

EXPERIMENT 5

Title: To understand and use SQL Sub-Query

Objective: To understand the use of sql subquery.

1.

```
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-- Create the Supplier table
CREATE TABLE Supplier (
    scode VARCHAR(10) PRIMARY KEY,
    sname VARCHAR(100) NOT NULL,
    scity VARCHAR(100) NOT NULL,
    turnover DECIMAL(15, 2) NOT NULL
);

-- Create the Part table
CREATE TABLE Part (
    pcode VARCHAR(10) PRIMARY KEY,
    weight DECIMAL(5, 2) NOT NULL, -- Assuming weight in kg
    color VARCHAR(50) NOT NULL,
    cost DECIMAL(10, 2) NOT NULL,
    sellingprice DECIMAL(10, 2) NOT NULL
);
```

```
-- Create the Supplier_Part table
CREATE TABLE Supplier_Part (
    scode VARCHAR(10),
    pcode VARCHAR(10),
    qty INT NOT NULL,
    PRIMARY KEY (scode, pcode),
    FOREIGN KEY (scode) REFERENCES Supplier(scode),
    FOREIGN KEY (pcode) REFERENCES Part(pcode)
);
|
```

2.

```
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-- Insert data into the Supplier table
INSERT INTO Supplier (scode, sname, scity, turnover) VALUES
('S001', 'Supplier A', 'City X', 500000.00),
('S002', 'Supplier B', 'City Y', 750000.00),
('S003', 'Supplier C', 'City Z', 300000.00);

-- Insert data into the Part table
INSERT INTO Part (pcode, weight, color, cost, sellingprice) VALUES
('P001', 2.50, 'Red', 150.00, 200.00),
('P002', 1.00, 'Blue', 100.00, 150.00),
('P003', 3.00, 'Green', 200.00, 250.00);

-- Insert data into the Supplier_Part table
INSERT INTO Supplier_Part (scode, pcode, qty) VALUES
('S001', 'P001', 100),
('S001', 'P002', 200),
('S002', 'P003', 150),
('S003', 'P001', 250);
```

3.

```
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-- 1
SELECT sp.scode, sp.pcode FROM Supplier_Part sp ORDER BY sp.scode ASC;

-- 2
SELECT * FROM Supplier WHERE scity = 'Bombay' AND turnover = 50;

-- 3
SELECT COUNT(*) AS total_suppliers FROM Supplier;

-- 4
SELECT pcode FROM Part WHERE weight BETWEEN 25 AND 35;

-- 5
SELECT scode FROM Supplier WHERE turnover IS NULL;

-- 6
SELECT pcode FROM Part WHERE cost IN (20, 30, 40);

-- 7
SELECT SUM(qty) AS total_quantity FROM Supplier_Part WHERE pcode = 'P002';

-- 8
SELECT s.sname FROM Supplier s JOIN Supplier_Part sp ON s.scode = sp.scode WHERE sp.pcode = 'P002';

-- 9
SELECT pcode FROM Part WHERE cost > (SELECT AVG(cost) FROM Part);

-- 10
SELECT scode, turnover FROM Supplier ORDER BY turnover DESC;
|
```