

```
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', 'New York'),  
(2, 'Best Parts Co', 'London'),  
(3, 'Quick Supplies', 'Paris'),  
(4, 'Global Hardware', 'Tokyo');
```

INSERT INTO Parts VALUES

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

INSERT INTO Catalog VALUES

(1, 101, 20.00),

(1, 102, 25.00),

(2, 101, 22.00),

(2, 103, 30.00),

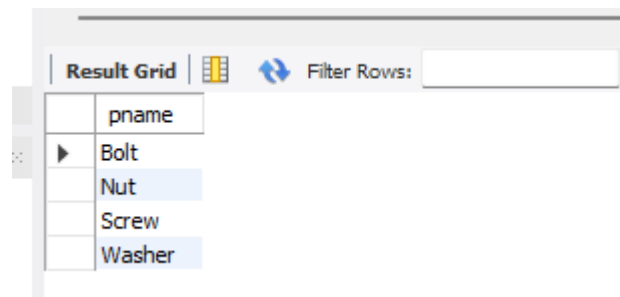
(3, 101, 18.00),

(3, 104, 28.00);

SELECT DISTINCT pname

FROM Parts p,Catalog c

WHERE p.pid = c.pid;



The screenshot shows a database query result grid. The grid has a header row with the column name 'pname'. Below the header, there are four rows of data: 'Bolt', 'Nut', 'Screw', and 'Washer'. The grid is titled 'Result Grid' and has a 'Filter Rows' button.

pname
Bolt
Nut
Screw
Washer

SELECT sname

FROM Supplier s

WHERE NOT EXISTS (

SELECT \*

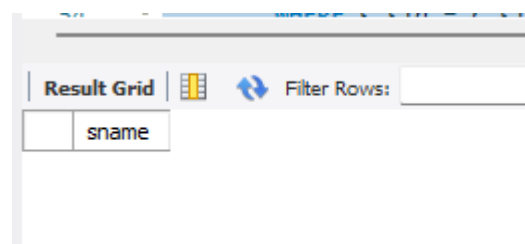
FROM Parts p

WHERE NOT EXISTS (

SELECT \*

FROM Catalog c

WHERE s.sid = c.sid AND c.pid = p.pid));



The screenshot shows a database query result grid. The grid has a header row with the column name 'sname'. Below the header, there are no rows of data visible. The grid is titled 'Result Grid' and has a 'Filter Rows' button.

sname
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```

SELECT sname
FROM Supplier s
WHERE NOT EXISTS (
    SELECT *
    FROM Parts p
    WHERE p.color = 'Red'
    AND NOT EXISTS (
        SELECT *
        FROM Catalog c
        WHERE c.sid = s.sid AND c.pid = p.pid));

```

Result Grid		Filter Rows:
	sname	
▶	Best Parts Co	

```

SELECT pname
FROM Parts p, Catalog c, Supplier s
WHERE p.pid = c.pid
AND s.sid = c.sid
AND s.sname = 'Acme Widget Suppliers'
AND NOT EXISTS (
    SELECT *
    FROM Catalog c2, Supplier s2
    WHERE c2.pid = p.pid
    AND s2.sid = c2.sid
    AND s2.sname <> 'Acme Widget Suppliers');

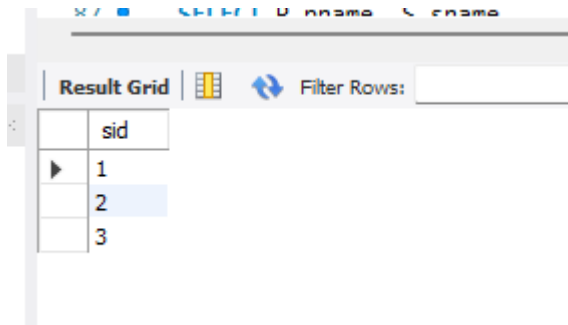
```

Result Grid		Filter Rows:
	pname	
▶	Nut	

```

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

```



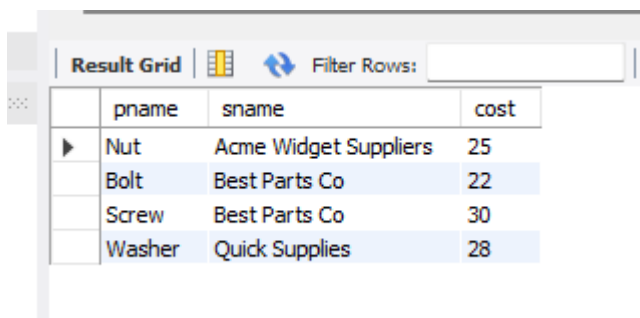
The screenshot shows a database query result grid. The grid has a single column labeled 'sid'. It contains three rows with values 1, 2, and 3. The row with value 2 is highlighted in blue. Above the grid, there is a 'Result Grid' tab and a 'Filter Rows:' input field.

sid
1
2
3

```

SELECT p.pname, s.sname, c.cost
FROM Parts p, Supplier s, Catalog c
WHERE p.pid = c.pid
AND s.sid = c.sid
AND c.cost = (
    SELECT MAX(c2.cost)
    FROM Catalog c2
    WHERE c2.pid=c.pid);

```



The screenshot shows a database query result grid. The grid has three columns labeled 'pname', 'sname', and 'cost'. It contains four rows of data. The row with 'Bolt' is highlighted in blue. Above the grid, there is a 'Result Grid' tab and a 'Filter Rows:' input field.

pname	sname	cost
Nut	Acme Widget Suppliers	25
Bolt	Best Parts Co	22
Screw	Best Parts Co	30
Washer	Quick Supplies	28