```sql
with supm as(
SELECT distinct CUST_CODE
, eom
, dense_rank() over (partition by CUST_CODE order by eom desc) as rnk
FROM (
select CUST_CODE
, last_day(PARSE_DATE('%Y%m%d', CAST( SHOP_DATE AS STRING ))) eom
from `bads7105-331409.supermarket.supermarket`
where CUST_CODE is not null)
-- order by CUST_CODE, eom desc
)
, supm2 as (select a.*, b.max_rnk
from supm a
left join (
select CUST_CODE
, max(rnk) max_rnk
from supm
group by 1
) b
on a.CUST_CODE = b.CUST_CODE
order by a.CUST_CODE, a.eom desc)

, sump3 as (select distinct a.CUST_CODE, a.max_rnk
, b.eom eom_rnk1
, c.eom eom_rnk2
, d.eom eom_rnk3
from supm2 a
left join (select CUST_CODE, eom from supm2 where rnk = 1) b
on a.CUST_CODE = b.CUST_CODE
left join (select CUST_CODE, eom from supm2 where rnk = 2) c
on a.CUST_CODE = c.CUST_CODE
left join (select CUST_CODE, eom from supm2 where rnk = 3) d
on a.CUST_CODE = d.CUST_CODE
-- order by  1,2
)

,
churn_200807 as (select *
, case when max_rnk = 1 and eom_rnk1 = '2008-07-31' then 'New customer'
        when max_rnk > 1 and eom_rnk1 = '2008-07-31' and eom_rnk2 = '2008-06-
30' then 'Repeated customer'
        when max_rnk > 1 and eom_rnk1 = '2008-07-31' and eom_rnk2 != '2008-06-
30' then 'Reactived customer'
        when max_rnk >= 1 and eom_rnk1 != '2008-07-31' then 'Churn customer'
        end churn_flag
, 'Churn rate at 2008-07-31' churn_mnt
from sump3
-- order by eom_rnk1 desc
)

,
churn_200806 as (select *
, case when max_rnk = 2 and eom_rnk2 = '2008-06-30' then 'New customer'
```

```sql
        when max_rnk > 2 and eom_rnk2 = '2008-06-30' and eom_rnk3 = '2008-05-
31' then 'Repeated customer'
        when max_rnk > 2 and eom_rnk2 = '2008-06-30' and eom_rnk3 != '2008-05-
31' then 'Reactived customer'
        when max_rnk >= 2 and eom_rnk2 != '2008-06-30' then 'Churn customer'
        else 'Churn customer'
        end churn_flag
, 'Churn rate at 2008-06-30' churn_mnt
from sump3
-- order by eom_rnk2 desc
)

select *
from
(select *
from churn_200807
union all (select * from churn_200806))
order by eom_rnk1 desc
```

Churn customer   Repeated customer   Reactived customer

7K	
6K	
5K	
4K	
3K	
2K	
1K	
0	

Churn rate at 2008-06-30   Churn rate at 2008-07-31