1934. Confirmation Rate

Table: Signups

```
+----------------+----------+
| Column Name    | Type     |
+----------------+----------+
| user_id        | int      |
| time_stamp     | datetime |
+----------------+----------+
```

user_id is the column of unique values for this table.
Each row contains information about the signup time for the user with ID user_id.

Table: Confirmations

```
+----------------+----------+
| Column Name    | Type     |
+----------------+----------+
| user_id        | int      |
| time_stamp     | datetime |
| action         | ENUM     |
+----------------+----------+
```

(user_id, time_stamp) is the primary key (combination of columns with unique values) for this table.
user_id is a foreign key (reference column) to the Signups table.
action is an ENUM (category) of the type ('confirmed', 'timeout')
Each row of this table indicates that the user with ID user_id requested a confirmation message at time_stamp and that confirmation message was either confirmed ('confirmed') or expired without confirming ('timeout').

The **confirmation rate** of a user is the number of 'confirmed' messages divided by the total number of requested confirmation messages. The confirmation rate of a user that did not request any confirmation messages is 0. Round the confirmation rate to **two decimal** places.
Write a solution to find the **confirmation rate** of each user.
Return the result table in **any order**.
The result format is in the following example.

Example 1:
Input:
Signups table:

```
+---------+---------------------+
| user_id | time_stamp          |
+---------+---------------------+
| 3       | 2020-03-21 10:16:13 |
| 7       | 2020-01-04 13:57:59 |
| 2       | 2020-07-29 23:09:44 |
```

```
| 6      | 2020-12-09 10:39:37 |
+---------+--------------------+
```
Confirmations table:
```
+---------+--------------------+-----------+
| user_id | time_stamp         | action    |
+---------+--------------------+-----------+
| 3       | 2021-01-06 03:30:46 | timeout   |
| 3       | 2021-07-14 14:00:00 | timeout   |
| 7       | 2021-06-12 11:57:29 | confirmed |
| 7       | 2021-06-13 12:58:28 | confirmed |
| 7       | 2021-06-14 13:59:27 | confirmed |
| 2       | 2021-01-22 00:00:00 | confirmed |
| 2       | 2021-02-28 23:59:59 | timeout   |
+---------+--------------------+-----------+
```
Output:
```
+---------+-------------------+
| user_id | confirmation_rate |
+---------+-------------------+
| 6       | 0.00              |
| 3       | 0.00              |
| 7       | 1.00              |
| 2       | 0.50              |
+---------+-------------------+
```
Explanation:
User 6 did not request any confirmation messages. The confirmation rate is 0.
User 3 made 2 requests and both timed out. The confirmation rate is 0.
User 7 made 3 requests and all were confirmed. The confirmation rate is 1.
User 2 made 2 requests where one was confirmed and the other timed out. The
confirmation rate is 1 / 2 = 0.5.

```sql
SELECT
    S.user_id,
    ROUND(
      COALESCE(
        SUM(CASE WHEN C.action = 'confirmed' THEN 1 ELSE 0 END) /
        NULLIF(SUM(CASE WHEN C.action IN ('confirmed', 'timeout') THEN 1 ELSE
0 END), 0),
        0
      ),
      2
    ) AS confirmation_rate
FROM
    Signups S
LEFT JOIN
```

```
    Confirmations C ON S.user_id = C.user_id
GROUP BY
    S.user_id;
```