WITH cust\_month AS (

SELECT

DISTINCT DATE\_TRUNC(PARSE\_DATE('%Y%m%d', CAST(SHOP\_DATE as STRING)),MONTH) as SHOP\_MONTH, CUST\_CODE

FROM `crucial-venture-332012.Meenz1719.Supermarket`

WHERE CUST\_CODE IS NOT NULL

)

SELECT report\_month

,COUNT(DISTINCT CASE WHEN status = 'New' THEN cust\_code ELSE NULL END) AS new\_customers

,COUNT(DISTINCT CASE WHEN status = 'Repeat' THEN cust\_code ELSE NULL END) AS repeat\_customers

,COUNT(DISTINCT CASE WHEN status = 'Reactivated' THEN cust\_code ELSE NULL END) AS reactivated\_customers

,-COUNT(DISTINCT CASE WHEN status = 'Churn' THEN cust\_code ELSE NULL END) AS churn\_customers

FROM (

SELECT cust\_code, shop\_month AS report\_month, prev\_month

,CASE

WHEN DATE\_DIFF(shop\_month, prev\_month, MONTH) IS NULL THEN 'New'

WHEN DATE\_DIFF(shop\_month, prev\_month, MONTH) = 1 THEN 'Repeat'

WHEN DATE\_DIFF(shop\_month, prev\_month, MONTH) > 1 THEN 'Reactivated'

ELSE NULL END AS status

FROM (

SELECT cust\_code, shop\_month, LAG(shop\_month, 1) OVER (PARTITION BY cust\_code ORDER BY shop\_month) AS prev\_month

FROM cust\_month

)

UNION ALL

SELECT cust\_code, DATE\_ADD(shop\_month, INTERVAL 1 MONTH) report\_month, shop\_month as prev\_month

,'Churn' AS status

FROM (

SELECT cust\_code, shop\_month

,LEAD(shop\_month, 1) OVER (PARTITION BY cust\_code ORDER BY shop\_month) AS next\_trans\_date

,DATE\_DIFF(LEAD(shop\_month, 1) OVER (PARTITION BY cust\_code ORDER BY shop\_month), shop\_month, MONTH) AS n\_months

FROM cust\_month

) WHERE

(n\_months > 1 or n\_months is null)

AND shop\_month < (SELECT MAX(shop\_month) FROM cust\_month)

) GROUP BY report\_month

order by report\_month ;