

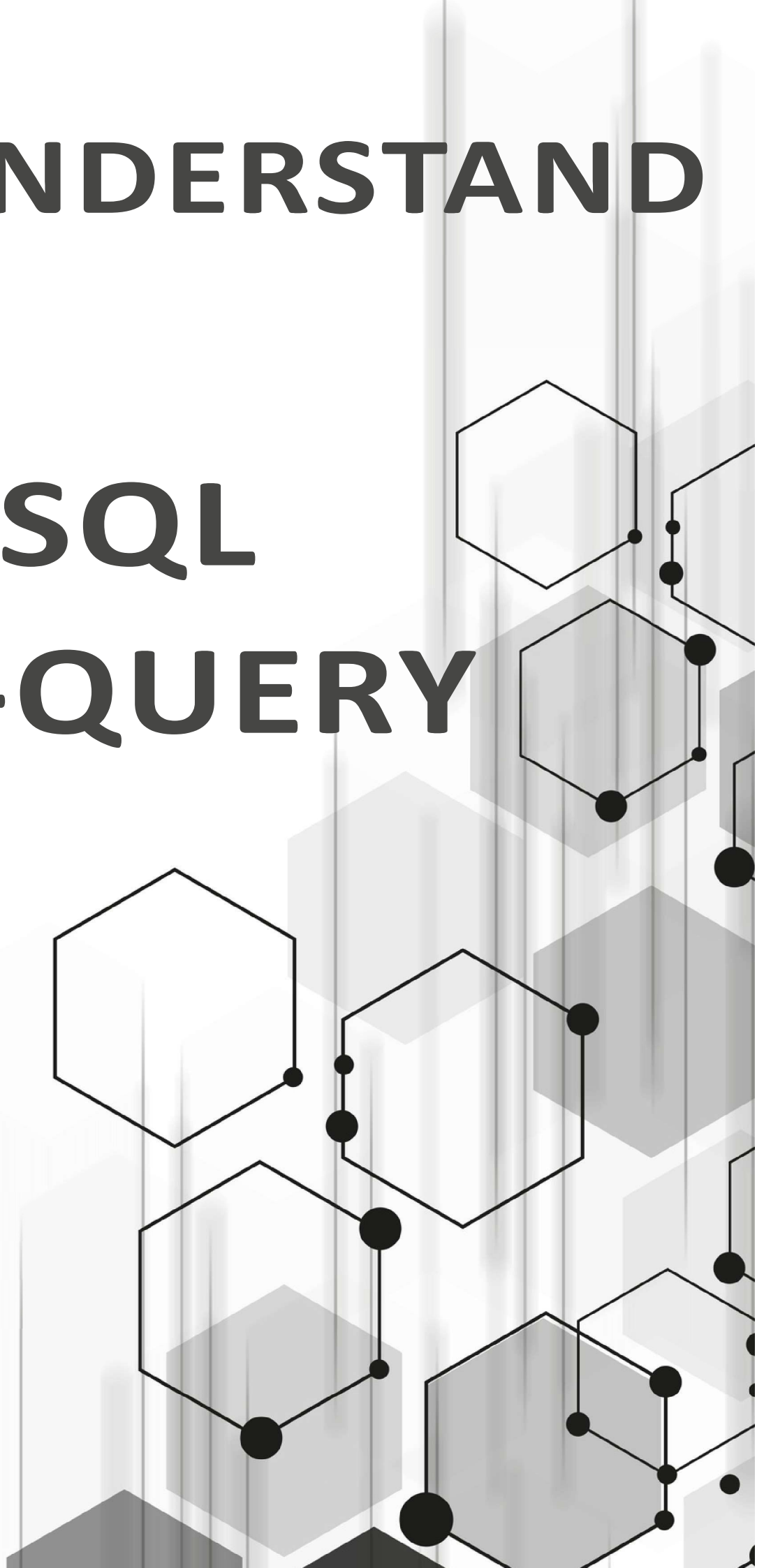
DBMS LAB

# TO UNDERSTAND AND USE SQL SUB-QUERY

LAB-5

Presented To  
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**B-2**



# EXPERIMENT - 5

Title :- To understand and use SQL Sub-Query

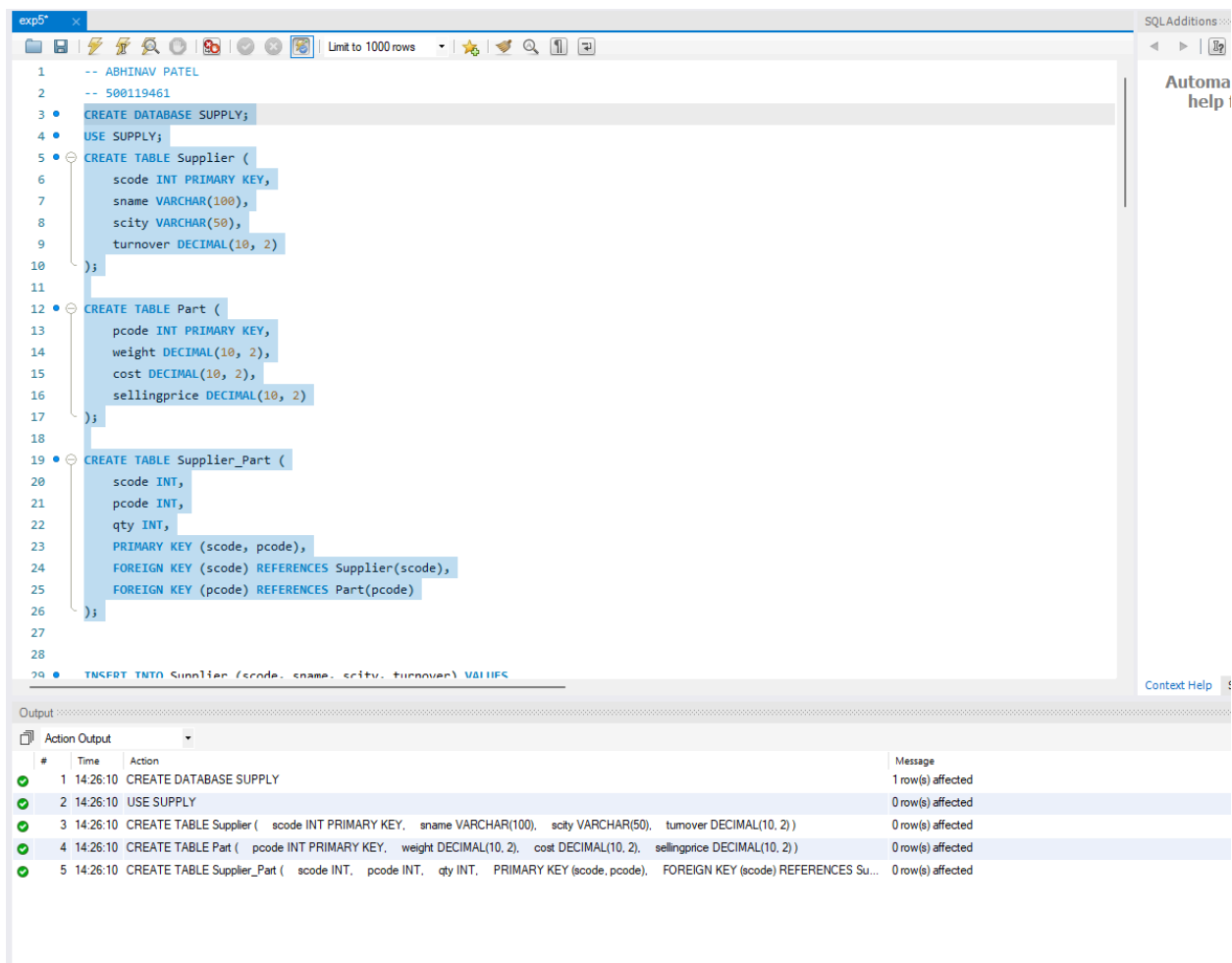
**Objective :-** To understand the use of sql subquery

## 1. Create the following table.

Supplier-(scode,sname,scity,turnover)

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

Supplier\_Part-(scode,pcode,qty)



```
1  -- ABHINAV PATEL
2  -- 500119461
3  CREATE DATABASE SUPPLY;
4  USE SUPPLY;
5  CREATE TABLE Supplier (
6      scode INT PRIMARY KEY,
7      sname VARCHAR(100),
8      scity VARCHAR(50),
9      turnover DECIMAL(10, 2)
10 );
11
12 CREATE TABLE Part (
13     pcode INT PRIMARY KEY,
14     weight DECIMAL(10, 2),
15     cost DECIMAL(10, 2),
16     sellingprice DECIMAL(10, 2)
