

1322. Ads Performance

Easy 43 11 Add to List Share

SQL Schema >

Table: Ads

Column Name	Type
ad_id	int
user_id	int
action	enum

(ad_id, user_id) is the primary key for this table.

Each row of this table contains the ID of an Ad, the ID of a user and the action taken by this user regarding this Ad. The action column is an ENUM type of ('Clicked', 'Viewed', 'Ignored').

A company is running Ads and wants to calculate the performance of each Ad.

Performance of the Ad is measured using Click-Through Rate (CTR) where:

$$CTR = \begin{cases} 0, & \text{if Ad total clicks + Ad total views} = 0 \\ \frac{\text{Ad total clicks}}{\text{Ad total clicks} + \text{Ad total views}} \times 100, & \text{otherwise} \end{cases}$$

Write an SQL query to find the ctr of each Ad.

Round ctr to 2 decimal points. Order the result table by ctr in descending order and by ad_id in ascending order in case of a tie.

The query result format is in the following example:

Ads table:

ad_id	user_id	action
1	1	Clicked
2	2	Clicked
3	3	Viewed
5	5	Ignored
1	7	Ignored
2	7	Viewed
3	5	Clicked
1	4	Viewed
2	11	Viewed
1	2	Clicked

Result table:

ad_id	ctr
1	66.67
3	50.00
2	33.33
5	0.00

for ad_id = 1, ctr = (2/(2+1)) * 100 = 66.67
for ad_id = 2, ctr = (1/(1+2)) * 100 = 33.33
for ad_id = 3, ctr = (1/(1+1)) * 100 = 50.00
for ad_id = 5, ctr = 0.00, Note that ad_id = 5 has no clicks or views.
Note that we don't care about Ignored Ads.
Result table is ordered by the ctr. in case of a tie we order them by ad_id

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Seen this question in a real interview before? Yes No

Contributor

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