Problem 3390: Longest Team Pass Streak

Problem Information

Difficulty: Hard
Acceptance Rate: 0.00%
Paid Only: No

Problem Description

Table:

Teams

+-------------+---------+ | Column Name | Type | +-------------+---------+ | player_id | int | | team_name | varchar | +-------------+---------+ player_id is the unique key for this table. Each row contains the unique identifier for player and the name of one of the teams participating in that match.

Table:

Passes

+-------------+---------+ | Column Name | Type | +-------------+---------+ | pass_from | int | | time_stamp | varchar | | pass_to | int | +-------------+---------+ (pass_from, time_stamp) is the unique key for this table. pass_from is a foreign key to player_id from Teams table. Each row represents a pass made during a match, time_stamp represents the time in minutes (00:00-90:00) when the pass was made, pass_to is the player_id of the player receiving the pass.

Write a solution to find the

longest successful pass streak

for

each team

during the match. The rules are as follows:

A successful pass streak is defined as consecutive passes where:

Both the

pass_from

and

pass_to

players belong to the same team

A streak breaks when either:

The pass is intercepted (received by a player from the opposing team)

Return

the result table ordered by

team_name

in

ascending

order

.

The result format is in the following example.

Example:

Input:

Teams table:

player_id	team_name
1	Arsenal
2	Arsenal
3	Arsenal
4	Arsenal
5	Chelsea
6	Chelsea
7	Chelsea
8	Chelsea

Passes table:

pass_from	time_stamp	pass_to
1	00:05	2
2	00:07	3
3	00:08	4
4	00:10	5
6	00:15	7
7	00:17	8
8	00:20	6
6	00:22	5
1	00:25	2
2	00:27	3

Output:

team_name	longest_streak
Arsenal	3
Chelsea	4

Explanation:

Arsenal

's streaks:

First streak: 3 passes (1→2→3→4) ended when player 4 passed to Chelsea's player 5

Second streak: 2 passes (1→2→3)

Longest streak = 3

Chelsea

's streaks:

First streak: 3 passes (6→7→8→6→5)

Longest streak = 4

Code Snippets

MySQL:

```
# Write your MySQL query statement below
```

MS SQL Server:

```
/* Write your T-SQL query statement below */
```

PostgreSQL:

```
-- Write your PostgreSQL query statement below
```

Oracle:

```
/* Write your PL/SQL query statement below */
```

Pandas:

```python
import pandas as pd

def calculate_longest_streaks(teams: pd.DataFrame, passes: pd.DataFrame) ->
pd.DataFrame:
```

Solutions

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