

Given a table with event logs, find the top five users with the longest continuous streak of visiting the platform in 2020.

Note: A continuous streak counts if the user visits the platform at least once per day on consecutive days.

Example:

Input:

events table

Column	Type
user_id	INTEGER
created_at	DATETIME
url	VARCHAR

player_id	created_at	result
1	2020-10-01 00:00:00.000	Win
1	2020-10-02 00:00:00.000	Win
1	2020-10-03 00:00:00.000	Win
1	2020-10-03 00:00:00.000	Draw
1	2020-10-04 00:00:00.000	Win
3	2020-10-04 00:00:00.000	Draw
3	2020-10-05 00:00:00.000	Draw
2	2019-10-19 00:00:00.000	Lose
2	2019-10-25 00:00:00.000	Lose
4	2019-11-05 00:00:00.000	Win

FIRST RANK ALL THOSE MATCHES USE DENSE RANK BECOZ HERE U HAVE TO RANK THEM BY NUMBER

```
SELECT player_id
       , created_at AS match_day
       , DENSE_RANK() OVER (PARTITION BY player_id ORDER BY created_at) AS RN
FROM Matches
```

player_id	match_day	RN
1	2020-10-01 00:00:00.000	1
1	2020-10-02 00:00:00.000	2
1	2020-10-03 00:00:00.000	3
1	2020-10-03 00:00:00.000	3
1	2020-10-04 00:00:00.000	4
2	2019-10-19 00:00:00.000	1
2	2019-10-25 00:00:00.000	2
3	2020-10-04 00:00:00.000	1
3	2020-10-05 00:00:00.000	2
4	2019-11-05 00:00:00.000	1

NOW FIND ALL THE WINNING PLAYERS AND RANK THEM

```
SELECT player_id
       , created_at AS match_day
       , DENSE_RANK() OVER (PARTITION BY player_id ORDER BY created_at) AS RN
FROM Matches
WHERE result = 'Win'
```

player_id	match_day	RN
1	2020-10-01 00:00:00.000	1
1	2020-10-02 00:00:00.000	2
1	2020-10-03 00:00:00.000	3
1	2020-10-04 00:00:00.000	4
4	2019-11-05 00:00:00.000	1

NOW RANK THESE PLAYERS NUMBER OF MATCHES PLAYED FOR DISTINCT PLAYERS

player_id	DIFF	CNT	RNK
1	0	4	1
4	0	1	1

```

WITH CTE_A AS (
SELECT M.player_id
      , M.RN - W.RN AS DIFF
      , COUNT(DISTINCT M.match_day) AS CNT
      , RANK() OVER (PARTITION BY M.player_id
                     ORDER BY COUNT(DISTINCT M.match_day) DESC) AS RNK
FROM (
      SELECT player_id
            , created_at AS match_day
            , DENSE_RANK() OVER (PARTITION BY player_id ORDER BY created_at) AS RN
      FROM Matches
    ) M
JOIN (
      SELECT player_id
            , created_at AS match_day
            , DENSE_RANK() OVER (PARTITION BY player_id ORDER BY created_at) AS RN
      FROM Matches
      WHERE result = 'Win'
    ) W
ON M.player_id = W.player_id
AND M.match_day = W.match_day
GROUP BY M.player_id
      , M.RN - W.RN
)

--SELECT * FROM CTE_A
SELECT DISTINCT
      M.player_id
      , CASE WHEN A.player_id IS NULL THEN 0 ELSE A.CNT END longest_streak
FROM Matches M
LEFT JOIN CTE_A A
ON M.player_id = A.player_id
AND A.RNK = 1

```

RANKED BY WINNERS AND COUNT ON MATCHES PLAYED CONTINUOUSLY

player_id	longest_streak
1	4
2	0
3	0
4	1