

## LAB 6

### SUPPLIER DATABASE

```
create database supplier;
```

```
use supplier;
```

```
CREATE TABLE Supplier (  
    sid INT PRIMARY KEY,  
    sname VARCHAR(50),  
    city VARCHAR(50)  
);
```

```
CREATE TABLE Parts (  
    pid INT PRIMARY KEY,  
    pname VARCHAR(50),  
    color VARCHAR(20)  
);
```

```
CREATE TABLE Catalog (  
    sid INT,  
    pid INT,  
    cost DECIMAL(10,2),  
    PRIMARY KEY (sid, pid),  
    FOREIGN KEY (sid) REFERENCES Supplier(sid),  
    FOREIGN KEY (pid) REFERENCES Parts(pid)  
);
```

INSERT INTO Supplier (sid, sname, city) VALUES

(1, 'Acme Widget Suppliers','Bengaluru'),  
(2, 'Global Parts Ltd','Mumbai'),  
(3, 'Sunrise Traders','Chennai'),  
(4, 'NorthStar Components','Hyderabad'),  
(5, 'RapidSupply Co', 'Pune');

INSERT INTO Parts (pid, pname, color) VALUES

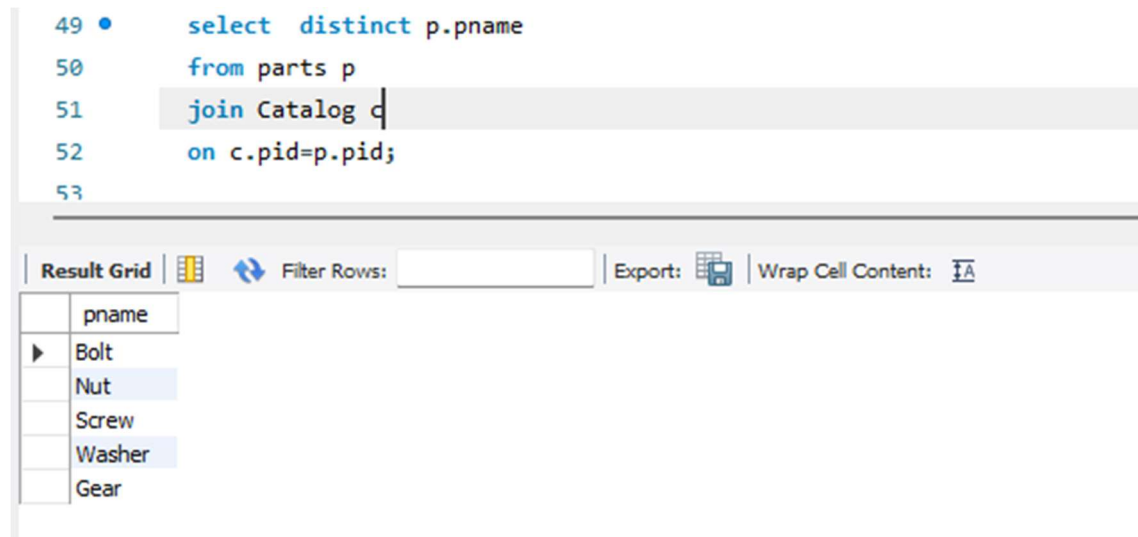
(101, 'Bolt', 'Red'),  
(102, 'Nut', 'Blue'),  
(103, 'Screw', 'Red'),  
(104, 'Washer', 'Green'),  
(105, 'Gear', 'Blue');

INSERT INTO Catalog (sid, pid, cost) VALUES

(1, 101, 12.50),  
(1, 102, 10.00),  
(2, 101, 11.00),  
(2, 103, 9.50),  
(3, 104, 8.00),  
(3, 103, 9.00),  
(4, 105, 15.75),  
(4, 101, 13.25),  
(5, 102, 10.50),  
(5, 105, 14.00);

3.

```
select distinct p.pname  
from parts p  
join Catalog c  
on c.pid=p.pid;
```



