

# Symmetric Pairs

You are given a table, *Functions*, containing two columns: *X* and *Y*.

| Column   | Type    |
|----------|---------|
| <i>X</i> | Integer |
| <i>Y</i> | Integer |

Two pairs  $(X_1, Y_1)$  and  $(X_2, Y_2)$  are said to be *symmetric pairs* if  $X_1 = Y_2$  and  $X_2 = Y_1$ .

Write a query to output all such *symmetric pairs* in ascending order by the value of *X*. List the rows such that  $X_1 \leq Y_1$ .

### Sample Input

| <i>X</i> | <i>Y</i> |
|----------|----------|
| 20       | 20       |
| 20       | 20       |
| 20       | 21       |
| 23       | 22       |
| 22       | 23       |
| 21       | 20       |

### Sample Output

```
20 20
20 21
22 23
```

Solution:

```
select a.x,a.y
from Functions a
Join functions b on a.x =b.y and b.x =a.y
group by a.x,a.y
  having count(a.x)>1 or a.x<a.y
order by a.x
```