

DAY 9

Table: Activity

Col_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 device.

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, divided by the number of players whose install 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:

Sample Input

Activity table:

player_id	device_id	event_date	games_played
1	2	1/3/2016	5
1	2	2/3/2016	6
2	3	25/06/2017	1
3	1	1/3/2016	0
3	4	3/7/2016	5

Sample Output:

install_dt	installs	Day1_retention
1/3/2016	2	0.5
25/06/2017	1	0

Explanation:

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 2016-03-01 is $1 / 2 = 0.50$

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 $0 / 1 = 0.00$