

SUPPLIER

```
CREATE DATABASE TEJAS;

USE TEJAS;

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', 'Delhi'),
(2, 'Best Supplies', 'Mumbai'),
```

```
(3, 'Quality Parts Co', 'Delhi');
```

```
INSERT INTO Parts VALUES
```

```
(101, 'Bolt', 'red'),
```

```
(102, 'Nut', 'blue'),
```

```
(103, 'Screw', 'red');
```

```
INSERT INTO Catalog VALUES
```

```
(1,101,50),
```

```
(1,103,70),
```

```
(2,101,55),
```

```
(2,102,40),
```

```
(3,101,60),
```

```
(3,102,42),
```

```
(3,103,75);
```

QUERIES

```
SELECT pname
```

```
FROM Parts, Catalog
```

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

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

```
SELECT sname
```

```
FROM Supplier S
```

```
WHERE NOT EXISTS (
```

```
SELECT *
```

```
FROM Parts  
  
WHERE pid NOT IN (  
  
    SELECT pid FROM Catalog WHERE sid = S.sid  
  
)  
  
);
```

| | sname |
|---|------------------|
| ▶ | Quality Parts Co |

```
SELECT sname  
  
FROM Supplier S  
  
WHERE NOT EXISTS (  
  
    SELECT *  
  
    FROM Parts  
  
    WHERE color = 'red'  
  
    AND pid NOT IN (  
  
        SELECT pid FROM Catalog WHERE sid = S.sid  
  
)  
  
);
```

| | sname |
|---|-----------------------|
| ▶ | Acme Widget Suppliers |
| | Quality Parts Co |

```
SELECT pname  
  
FROM Parts  
  
WHERE pid IN (  
  
    SELECT pid
```

```
FROM Catalog

WHERE sid = (SELECT sid FROM Supplier WHERE sname='Acme Widget Suppliers')

GROUP BY pid

HAVING COUNT(*) = 1

);
```

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

```
SELECT C.sid

FROM Catalog C

GROUP BY C.sid, C.pid, C.cost

HAVING C.cost >

()

SELECT AVG(cost)

FROM Catalog

WHERE pid = C.pid

);
```

| | sid |
|---|-----|
| ▶ | 3 |
| | 3 |
| | 3 |

```
SELECT pid, sid, cost

FROM Catalog C

WHERE cost = (

SELECT MAX(cost)

FROM Catalog
```

```
 WHERE pid = C.pid  
);
```

| pid | sid | cost |
|------|------|-------|
| 101 | 3 | 60.00 |
| 102 | 3 | 42.00 |
| 103 | 3 | 75.00 |
| NULL | NULL | NULL |