```sql
select month_year

,sum(flag_new) as new_customer

,sum(flag_react) as reactivate_customer

,sum(flag_rep) as repeat_customer

,sum(flag_react)+sum(flag_rep)-lag(count(distinct(cust_code)),1,0) OVER(ORDER BY month_year ASC) as churn

from

(select c.cust_code,c.month_year

,max(if(c.c_date=c.f_date,1,0)) as  flag_new

,max(if(DATE_DIFF(c.c_date,c.p_date,month)=2,1,0)) as flag_react

,max(if(DATE_DIFF(c.c_date,c.p_date,month)=1,1,0)) as flag_rep

from

(select m.cust_code

,cast(left(cast(SHOP_DATE as string),6) as int) as month_year

,cast(concat(left(cast(SHOP_DATE as string),4),"-",substr(cast(SHOP_DATE as string),5,2),"-01") as date) as c_date

,if(concat(left(cast(lag(SHOP_DATE,1,0) over (partition by m.CUST_CODE order by SHOP_DATE asc) as string),4),"-",substr(cast(lag(SHOP_DATE,1,0) over
(partition by m.CUST_CODE order by SHOP_DATE asc) as string),5,2),"-01") like "%0--01%",f.f_date,cast(concat(left(cast(lag(SHOP_DATE,1,0) over
(partition by m.CUST_CODE order by SHOP_DATE asc) as string),4),"-",substr(cast(lag(SHOP_DATE,1,0) over (partition by m.CUST_CODE order by
SHOP_DATE asc) as string),5,2),"-01") as date)) as p_date

,f.f_date

FROM `starlit-granite-331409.churn_gohan01.supermarket` m

left join (SELECT CUST_CODE

,min(cast(concat(left(cast(SHOP_DATE as string),4),"-",substr(cast(SHOP_DATE as string),5,2),"-01") as date)) as f_date

FROM `starlit-granite-331409.churn_gohan01.supermarket`

where CUST_CODE is not null

group by CUST_CODE) f

on m.cust_code = f.cust_code) c

group by c.cust_code,c.month_year) flag_data

group by month_year

order by month_year asc
```