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1 WITH CSUTOMER_LV AS (
2   SELECT DISTINCT CUST_CODE
3     ,DATE_TRUNC(PARSE_DATE('%Y%m%d', CAST(SHOP_DATE AS STRING)), MONTH) AS SHOP_MTH
4   FROM 'my-project-1541827391977.BADS7105.supermarket'
5   WHERE CUST_CODE IS NOT NULL )
6 SELECT RPT_MTH
7   ,COUNT(DISTINCT CUST_CODE) AS CNT_CUST
8   ,COUNT(DISTINCT CASE WHEN CUST_STATUS = 'New' THEN CUST_CODE ELSE "" END) AS CNT_NEW
9   ,COUNT(DISTINCT CASE WHEN CUST_STATUS = 'Repeat' THEN CUST_CODE ELSE "" END) AS CNT_REPEAT
10  ,COUNT(DISTINCT CASE WHEN CUST_STATUS = 'Reactive' THEN CUST_CODE ELSE "" END) AS CNT_REACTIVE
11  ,COUNT(DISTINCT CASE WHEN CUST_STATUS = 'Churn' THEN CUST_CODE ELSE "" END) AS CNT_CHURN
12 FROM ((SELECT CUST_CODE
13         ,SHOP_MTH AS RPT_MTH
14         ,PREV_MTH
15         ,(CASE WHEN DATE_DIFF(SHOP_MTH, PREV_MTH, MONTH) IS NULL THEN 'New'
16              WHEN DATE_DIFF(SHOP_MTH, PREV_MTH, MONTH) = 1 THEN 'Repeat'
17              WHEN DATE_DIFF(SHOP_MTH, PREV_MTH, MONTH) > 1 THEN 'Reactive'
18              ELSE NULL END) AS CUST_STATUS
19        FROM (SELECT CUST_CODE
20              ,SHOP_MTH
21              ,(LAG(SHOP_MTH, 1) OVER (PARTITION BY CUST_CODE ORDER BY SHOP_MTH)) AS PREV_MTH
22              FROM CSUTOMER_LV))
23  UNION ALL
24  (SELECT CUST_CODE
25        ,DATE_ADD(SHOP_MTH, INTERVAL 1 MONTH) AS RPT_MTH
26        ,SHOP_MTH as PREV_MTH
27        ,'Churn' AS CUST_STATUS
28  FROM (SELECT CUST_CODE
29        ,SHOP_MTH
30        ,DATE_DIFF(LEAD(SHOP_MTH, 1) OVER (PARTITION BY CUST_CODE ORDER BY SHOP_MTH), SHOP_MTH, MONTH) AS NEXT_MTH
31        FROM CSUTOMER_LV)
32  WHERE (NEXT_MTH > 1 or NEXT_MTH is null) AND SHOP_MTH < (SELECT MAX(SHOP_MTH) FROM CSUTOMER_LV)))
33 GROUP BY RPT_MTH
34 ;
35

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