17 );
18
19 CREATE TABLE Supplier_Part (
20     scode INT,
21     pcode INT,
22     qty INT,
23     PRIMARY KEY (scode, pcode),
24     FOREIGN KEY (scode) REFERENCES Supplier(scode),
25     FOREIGN KEY (pcode) REFERENCES Part(pcode)
26 );
27
28
29 INSERT INTO Supplier (scode, sname, scity, turnover) VALUES
```

Output

#	Time	Action	Message
✓ 1	14:26:10	CREATE DATABASE SUPPLY	1 row(s) affected
✓ 2	14:26:10	USE SUPPLY	0 row(s) affected
✓ 3	14:26:10	CREATE TABLE Supplier ( scode INT PRIMARY KEY, sname VARCHAR(100), scity VARCHAR(50), turnover DECIMAL(10, 2))	0 row(s) affected
✓ 4	14:26:10	CREATE TABLE Part ( pcode INT PRIMARY KEY, weight DECIMAL(10, 2), cost DECIMAL(10, 2), sellingprice DECIMAL(10, 2))	0 row(s) affected
✓ 5	14:26:10	CREATE TABLE Supplier_Part ( scode INT, pcode INT, qty INT, PRIMARY KEY (scode, pcode), FOREIGN KEY (scode) REFERENCES Su...	0 row(s) affected

