

1843. Suspicious Bank Accounts Premium

Medium Topics Companies

SQL Schema > Pandas Schema >

Table: Accounts

Column Name	Type
account_id	int
max_income	int

account_id is the column with unique values for this table.
Each row contains information about the maximum monthly income for one bank account.

Table: Transactions

Column Name	Type
transaction_id	int
account_id	int
type	ENUM
amount	int
day	datetime

transaction_id is the column with unique values for this table.
Each row contains information about one transaction.
type is ENUM (category) type of ('Creditor','Debtor') where 'Creditor' means the user deposited money into their account and 'Debtor' means the user withdrew money from their account.
amount is the amount of money deposited/withdrawn during the transaction.

A bank account is **suspicious** if the **total income** exceeds the `max_income` for this account for **two or more consecutive** months. The **total income** of an account in some month is the sum of all its deposits in that month (i.e., transactions of the type `'Creditor'`).

Write a solution to report the IDs of all **suspicious** bank accounts.

Return the result table **in any order**.

The result format is in the following example.

Example 1:

Input:

Accounts table:

account_id	max_income
3	21000
4	10400

Transactions table:

transaction_id	account_id	type	amount	day
2	3	Creditor	107100	2021-06-02 11:38:14
4	4	Creditor	10400	2021-06-20 12:39:18
11	4	Debtor	58800	2021-07-23 12:41:55
1	4	Creditor	49300	2021-05-03 16:11:04
15	3	Debtor	75500	2021-05-23 14:40:20
10	3	Creditor	102100	2021-06-15 10:37:16
14	4	Creditor	56300	2021-07-21 12:12:25
19	4	Debtor	101100	2021-05-09 15:21:49
8	3	Creditor	64900	2021-07-26 15:09:56
7	3	Creditor	90900	2021-06-14 11:23:07

Output:

account_id
3

Explanation:

For account 3:

- In 6-2021, the user had an income of $107100 + 102100 + 90900 = 300100$.
- In 7-2021, the user had an income of 64900.

We can see that the income exceeded the max income of 21000 for two consecutive months, so we include 3 in the result table.

For account 4:

- In 5-2021, the user had an income of 49300.
- In 6-2021, the user had an income of 10400.
- In 7-2021, the user had an income of 56300.

We can see that the income exceeded the max income in May and July, but not in June. Since the account did not exceed the max income for two consecutive months, we do not include it in the result table.

Seen this question in a real interview before? 1/5

Yes No

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Topics

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0 - 6 months

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Discussion (6)