

Write a query to return the account no and transaction date when the account balance reached 1000
Please include only those accounts whose balance currently is >= 1000

Input			
account_no	transaction_date	transaction_type	transaction_amount
acc_1	20-01-2022	credit	100
acc_1	21-01-2022	credit	500
acc_1	22-01-2022	credit	300
acc_1	23-01-2022	credit	200
acc_2	20-01-2022	credit	500
acc_2	21-01-2022	credit	1100
acc_2	22-01-2022	debit	1000
acc_3	20-01-2022	credit	1000
acc_4	20-01-2022	credit	1500
acc_4	21-01-2022	debit	500
acc_5	20-01-2022	credit	900

Output	
account_no	transaction_date
acc_1	23-01-2022
acc_3	20-01-2022
acc_4	20-01-2022

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1
2
3 WITH transaction_amount AS(
4 SELECT *,
5 CASE
6     WHEN transaction_type = 'debit' THEN transaction_amount * -1
7     ELSE transaction_amount END AS updated_transaction_amount
8 FROM account_balance), -- Updated Transaction amount for credit & debit
9 Account_balance AS(
10 SELECT
11     account_no, transaction_date, updated_transaction_amount,
12     SUM(updated_transaction_amount) OVER (PARTITION BY account_no ORDER BY transaction_date)
13     AS curr_account_bal, -- 1. Create cumulative account balance AS Current account balance
14     SUM (updated_transaction_amount) OVER (PARTITION BY account_no ORDER BY transaction_date
15                                             RANGE BETWEEN UNBOUNDED PRECEDING AND UNBOUNDED FOLLOWING)
16     AS final_bal, -- 2. Create Final balance After last transaction using frame clause
17     CASE WHEN SUM(updated_transaction_amount) OVER (PARTITION BY account_no ORDER BY transaction_date) >= 1000
18         THEN 1 ELSE 0 END AS acc_flag -- 3. Create flag when account balance reached >= 1000
19 FROM transaction_amount)
20 SELECT account_no , MIN(transaction_date) AS transaction_date FROM Account_balance
21 WHERE final_bal >= 1000
22     AND acc_flag = 1
23 GROUP BY account_no;
24
25
26
27

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