3089. Find Bursty Behavior

Description

```
Table: Posts

+------+
| Column Name \| Type \| +------+
| post_id \| int \| |
| user_id \| int \| |
| post_date \| date \| +------+

post_id is the primary key (column with unique values) for this table.

Each row of this table contains post_id, user_id, and post_date.
```

Write a solution to find users who demonstrate bursty behavior in their posting patterns during February 2024. Bursty behavior is defined as any period of 7 consecutive days where a user's posting frequency is at least twice to their average weekly posting frequency for February 2024.

Note: Only include the dates from February 1 to February 28 in your analysis, which means you should count February as having exactly 4 weeks.

Return the result table orderd by user_id in ascending order.

The result format is in the following example.

Example:

Input:

Posts table:

Output:

Explanation:

- User 1: Made only 1 post in February, resulting in an average of 0.25 posts per week and a max of 1 post in any 7-day period.
- User 2: Also made just 1 post, with the same average and max 7-day posting frequency as User 1.
- User 5: Like Users 1 and 2, User 5 made only 1 post throughout February, leading to the same average and max 7-day posting metrics.
- User 3: Although User 3 made more posts than the others (3 posts), they did not reach twice the average weekly posts in their consecutive 7-day window, so they are not listed in the output.

Note: Output table is ordered by user_id in ascending order.