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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)
ANSWER:-
-- Creating the Supplier table
create table supplier (
    scode int primary key,
    sname varchar(50),
    scity varchar(50),
    turnover int
);
```

-- Creating the Part table

```
create table part (
  pcode int primary key,
  weigh int,
  color varchar(20),
  cost int,
  sellingprice int
);
-- Creating the Supplier_Part table
create table supplier_part (
  scode int,
  pcode int,
  qty int,
  foreign key (scode) references supplier(scode),
  foreign key (pcode) references part(pcode)
);
```

```
Query OK, 0 rows affected (0.09 sec)
mysql> describe supplier;
 Field
                           Null | Key |
                                         Default
             Type
 scode
             int
                            NO
                                   PRI
                                         NULL
 sname
             varchar(50)
                            YES
                                         NULL
 scity
             varchar(50)
                            YES
                                         NULL
 turnover
                            YES
                                         NULL
             int
 rows in set (0.03 sec)
mysql> describe part;
 Field
                              | Null | Key | Default | Extra
                 Type
 pcode
                 int
                                NO
                                             NULL
 weigh
                 int
                                YES
                                             NULL
                                YES
 color
                 varchar(20)
                                             NULL
                                YES
 cost
                 int
                                             NULL
 sellingprice
                 int
                                YES
                                             NULL
 rows in set (0.00 sec)
mysql> create supplier_part;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual
 at line 1
mysql> describe supplier_part;
 Field |
          Type | Null | Key | Default | Extra
 scode
          int
                 YES
                        MUL
                               NULL
                 YES
                        MUL
 pcode
          int
                               NULL
                 YES
 qty
          int
                               NULL
 rows in set (0.00 sec)
```

2. Populate the table

-- Populating the Supplier table

insert into supplier (scode, sname, scity, turnover) values

- (1, 'supplier1', 'bombay', 50),
- (2, 'supplier2', 'delhi', 100),
- (3, 'supplier3', 'bangalore', null);
- -- Populating the Part table

```
insert into part (pcode, weigh, color, cost, sellingprice) values (1, 20, 'red', 20, 30), (2, 30, 'blue', 40, 60), (3, 25, 'green', 30, 50);

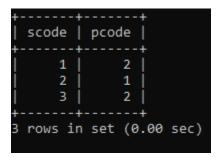
-- Populating the Supplier_Part table insert into supplier_part (scode, pcode, qty) values (1, 2, 10), (2, 1, 20), (3, 2, 30);
```

```
mysql> select * from supplier;
                       scity
 scode
        sname
                                   turnover
                                          50
          supplier1
                       bombay
      2
          supplier2
                       delhi
                                         100
          supplier3 | bangalore
                                        NULL
 rows in set (0.00 sec)
mysql> select * from part;
        | weigh | color | cost | sellingprice
 pcode
             20
                             20
                                             30
      1
                  red
                             40
             30
                  blue
                                             60
      3
             25
                  green
                             30
                                             50
 rows in set (0.00 sec)
mysql> select * from <u>^</u>C
mysql> select * from supplier_part;
 scode | pcode | qty
      1
                     10
                     20
      3
              2
                     30
 rows in set (0.00 sec)
```

3. Write appropriate SQL Statement for the following:

1. Get the supplier number and part number in ascending order of supplier number.

select scode, pcode from supplier_part order by scode;



3. Get the details of supplier who operate from Bombay with turnover 50.

select * from supplier where scity = 'bombay' and turnover = 50;

4. Get the total number of supplier.

select count(*) as total_suppliers from supplier;

```
+-----+
| total_suppliers |
+-----+
| 3 |
+-----+
1 row in set (0.04 sec)
```

5. Get the part number weighing between 25 and 35.

select pcode from part where weigh between 25 and 35;

```
+----+
| pcode |
+-----+
| 2 |
| 3 |
+----+
2 rows in set (0.00 sec)
```

6. Get the supplier number whose turnover is null.

select scode from supplier where turnover is null;

```
+----+
| scode |
+-----+
| 3 |
+-----+
1 row in set (0.01 sec)
```

7. Get the part number that cost 20, 30 or 40 rupees.

select pcode from part where cost in (20, 30, 40);

```
+----+
| pcode |
+----+
| 1 |
| 2 |
| 3 |
+----+
3 rows in set (0.00 sec)
```

8. Get the total quantity of part 2 that is supplied.

select sum(qty) as total_qty from supplier_part where pcode = 2;

```
+-----+
| total_qty |
+------+
| 40 |
+-----+
1 row in set (0.00 sec)
```

9. Get the name of supplier who supply part 2.

select sname from supplier where scode in (select scode from supplier_part where pcode = 2);

10. Get the part number whose cost is greater than the average cost.

select pcode from part where cost > (select avg(cost) from part);

```
+----+
| pcode |
+-----+
| 2 |
+-----+
1 row in set (0.00 sec)
```

10. Get the supplier number and turnover in descending order of turnover.

select scode, turnover from supplier order by turnover desc;

