

DESCRIPTION

Table: Transactions

+-----+-----+	
Column Name	Type
+-----+-----+	
id	int
country	varchar
state	enum
amount	int
trans_date	date
+-----+-----+	

id is the primary key of this table.

The table has information about incoming transactions.

The state column is an enum of type ["approved", "declined"].

Write an SQL query to find for each month and country, the number of transactions and their total amount, the number of approved transactions and their total amount.

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

The query result format is in the following example.

Example 1:

Input:

Transactions table:

+-----+-----+-----+-----+-----+				
id	country	state	amount	trans_date
+-----+-----+-----+-----+-----+				
121	US	approved	1000	2018-12-18
122	US	declined	2000	2018-12-19
123	US	approved	2000	2019-01-01

| 124 | DE | approved | 2000 | 2019-01-07 |

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

Output:

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

| month | country | trans_count | approved_count | trans_total_amount | approved_total_amount |

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

| 2018-12 | US | 2 | 1 | 3000 | 1000 |

| 2019-01 | US | 1 | 1 | 2000 | 2000 |

| 2019-01 | DE | 1 | 1 | 2000 | 2000 |

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SOLUTION

MySQL:

- Select month in 'YYYY-MM' format using DATE_FORMAT(), trans_count using COUNT(), and approved_count and approved_total_count using SUM() and IF()
- GROUP BY country, year, month

```
SELECT DATE_FORMAT(trans_date, '%Y-%m') month, country, COUNT(*) trans_count, SUM(IF(state = 'approved', 1, 0)) approved_count, SUM(amount) trans_total_amount, SUM(IF(state = 'approved', amount, 0)) approved_total_amount
FROM Transactions
GROUP BY COUNTRY, YEAR(trans_date), MONTH(trans_date)
```

PostgreSQL:

- Select month in 'YYYY-MM' format using TO_CHAR(), trans_count using COUNT(), and approved_count and approved_total_count using SUM() and CASE
- GROUP BY month, country

```
SELECT TO_CHAR(trans_date, 'yyyy-mm') AS month, country, COUNT(*) trans_count, COUNT(CASE WHEN state = 'approved' THEN 1 END) AS approved_count, SUM(amount) AS trans_total_amount, SUM(CASE WHEN state = 'approved' THEN amount ELSE 0 END) AS approved_total_amount
FROM Transactions
GROUP BY 1, 2;
```