3089. Find Bursty Behavior Premium

Medium Topics

SQL Schema > Pandas Schema >

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:

```
+---------+---------+------------+
| post_id | user_id | post_date  |
+---------+---------+------------+
| 1       | 1       | 2024-02-27 |
| 2       | 5       | 2024-02-06 |
| 3       | 3       | 2024-02-25 |
| 4       | 3       | 2024-02-14 |
| 5       | 3       | 2024-02-06 |
| 6       | 2       | 2024-02-25 |
+---------+---------+------------+
```

Output:

```
+---------+----------------+------------------+
| user_id | max_7day_posts | avg_weekly_posts |
+---------+----------------+------------------+
| 1       | 1              | 0.2500           |
| 2       | 1              | 0.2500           |
| 5       | 1              | 0.2500           |
+---------+----------------+------------------+
```

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.

Seen this question in a real interview before? 1/5

Yes No

Accepted 1.1K | Submissions 2.8K | Acceptance Rate 39.4%

Topics

Database

Discussion (5)