

Problem List

DescriptionEditorSolutionsSubmissions

2480. Form a Chemical Bond

Premium

Solved

EasyTopics

SQL SchemaPandas Schema

Table: Elements

Column Name	Type
symbol	varchar
type	enum
electrons	int

symbol is the primary key (column with unique values) for this table.  
Each row of this table contains information of one element.  
type is an ENUM (category) of type ('Metal', 'Nonmetal', 'Noble')  
- If type is Noble, electrons is 0.  
- If type is Metal, electrons is the number of electrons that one atom of this element can give.  
- If type is Nonmetal, electrons is the number of electrons that one atom of this element needs.

Two elements can form a bond if one of them is 'Metal' and the other is 'Nonmetal'.

Write a solution to find all the pairs of elements that can form a bond.

Return the result table in any order.

The result format is in the following example.

Example 1:

Input:

Elements table:

symbol	type	electrons
He	Noble	0
Na	Metal	1
Ca	Metal	2
La	Metal	3
Cl	Nonmetal	1
O	Nonmetal	2
N	Nonmetal	3

Output:

metal	nonmetal
La	Cl
Ca	Cl
Na	Cl
La	O
Ca	O
Na	O
La	N
Ca	N
Na	N

Explanation:

Metal elements are La, Ca, and Na.  
Nonmeal elements are Cl, O, and N.  
Each Metal element pairs with a Nonmetal element in the output table.

Code

MySQLAuto

```
1 # Write your MySQL query statement below
2
3 SELECT
4     a.symbol AS metal,
5     b.symbol AS nonmetal
6 FROM
7     Elements as a,
8     Elements as b
9 WHERE
10     a.type = "Metal" and b.type = "Nonmetal";
11
```

SavedLn 9, Col 6

TestcaseTest Result

AcceptedRuntime: 135 ms

Case 1

Input

Elements =

symbol	type	electrons
He	Noble	0
Na	Metal	1
Ca	Metal	2
La	Metal	3
Cl	Nonmetal	1
O	Nonmetal	2
N	Nonmetal	3

View more

Seen this question in a real interview before?

1/5

YesNo

Accepted4KSubmissions5.4KAcceptance Rate74.3%

Topics

Discussion (1)

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Output