

7105-CRM

RUN

SAVE

SCHEDULE

MORE

```
1 WITH month_table AS (  
2     SELECT DISTINCT CUST_CODE, DATE_TRUNC(PARSE_DATE('%Y%m%d', CAST(SHOP_DATE AS STRING)), month) curr_month  
3     FROM `grand-plasma-331409.supermarket_data.supermarket`  
4     WHERE CUST_CODE IS NOT NULL  
5 ),  
6 prev_table AS (  
7     SELECT CUST_CODE, curr_month, LAG(curr_month, 1) OVER (PARTITION BY CUST_CODE ORDER BY curr_month) AS prev_month  
8     FROM month_table  
9 ),  
10 status_table AS (  
11     SELECT *  
12     ,CASE  
13         WHEN DATE_DIFF(curr_month, prev_month, MONTH) IS NULL THEN 'New_User'  
14         WHEN DATE_DIFF(curr_month, prev_month, MONTH) = 1 THEN 'Repeat_User'  
15         WHEN DATE_DIFF(curr_month, prev_month, MONTH) > 1 THEN 'Reactivate_User'  
16     ELSE NULL END AS month_status  
17     FROM prev_table  
18 ),  
19 churn_table AS (  
20     SELECT *  
21     FROM status_table  
22     UNION ALL  
23     SELECT CUST_CODE, DATE_ADD(curr_month, INTERVAL 1 MONTH) month_status, curr_month as prev_month, 'Churn_User' AS month_status  
24     FROM (  
25         SELECT CUST_CODE, curr_month  
26             ,LEAD(curr_month, 1) OVER (PARTITION BY CUST_CODE ORDER BY curr_month) AS next_transac  
27             ,DATE_DIFF(LEAD(curr_month, 1) OVER (PARTITION BY CUST_CODE ORDER BY curr_month), curr_month, MONTH) AS diff_next  
28         FROM status_table  
29     ) WHERE  
30         (diff_next > 1 or diff_next is null)  
31         AND curr_month < (SELECT MAX(curr_month) FROM month_table)  
32 )  
33 SELECT curr_month  
34     ,COUNT(DISTINCT CASE WHEN month_status = 'New_User' THEN CUST_CODE ELSE NULL END) AS new_user  
35     ,COUNT(DISTINCT CASE WHEN month_status = 'Repeat_User' THEN CUST_CODE ELSE NULL END) AS repeat_user  
36     ,COUNT(DISTINCT CASE WHEN month_status = 'Reactivate_User' THEN CUST_CODE ELSE NULL END) AS reactivate_user  
37     ,COUNT(DISTINCT CASE WHEN month_status = 'Churn_User' THEN CUST_CODE ELSE NULL END) AS churn_user  
38 FROM churn_table  
39 GROUP BY curr_month  
40 ORDER BY curr_month
```

