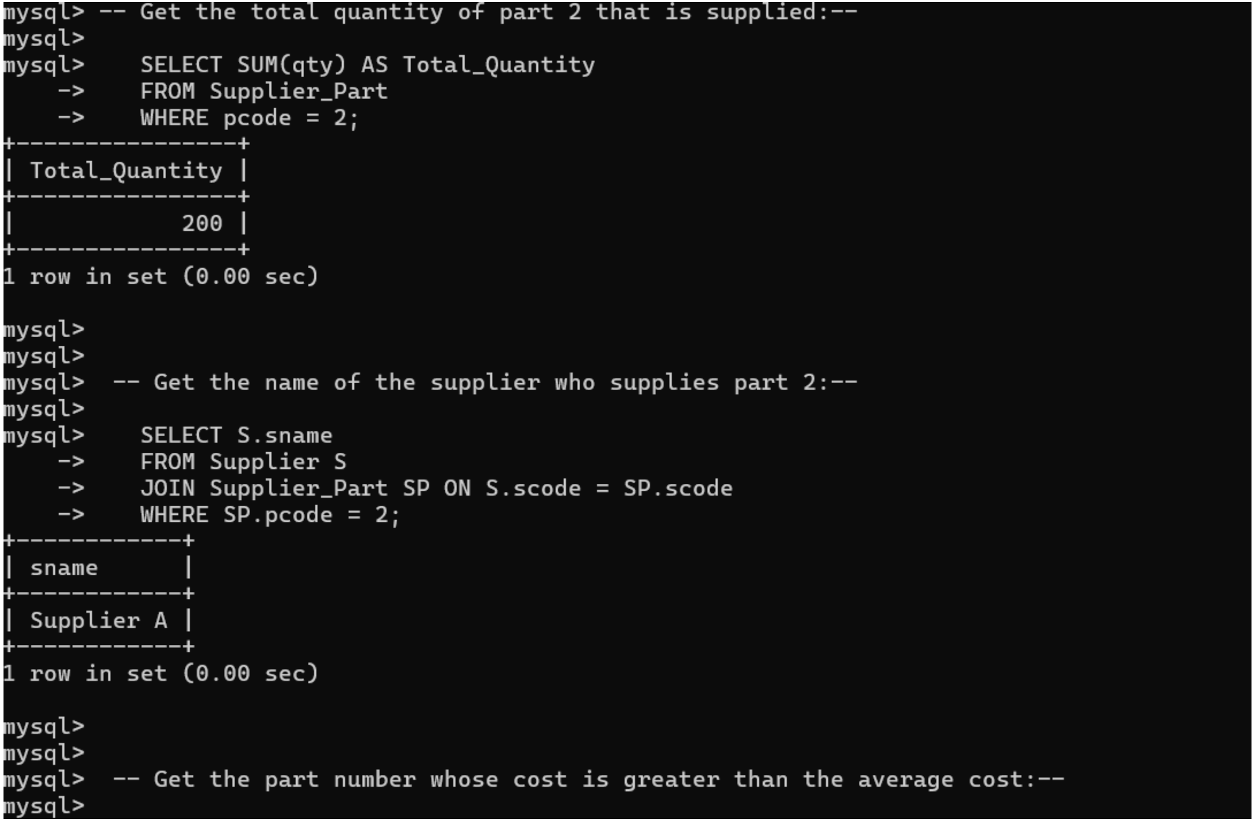
```
mysql> -- Get the supplier number and part number in ascending order of supplier number:--
mysql>
mysql>    SELECT scode, pcode
    ->    FROM Supplier_Part
    ->    ORDER BY scode ASC;
+-------+-------+
| scode | pcode |
+-------+-------+
|     1 |     1 |
|     1 |     2 |
|     2 |     3 |
|     3 |     4 |
|     4 |     5 |
|     5 |     1 |
+-------+-------+
6 rows in set (0.00 sec)

mysql>
mysql>
mysql> -- Get the details of suppliers who operate from Bombay with a turnover of 50:--
mysql>
mysql>    SELECT *
    ->    FROM Supplier
    ->    WHERE scity = 'Bombay' AND turnover = 50;
+-------+------------+--------+----------+
| scode | sname      | scity  | turnover |
+-------+------------+--------+----------+
|     1 | Supplier A | Bombay |    50.00 |
+-------+------------+--------+----------+
1 row in set (0.00 sec)
```



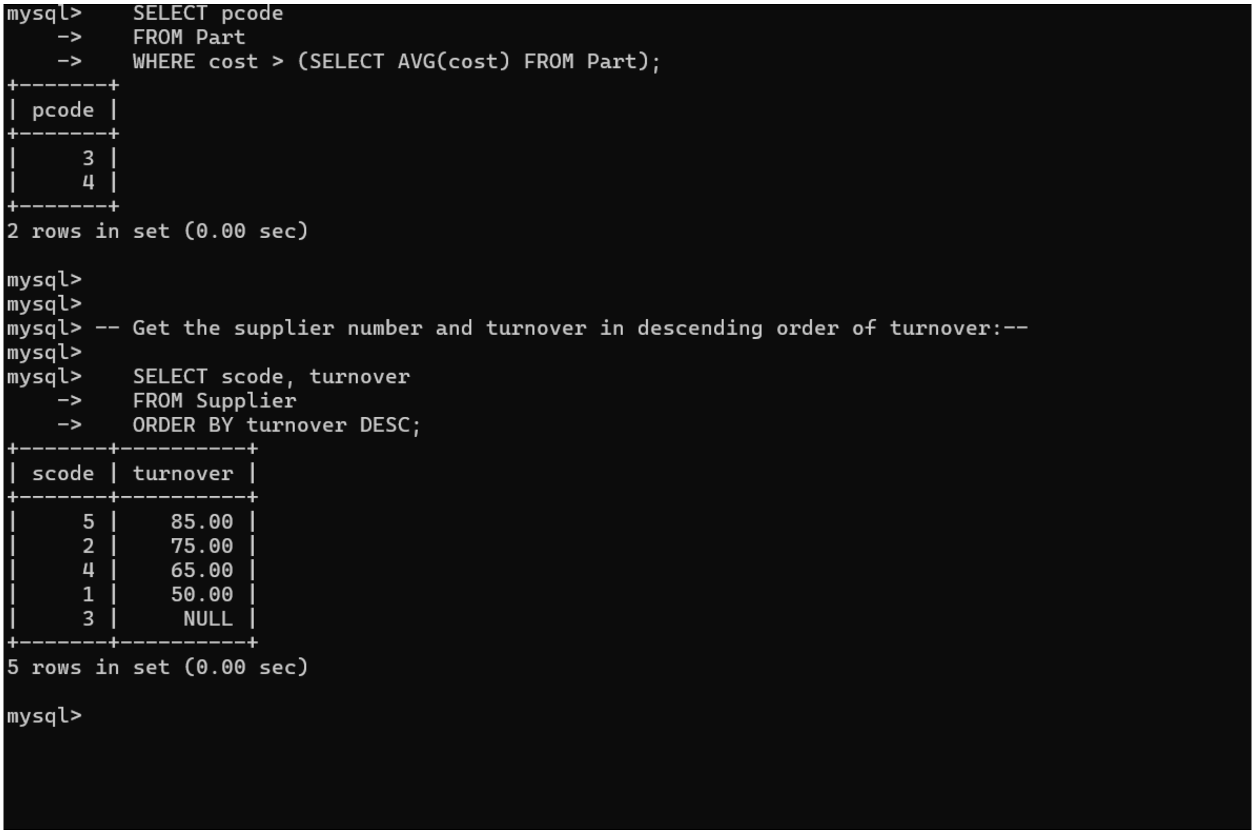
```
mysql>  -- Get the total number of suppliers:--
mysql>
mysql>    SELECT COUNT(*) AS Total_Suppliers
    ->    FROM Supplier;
+-----------------+
| Total_Suppliers |
+-----------------+
|               5 |
+-----------------+
1 row in set (0.00 sec)

mysql>
mysql>
mysql>  -- Get the part numbers weighing between 25 and 35:--
mysql>
mysql>    SELECT pcode
    ->    FROM Part
    ->    WHERE weight BETWEEN 25 AND 35;
+-------+
| pcode |
+-------+
|     1 |
|     2 |
|     3 |
|     4 |
+-------+
4 rows in set (0.00 sec)
```



```
mysql>  -- Get the supplier number whose turnover is NULL:--
mysql>
mysql>    SELECT scode
    ->    FROM Supplier
    ->    WHERE turnover IS NULL;
+-------+
| scode |
+-------+
