

# 1917. Leetcodify Friends Recommendations

## Description

Table: Listens

Column Name	Type	
user_id	int	
song_id	int	
day	date	

This table may contain duplicates (In other words, there is no primary key for this table in SQL).  
Each row of this table indicates that the user user\_id listened to the song song\_id on the day day.

Table: Friendship

Column Name	Type	
user1_id	int	
user2_id	int	

In SQL,(user1\_id, user2\_id) is the primary key 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.

Recommend friends to Leetcodify users. We recommend user x to user y if:

- Users x and y are not friends, and
- Users x and y listened to the same three or more different songs **on the same day** .

Note that friend recommendations are **unidirectional** , meaning if user x and user y should be recommended to each other, the result table should have both user x recommended to user y and user y recommended to user x . Also, note that the result table should not contain duplicates (i.e., user y should not be recommended to user x multiple times.).

Return the result table in **any order** .

The result format is in the following example.

### Example 1:

Input:

Listens table:

user_id	song_id	day
1	10	2021-03-15
1	11	2021-03-15
1	12	2021-03-15
2	10	2021-03-15
2	11	2021-03-15
2	12	2021-03-15
3	10	2021-03-15
3	11	2021-03-15
3	12	2021-03-15
4	10	2021-03-15
4	11	2021-03-15
4	13	2021-03-15
5	10	2021-03-16
5	11	2021-03-16
5	12	2021-03-16

Friendship table:

user1_id	user2_id
1	2

Output:

user_id	recommended_id
1	3
2	3
3	1
3	2

**Explanation:**  
Users 1 and 2 listened to songs 10, 11, and 12 on the same day, but they are already friends.  
Users 1 and 3 listened to songs 10, 11, and 12 on the same day. Since they are not friends, we recommend them to each other.  
Users 1 and 4 did not listen to the same three songs.  
Users 1 and 5 listened to songs 10, 11, and 12, but on different days.

Similarly, we can see that users 2 and 3 listened to songs 10, 11, and 12 on the same day and are not friends, so we recommend them to each other.

