SQL Schema

Table: Accounts

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| Column Name | Type |

+----------------+------+

| account\_id | int |

| max\_income | int |

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account\_id is the primary key for this table.

Each row contains information about the maximum monthly income for one bank account.

Table: Transactions

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| Column Name | Type |

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| transaction\_id | int |

| account\_id | int |

| type | ENUM |

| amount | int |

| day | datetime |

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transaction\_id is the primary key for this table.

Each row contains information about one transaction.

type is ENUM ('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amount is the amount of money depositied/withdrawn during the transaction.

Write an SQL query to report the IDs of all **suspicious** bank accounts.

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').

Return the result table **in ascending order by**transaction\_id.

The query result format is in the following example:

Accounts table:

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| account\_id | max\_income |

+------------+------------+

| 3 | 21000 |

| 4 | 10400 |

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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 |

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Result table:

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| account\_id |

+------------+

| 3 |

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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.