|     3 |
+-------+
1 row in set (0.00 sec)

mysql>
mysql>
mysql>  -- Get the part number that costs 20, 30, or 40 rupees:--
mysql>
mysql>    SELECT pcode
    ->    FROM Part
    ->    WHERE cost IN (20, 30, 40);
+-------+
| pcode |
+-------+
|     1 |
|     3 |
|     4 |
+-------+
3 rows in set (0.00 sec)
```



```
mysql> -- Get the total quantity of part 2 that is supplied:--
mysql>
mysql>    SELECT SUM(qty) AS Total_Quantity
    ->    FROM Supplier_Part
    ->    WHERE pcode = 2;
+----------------+
| Total_Quantity |
+----------------+
|            200 |
+----------------+
1 row in set (0.00 sec)

mysql>
mysql>
mysql>  -- Get the name of the supplier who supplies part 2:--
mysql>
mysql>    SELECT S.sname
    ->    FROM Supplier S
    ->    JOIN Supplier_Part SP ON S.scode = SP.scode
    ->    WHERE SP.pcode = 2;
+------------+
| sname      |
+------------+
| Supplier A |
+------------+
1 row in set (0.00 sec)

mysql>
mysql>
mysql>  -- Get the part number whose cost is greater than the average cost:--
mysql>
```



```
mysql>    SELECT pcode
    ->    FROM Part
    ->    WHERE cost > (SELECT AVG(cost) FROM Part);
+-------+
| pcode |
+-------+
|     3 |
|     4 |
+-------+
2 rows in set (0.00 sec)

mysql>
mysql>
mysql> -- Get the supplier number and turnover in descending order of turnover:--
mysql>
mysql>    SELECT scode, turnover
    ->    FROM Supplier
    ->    ORDER BY turnover DESC;
+-------+----------+
| scode | turnover |
+-------+----------+
|     5 |    85.00 |
|     2 |    75.00 |
|     4 |    65.00 |
|     1 |    50.00 |
|     3 |     NULL |
+-------+----------+
5 rows in set (0.00 sec)

mysql>
```