

```
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	
	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