Problem 1951: All the Pairs With the Maximum Number of Common Followers

Problem Information

Difficulty: Medium
Acceptance Rate: 0.00%
Paid Only: No

Problem Description

Table:

Relations

+-------------+------+ | Column Name | Type | +-------------+------+ | user_id | int | | follower_id | int | +-------------+------+ (user_id, follower_id) is the primary key (combination of columns with unique values) for this table. Each row of this table indicates that the user with ID follower_id is following the user with ID user_id.

Write a solution to find all the pairs of users with the maximum number of common followers. In other words, if the maximum number of common followers between any two users is

maxCommon

, then you have to return all pairs of users that have

maxCommon

common followers.

The result table should contain the pairs

user1_id

and

user2_id

where

user1_id < user2_id

.

Return the result table in

any order

.

The result format is in the following example.

Example 1:

Input:

Relations table: +---------+-------------+ | user_id | follower_id | +---------+-------------+ | 1 | 3 | | 2 | 3 | | 7 | 3 | | 1 | 4 | | 2 | 4 | | 7 | 4 | | 1 | 5 | | 2 | 6 | | 7 | 5 | +---------+-------------+

Output:

+----------+----------+ | user1_id | user2_id | +----------+----------+ | 1 | 7 | +----------+----------+

Explanation:

Users 1 and 2 have two common followers (3 and 4). Users 1 and 7 have three common followers (3, 4, and 5). Users 2 and 7 have two common followers (3 and 4). Since the maximum number of common followers between any two users is 3, we return all pairs of users with three common followers, which is only the pair (1, 7). We return the pair as (1, 7), not as (7, 1). Note that we do not have any information about the users that follow users 3, 4, and 5, so we consider them to have 0 followers.

Code Snippets

MySQL:

```
# Write your MySQL query statement below
```

MS SQL Server:

```
/* Write your T-SQL query statement below */
```

PostgreSQL:

```
-- Write your PostgreSQL query statement below
```

Oracle:

```
/* Write your PL/SQL query statement below */
```

Pandas:

```
import pandas as pd

def find_pairs(relations: pd.DataFrame) -> pd.DataFrame:
```

Solutions

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