4.

```
SELECT s.sname  
FROM Supplier s  
JOIN Catalog c  
ON s.sid = c.sid  
GROUP BY s.sname  
HAVING COUNT(DISTINCT c.pid) = (  
    SELECT COUNT(*)  
    FROM Parts  
);
```

```

56 • SELECT s.sname
57 FROM Supplier s
58 JOIN Catalog c
59     ON s.sid = c.sid
60 GROUP BY s.sname
61 HAVING COUNT(DISTINCT c.pid) = (
62     SELECT COUNT(*)
63     FROM Parts
64 );
65

```

Result Grid   Filter Rows:  Export:  Wrap Cell Content: 

sname
-------

5.

```

SELECT s.sname
FROM Supplier s
JOIN Catalog c ON s.sid = c.sid
JOIN Parts p  ON c.pid = p.pid AND p.color = 'Red'
GROUP BY s.sname
HAVING COUNT(DISTINCT p.pid) = (
    SELECT COUNT(*)
    FROM Parts
    WHERE color = 'Red'
);

```

```

67 • SELECT s.sname
68 FROM Supplier s
69 JOIN Catalog c ON s.sid = c.sid
70 JOIN Parts p ON c.pid = p.pid AND p.color = 'Red'
71 GROUP BY s.sname
72 HAVING COUNT(DISTINCT p.pid) = (
73     SELECT COUNT(*)
74     FROM Parts
75     WHERE color = 'Red'
76 );
77

```

Result Grid			Filter Rows:		Export:		Wrap Cell Content:	
	sname							
▶	Global Parts Ltd							

6.

select p.pname

from parts p

join catalog c on p.pid=c.pid

join supplier s on p.pid=s.sid

where s.sname='ACME widget suppliers' and not exists (

select 1

from catalog c2

join supplier s2 on c2.sid=s2.sid

where c2.pid=p.pid

and s2.sname<>'ACME Widget suppliers');

```

77 • select p.pname
78     from parts p
79     join catalog c on p.pid=c.pid
80     join supplier s on p.pid=s.sid
81     where s.sname='ACME widget suppliers' and not exists (
82         select 1
83         from catalog c2
84         join supplier s2 on c2.sid=s2.sid
85         where c2.pid=p.pid
86         and s2.sname<>'ACME Widget suppliers');
87
88

```

Result Grid		Filter Rows: <input type="text"/>	Export:	Wrap Cell Content:
<input type="text" value="pname"/>				

7.

```

SELECT DISTINCT c.sid
FROM Catalog c
WHERE c.cost > (
    SELECT AVG(c2.cost)
    FROM Catalog c2
    WHERE c2.pid = c.pid
);

```

```

99 • SELECT DISTINCT c.sid
100 FROM Catalog c
101 WHERE c.cost > (
102     SELECT AVG(c2.cost)
103     FROM Catalog c2
104     WHERE c2.pid = c.pid
105 );
106
107

```

Result Grid

	sid
▶	1
	2
	4
	5

8.

```

SELECT P.pname,
       S.sname
FROM Parts P
JOIN Catalog C ON P.pid = C.pid
JOIN Supplier S ON C.sid = S.sid
WHERE C.cost = (
    SELECT MAX(C2.cost)
    FROM Catalog C2
    WHERE C2.pid = P.pid
);

```

```

110 • SELECT P.pname,
111         S.sname
112 FROM Parts P
113 JOIN Catalog C ON P.pid = C.pid
114 JOIN Supplier S ON C.sid = S.sid
115 WHERE C.cost = (
116     SELECT MAX(C2.cost)
117     FROM Catalog C2
118     WHERE C2.pid = P.pid
119 );
120

```

Result Grid   Filter Rows:  Export:  Wrap Cell Content: 

	pname	sname
▶	Bolt	NorthStar Components
	Nut	RapidSupply Co
	Screw	Global Parts Ltd
	Washer	Sunrise Traders
	Gear	NorthStar Components