

```
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 INT,
```

```
    PRIMARY KEY (sid, pid),
```

```
    FOREIGN KEY (sid) REFERENCES Supplier(sid),
```

```
    FOREIGN KEY (pid) REFERENCES Parts(pid)
```

```
);
```

```
INSERT INTO Supplier VALUES
```

```
(1, 'Acme Widget Suppliers', 'Delhi'),
```

```
(2, 'Global Traders', 'Mumbai'),
```

```
(3, 'Super Supplies', 'Chennai');
```

```
INSERT INTO Parts VALUES
```

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

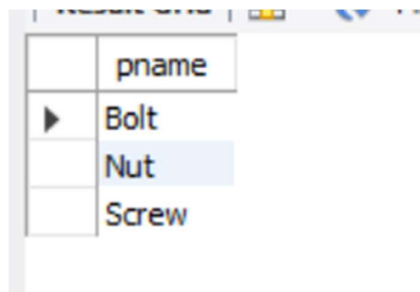
```
INSERT INTO Catalog VALUES
```

```
(1, 101, 50),  
(1, 102, 60),  
(2, 101, 55),  
(2, 103, 70),  
(3, 101, 45),  
(3, 103, 65);
```

```
SELECT DISTINCT pname
```

```
FROM Parts, Catalog
```

```
WHERE Parts.pid = Catalog.pid;
```



|   | pname |
|---|-------|
| ▶ | Bolt  |
|   | Nut   |
|   | Screw |

```
SELECT sname
```

```
FROM Supplier s, Catalog c
```

```
WHERE s.sid = c.sid
```

```
GROUP BY s.sid, sname
```

```
HAVING COUNT(c.pid) = (SELECT COUNT(*) FROM Parts);
```

| Result Grid |       |
|-------------|-------|
|             | sname |

```

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

```

| Result Grid |                | Filter Rows: |
|-------------|----------------|--------------|
|             | sname          |              |
| ▶           | Global Traders |              |
|             | Super Supplies |              |

```

SELECT p.pname
FROM Parts p, Catalog c, Supplier s
WHERE p.pid = c.pid
      AND c.sid = s.sid
      AND s.sname = 'Acme Widget Suppliers'
      AND p.pid NOT IN (
        SELECT pid FROM Catalog
        WHERE sid <> s.sid
      );

```

|   |       |
|---|-------|
|   | pname |
| ▶ | Nut   |

```

SELECT DISTINCT c.sid
FROM Catalog c,
      (SELECT pid, AVG(cost) AS avg_cost
       FROM Catalog
       GROUP BY pid) x
WHERE c.pid = x.pid
      AND c.cost > x.avg_cost;

```

|   |     |
|---|-----|
|   | sid |
| ▶ | 2   |

```

SELECT p.pname, s.sname
FROM Parts p, Catalog c, Supplier s
WHERE p.pid = c.pid
      AND s.sid = c.sid
      AND c.cost = (
      SELECT MAX(cost)
      FROM Catalog
      WHERE pid = p.pid
      );

```

|   | pname | sname                 |
|---|-------|-----------------------|
| ▶ | Nut   | Acme Widget Suppliers |
|   | Bolt  | Global Traders        |
|   | Screw | Global Traders        |