

# Problem 3058: Friends With No Mutual Friends

## Problem Information

Difficulty: **Medium**

Acceptance Rate: 0.00%

Paid Only: No

## Problem Description

Table:

Friends

+-----+-----+ | Column Name | Type | +-----+-----+ | user\_id1 | int | | user\_id2 | int |  
+-----+-----+ (user\_id1, user\_id2) is the primary key (combination of columns with unique values) for this table. Each row contains user id1, user id2, both of whom are friends with each other.

Write a solution to find

all

pairs

of users who are friends with each other and have

no mutual

friends.

Return

the result table ordered by

user\_id1,

user\_id2

in

ascending

order.

The result format is in the following example.

Example 1:

Input:

```
Friends table: +-----+-----+ | user_id1 | user_id2 | +-----+-----+ | 1 | 2 | | 2 | 3 | | 2 | 4 | | 1 | 5 | | 6 | 7 | | 3 | 4 | | 2 | 5 | | 8 | 9 | +-----+-----+
```

Output:

```
+-----+-----+ | user_id1 | user_id2 | +-----+-----+ | 6 | 7 | | 8 | 9 | +-----+-----+
```

Explanation:

- Users 1 and 2 are friends with each other, but they share a mutual friend with user ID 5, so this pair is not included. - Users 2 and 3 are friends, they both share a mutual friend with user ID 4, resulting in exclusion, similarly for users 2 and 4 who share a mutual friend with user ID 3, hence not included. - Users 1 and 5 are friends with each other, but they share a mutual friend with user ID 2, so this pair is not included. - Users 6 and 7, as well as users 8 and 9, are friends with each other, and they don't have any mutual friends, hence included. - Users 3 and 4 are friends with each other, but their mutual connection with user ID 2 means they are not included, similarly for users 2 and 5 are friends but are excluded due to their mutual connection with user ID 1. Output table is ordered by user\_id1 in ascending order.

## 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 friends_with_no_mutual_friends(friends: pd.DataFrame) -> pd.DataFrame:
```

## Solutions

### MySQL Solution:

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