## 2. Populate the table

- ```
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);
```
- ```
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);
```
- ```
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);
```

| Action Output |                                                                                                                                                                                                                                                     |                   |  |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--|
| Time          | Action                                                                                                                                                                                                                                              | Message           |  |
| 1 14:26:40    | 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); | 5 row(s) affected |  |
| 2 14:26:40    | 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);                                                       | 5 row(s) affected |  |
| 3 14:26:40    | 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);                                                                                                                  | 6 row(s) affected |  |

## 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

The screenshot displays a database IDE interface with a SQL editor at the top and a results/output pane at the bottom.

**SQL Editor:**

```
56 -- Get the supplier number and part number in ascending order of supplier number:--
57
58 • SELECT scode, pcode
59   FROM Supplier_Part
60   ORDER BY scode ASC;
61
62
63 -- Get the details of suppliers who operate from Bombay with a turnover of 50:--
64
65 • SELECT *
66   FROM Supplier
67   WHERE scity = 'Bombay' AND turnover = 50;
68
69
70 -- Get the total number of suppliers:--
71
72 • SELECT COUNT(*) AS Total_Suppliers
73   FROM Supplier;
74
75
76 -- Get the part numbers weighing between 25 and 35:--
77
78 • SELECT pcode
79   FROM Part
80   WHERE weight BETWEEN 25 AND 35;
81
```

**Result Grid:**

Filter Rows: [ ] Edit: [ ] Export/Import: [ ] Wrap Cell Content: [ ]

|   | pcode |
|---|-------|
| 1 |       |
| 2 |       |
| 3 |       |
| 4 |       |
| * | NULL  |

**Output:**

Supplier\_Part 4 Supplier 5 Result 6 Part 7 x

Action Output

| #   | Time     | Action                                                                        | Message           |
|-----|----------|-------------------------------------------------------------------------------|-------------------|
| ✓ 1 | 14:28:32 | SELECT scode, pcode FROM Supplier_Part ORDER BY scode ASC LIMIT 0, 1000       | 6 row(s) returned |
| ✓ 2 | 14:28:32 | SELECT * FROM Supplier WHERE scity = 'Bombay' AND turnover = 50 LIMIT 0, 1000 | 1 row(s) returned |
| ✓ 3 | 14:28:32 | SELECT COUNT(*) AS Total_Suppliers FROM Supplier LIMIT 0, 1000                | 1 row(s) returned |
| ✓ 4 | 14:28:32 | SELECT pcode FROM Part WHERE weight BETWEEN 25 AND 35 LIMIT 0, 1000           | 4 row(s) returned |

```

82
83 -- Get the supplier number whose turnover is NULL:--
84
85 • SELECT scode
86 FROM Supplier
87 WHERE turnover IS NULL;
88
89
90 -- Get the part number that costs 20, 30, or 40 rupees:--
91
92 • SELECT pcode
93 FROM Part
94 WHERE cost IN (20, 30, 40);
95
96
97 -- Get the total quantity of part 2 that is supplied:--
98
99 • SELECT SUM(qty) AS Total_Quantity
100 FROM Supplier_Part
101 WHERE pcode = 2;
102
103
104 -- Get the name of the supplier who supplies part 2:--
105

```

| Result Grid |                | Filter Rows: | Export: | Wrap Cell Content: |
|-------------|----------------|--------------|---------|--------------------|
|             | Total_Quantity |              |         |                    |
| ▶           | 200            |              |         |                    |

| Supplier 8   Part 9   Result 10 × |          |                                                                                    |  |                   |
|-----------------------------------|----------|------------------------------------------------------------------------------------|--|-------------------|
| Output                            |          |                                                                                    |  |                   |
| Action Output                     |          |                                                                                    |  |                   |
| #                                 | Time     | Action                                                                             |  | Message           |
| ✓ 4                               | 14:28:32 | SELECT pcode FROM Part WHERE weight BETWEEN 25 AND 35 LIMIT 0, 1000                |  | 4 row(s) returned |
| ✓ 5                               | 14:28:49 | SELECT scode FROM Supplier WHERE turnover IS NULL LIMIT 0, 1000                    |  | 1 row(s) returned |
| ✓ 6                               | 14:28:49 | SELECT pcode FROM Part WHERE cost IN (20, 30, 40) LIMIT 0, 1000                    |  | 3 row(s) returned |
| ✓ 7                               | 14:28:49 | SELECT SUM(qty) AS Total_Quantity FROM Supplier_Part WHERE pcode = 2 LIMIT 0, 1000 |  | 1 row(s) returned |