

# Advanced Database Management Systems

## Experiment-3

### To understand the SQL sub- query

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#### Batch- 2

```
-- CREATE DATABASE
CREATE DATABASE Experiment3_new;
use Experiment3_new;

CREATE TABLE Supplier (
scode INT PRIMARY KEY,
sname VARCHAR(50),
scity VARCHAR(50),
turnover INT );

CREATE TABLE Part (   pcode
VARCHAR(10) PRIMARY KEY,
    weigh INT,    color
VARCHAR(20),    cost
INT,    sellingprice
INT );

CREATE TABLE Supplier_Part (
    scode INT,    pcode
VARCHAR(10),
    qty INT,
    PRIMARY KEY (scode, pcode),
    FOREIGN KEY (scode) REFERENCES Supplier(scode),
    FOREIGN KEY (pcode) REFERENCES Part(pcode)
);

-- populate Supplier table
INSERT INTO Supplier (scode, sname, scity, turnover)
VALUES (1001, 'ABC Industries', 'Mumbai', 500000),
       (1002, 'XYZ Enterprises', 'Delhi', 700000),
       (1003, 'PQR Corporation', 'Chennai', 800000),
       (1004, 'LMN Ltd', 'Kolkata', 600000);

-- populate Part table
INSERT INTO Part (pcode, weigh, color, cost, sellingprice)
VALUES ('P001', 25, 'Red', 20, 40),
       ('P002', 30, 'Green', 25, 45),
       ('P003', 35, 'Blue', 30, 50),
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        ('P004', 40, 'Yellow', 35, 60);
-- populate Supplier_Part table
INSERT INTO Supplier_Part (scode, pcode, qty)
VALUES (1001, 'P001', 100),
       (1001, 'P002', 200),
       (1002, 'P002', 300),
       (1003, 'P003', 150),
       (1004, 'P004', 250);

-- Queries
-- 1. 1. Get the supplier number and part number in ascending order of
supplier number.
SELECT sp.scode, sp.pcode
FROM Supplier_Part sp
ORDER BY sp.scode ASC;

-- 2. Get the details of supplier who operate from Bombay with turnover 50.
SELECT *
FROM Supplier s
WHERE s.scity = 'Bombay' AND s.turnover = 50;

-- 3. Get the total number of supplier.
SELECT COUNT(*) AS total_suppliers
FROM Supplier;

-- 4. Get the part number weighing between 25 and 35.
SELECT p.pcode
FROM Part p
WHERE p.weigh BETWEEN 25 AND 35;

-- 5. Get the supplier number whose turnover is null.
SELECT scode
FROM Supplier
WHERE turnover IS NULL;

-- 6. Get the part number that cost 20, 30 or 40 rupees.
SELECT pcode
FROM Part
WHERE cost IN (20, 30, 40);

-- 7. Get the total quantity of part 2 that is supplied.
SELECT SUM(qty) as total_quantity
FROM Supplier_Part
WHERE pcode = 'P002';

-- 8. Get the name of supplier who supply part 2.
SELECT sname
FROM Supplier
JOIN Supplier_Part ON Supplier.scode = Supplier_Part.scode
WHERE pcode = 'P002';

-- 9. Get the part number whose cost is greater than the average cost.
SELECT pcode, cost
FROM Part

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WHERE cost > (SELECT AVG(cost) FROM Part);
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-- 10. Get the supplier number and turnover in descending order of turnover
SELECT scode, turnover
FROM Supplier
ORDER BY turnover DESC;
```

**OUTPUT**

Query 1:

	scode	pcode
1	1001	P001
2	1001	P002
3	1002	P002
4	1003	P003
5	1004	P004

Query 2:

scode	sname	scity	turnover
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Query 3:

	total_suppliers
1	4

Query 4:

	pcode
1	P001
2	P002
3	P003

Query 5:

	scode
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Query 6:

	pcode
1	P001
2	P003

Query 7:

	total_quantity
1	500

Query 8:

	sname
1	ABC Industries
2	XYZ Enterprises

Query 9:

	pcode	cost
1	P003	30
2	P004	35

Query 10:

	scode	turnover
1	1003	800000
2	1002	700000
3	1004	600000
4	1001	500000