

Name-Nilabh Sharma

Roll-R2142230020

SAP-500120183

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	Type	Null	Key	Default	Extra
scode	int	NO	PRI	NULL	
sname	varchar(50)	YES		NULL	
scity	varchar(50)	YES		NULL	
turnover	int	YES		NULL	

4 rows in set (0.03 sec)

mysql> describe part;

Field	Type	Null	Key	Default	Extra
pcode	int	NO	PRI	NULL	
weigh	int	YES		NULL	
color	varchar(20)	YES		NULL	
cost	int	YES		NULL	
sellingprice	int	YES		NULL	

5 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	
pcode	int	YES	MUL	NULL	
qty	int	YES		NULL	

3 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;
+-----+-----+-----+-----+
| scode | sname   | scity   | turnover |
+-----+-----+-----+-----+
| 1     | supplier1 | bombay  | 50       |
| 2     | supplier2 | delhi   | 100      |
| 3     | supplier3 | bangalore | NULL     |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> select * from part;
+-----+-----+-----+-----+-----+
| pcode | weigh | color | cost | sellingprice |
+-----+-----+-----+-----+-----+
| 1     | 20    | red   | 20   | 30           |
| 2     | 30    | blue  | 40   | 60           |
| 3     | 25    | green | 30   | 50           |
+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql> select * from ^C
mysql> select * from supplier_part;
+-----+-----+-----+
| scode | pcode | qty |
+-----+-----+-----+
| 1     | 2     | 10 |
| 2     | 1     | 20 |
| 3     | 2     | 30 |
+-----+-----+-----+
3 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;

scode	pcode
1	2
2	1
3	2

3 rows in set (0.00 sec)

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

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

scode	sname	scity	turnover
1	supplier1	bombay	50

1 row in set (0.00 sec)

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);

```

+-----+
| sname |
+-----+
| supplier1 |
| supplier3 |
+-----+
2 rows in set (0.01 sec)

```

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;

```
+-----+-----+
| scode | turnover |
+-----+-----+
|      2 |      100 |
|      1 |       50 |
|      3 |      NULL |
+-----+-----+
3 rows in set (0.00 sec)
```