```sql
CREATE DATABASE Supply;

USE Supply;

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 VALUES
(1,'Acme Widget Suppliers','Mumbai'),
(2,'Global Traders','Delhi'),
(3,'Prime Industries','Chennai'),
(4,'Quality Supplies Co','Bangalore'),
(5,'Universal Corp','Hyderabad');


INSERT INTO Parts VALUES
(101,'Bolt','Red'),
```
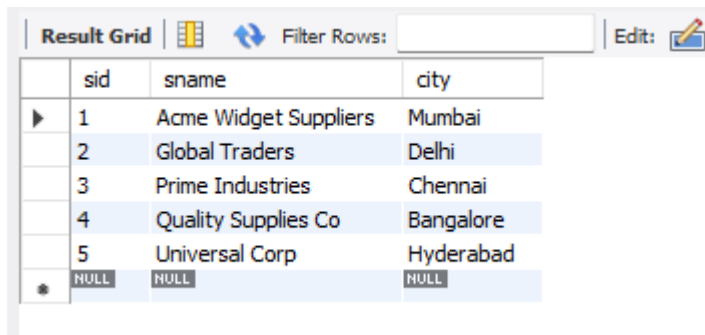
(102,'Nut','Blue'),

(103,'Screw','Red'),

(104,'Gear','Green'),

(105,'Washer','Yellow');

INSERT INTO Catalog VALUES

(1,101,50),
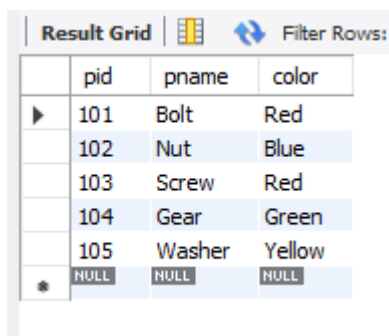
(2,102,40),

(3,103,60),

(4,104,55),

(5,105,45);

select * from supplier;

	sid	sname	city
▶	1	Acme Widget Suppliers	Mumbai
	2	Global Traders	Delhi
	3	Prime Industries	Chennai
	4	Quality Supplies Co	Bangalore
	5	Universal Corp	Hyderabad
*	NULL	NULL	NULL

select * from parts;

	pid	pname	color
▶	101	Bolt	Red
	102	Nut	Blue
	103	Screw	Red
	104	Gear	Green
	105	Washer	Yellow
*	NULL	NULL	NULL

select * from catalog;

sid	pid	cost
1	101	50.00
2	102	40.00
3	103	60.00
4	104	55.00
5	105	45.00
NULL	NULL	NULL

select distinct p.pname

from parts p, supplier s;

```
48 •    select distinct  p.pname
49      from parts p, supplier s;
50
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: A

pname
Washer
Gear
Screw
Nut
Bolt

select s.sname

from supplier s

join catalog c on s.sid = c.sid

group by s.sid, s.sname

having count(distinct pid) = (select count(*) from parts);

```
51 •    select s.sname
52      from supplier s
53      join catalog c on s.sid = c.sid
54      group by s.sid, s.sname
55      having count(distinct pid) = (select count(*) from parts);
56
```

Result Grid | Filter Rows: | Export: | Wrap Cell C

sname

select s.sname

from supplier s

join catalog c on s.sid = c.sid

join parts p on p.pid = c.pid

where color = "Red"

group by s.sid, s.sname

having count(distinct p.pid) = (select count(*) from parts where color = "Red");

```
57  ●     select s.sname
58        from supplier s
59        join catalog c on s.sid = c.sid
60        join parts p on p.pid = c.pid
61        where color = "Red"
62        group by s.sid, s.sname
63        having count(distinct p.pid) = (select count(*) from parts where color = "Red");
64
```

| Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

sname

select p.pname

from parts p

join catalog c on p.pid = c.pid

join supplier s on c.sid = s.sid

where s.sname = "Acme Widget Suppliers"

and p.pid not in (select pid from catalog

where sid <>(select sid from supplier where sname = "Acme Widget Supplier"));

```
65  ●     select p.pname
66        from parts p
67        join catalog c on p.pid = c.pid
68        join supplier s on c.sid = s.sid
69        where s.sname = "Acme Widget Suppliers"
70    ⊖   and p.pid not in (select pid from catalog
71    └     where sid <>(select sid from supplier where sname = "Acme Widget Supplier"));
```

| Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

pname
Bolt

select c.sid, c.pid

from catalog c

where c.cost >(select AVG(cost)

from catalog c1

where c1.pid=c.pid);

```
69 •     select c.sid, c.pid
70       from catalog c
71   ⊖   where c.cost >(select AVG(cost)
72       from catalog c1
73       where c1.pid=c.pid);
74
```

sid	pid
NULL	NULL

select s.sname

from parts p

join catalog c on c.pid = p.pid

join supplier s on c.sid = s.sid

order by c.cost desc;

```
75 •     select s.sname
76       from parts p
77       join catalog c on c.pid = p.pid
78       join supplier s on c.sid = s.sid
79       order by c.cost desc;
80
81
```

sname
Prime Industries
Quality Supplies Co
Acme Widget Suppliers
Universal Corp
Global Traders