

# Problem 1949: Strong Friendship

## Problem Information

**Difficulty:** Medium

**Acceptance Rate:** 0.00%

**Paid Only:** No

## Problem Description

Table:

Friendship

+-----+-----+ | Column Name | Type | +-----+-----+ | user1\_id | int | | user2\_id | int |  
+-----+-----+ (user1\_id, user2\_id) is the primary key (combination of columns with  
unique values) for this table. Each row of this table indicates that the users user1\_id and  
user2\_id are friends. Note that user1\_id < user2\_id.

A friendship between a pair of friends

x

and

y

is

strong

if

x

and

y

have

at least three

common friends.

Write a solution to find all the

strong friendships

Note that the result table should not contain duplicates with

user1\_id < user2\_id

Return the result table in

any order

The result format is in the following example.

Example 1:

Input:

Friendship table: +-----+-----+ | user1\_id | user2\_id | +-----+-----+ | 1 | 2 | | 1 | 3 | |  
2 | 3 | | 1 | 4 | | 2 | 4 | | 1 | 5 | | 2 | 5 | | 1 | 7 | | 3 | 7 | | 1 | 6 | | 3 | 6 | | 2 | 6 | +-----+-----+

Output:

| +-----+ | -----+ | user1_id   user2_id   common_friend | +-----+ |
|---------|--------|-------------------------------------|---------|
| +-----+ | -----+ | 1   2   4     1   3   3   +-----+   | -----+  |

**Explanation:**

Users 1 and 2 have 4 common friends (3, 4, 5, and 6). Users 1 and 3 have 3 common friends (2, 6, and 7). We did not include the friendship of users 2 and 3 because they only have two common friends (1 and 6).

## 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 strong_friendship(friendship: pd.DataFrame) -> pd.DataFrame:
```

## Solutions

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