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# 1097. Game Play Analysis V

**Hard**   👍 43   👎 10   ♡ Add to List   ⌷ Share

SQL Schema ›

Table: `Activity`

```
+--------------+---------+
| Column Name  | Type    |
+--------------+---------+
| player_id    | int     |
| device_id    | int     |
| event_date   | date    |
| games_played | int     |
+--------------+---------+
(player_id, event_date) is the primary key of this table.
This table shows the activity of players of some game.
Each row is a record of a player who logged in and played a number of games (possibly 0) before logging out on some day using some
```

We define the *install date* of a player to be the first login day of that player.

We also define *day 1 retention* of some date `x` to be the number of players whose install date is `x` and they logged back in on the day right after `x`, div
date is `x`, **rounded to 2 decimal places**.

Write an SQL query that reports for each **install date**, the **number of players** that installed the game on that day and the **day 1 retention**.

The query result format is in the following example:

```
Activity table:
+-----------+-----------+------------+--------------+
| player_id | device_id | event_date | games_played |
+-----------+-----------+------------+--------------+
| 1         | 2         | 2016-03-01 | 5            |
| 1         | 2         | 2016-03-02 | 6            |
| 2         | 3         | 2017-06-25 | 1            |
| 3         | 1         | 2016-03-01 | 0            |
| 3         | 4         | 2016-07-03 | 5            |
+-----------+-----------+------------+--------------+

Result table:
+------------+----------+---------------+
| install_dt | installs | Day1_retention |
+------------+----------+---------------+
| 2016-03-01 | 2        | 0.50          |
| 2017-06-25 | 1        | 0.00          |
+------------+----------+---------------+
Player 1 and 3 installed the game on 2016-03-01 but only player 1 logged back in on 2016-03-02 so the day 1 retention of 2016-03-
Player 2 installed the game on 2017-06-25 but didn't log back in on 2017-06-26 so the day 1 retention of 2017-06-25 is 0 / 1 = 0.
```

Accepted  3,418   |   Submissions  6,245

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Contributor

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