Question1:

SELECT DISTINCT CUST\_ID, MONITORING\_DT

,CASE

WHEN LAST\_CONCUMPTION > ( AVG(DAILY\_REVENUE) OVER(PARTITION BY CUST\_ID) + STDDEV(DAILY\_REVENUE) OVER(PARTITION BY CUST\_ID) ) THEN 'HU'

WHEN LAST\_CONCUMPTION < ( AVG(DAILY\_REVENUE) OVER(PARTITION BY CUST\_ID) + STDDEV(DAILY\_REVENUE) OVER(PARTITION BY CUST\_ID) ) AND

LAST\_CONCUMPTION > AVG(DAILY\_REVENUE) OVER(PARTITION BY CUST\_ID) THEN 'U'

WHEN LAST\_CONCUMPTION = AVG(DAILY\_REVENUE) OVER(PARTITION BY CUST\_ID) THEN 'N'

WHEN LAST\_CONCUMPTION > (AVG(DAILY\_REVENUE) OVER(PARTITION BY CUST\_ID) -STDDEV(DAILY\_REVENUE) OVER(PARTITION BY CUST\_ID) ) AND

LAST\_CONCUMPTION < AVG(DAILY\_REVENUE) OVER(PARTITION BY CUST\_ID) THEN 'R'

WHEN LAST\_CONCUMPTION < ( AVG(DAILY\_REVENUE) OVER(PARTITION BY CUST\_ID) - STDDEV(DAILY\_REVENUE) OVER(PARTITION BY CUST\_ID) ) THEN 'HR'

END MVM

FROM (

SELECT MONITORING\_DT, CUST\_ID,RECHARGE\_DT,RECHARGE\_AMT , DAILY\_REVENUE

,AVG(DAILY\_REVENUE) OVER(PARTITION BY CUST\_ID) AVG\_DAILY\_REV

,STDDEV(DAILY\_REVENUE) OVER(PARTITION BY CUST\_ID) STD\_DAILY\_REV

,LAST\_VALUE(DAILY\_REVENUE) OVER(PARTITION BY CUST\_ID ORDER BY RECHARGE\_DT ROWS BETWEEN UNBOUNDED PRECEDING AND UNBOUNDED FOLLOWING) LAST\_CONCUMPTION

FROM(

SELECT MONITORING\_DT, CUST\_ID, RECHARGE\_DT, RECHARGE\_AMT

,LEAD(RECHARGE\_DT,1) OVER(PARTITION BY CUST\_ID ORDER BY RECHARGE\_DT)-RECHARGE\_DT AS RCHRG\_DIFF\_DAYS

,MONITORING\_DT-LAST\_VALUE(RECHARGE\_DT) OVER(PARTITION BY CUST\_ID ORDER BY RECHARGE\_DT ROWS BETWEEN UNBOUNDED PRECEDING AND UNBOUNDED FOLLOWING) AS LAST\_RCHRG\_DAY\_TO31

*-- ,COUNT(RECHARGE\_DT) OVER(PARTITION BY CUST\_ID) COUNTED\_CHRGS*

, RECHARGE\_AMT/ABS(LEAD(RECHARGE\_DT,1,MONITORING\_DT) OVER(PARTITION BY CUST\_ID ORDER BY RECHARGE\_DT)-RECHARGE\_DT) DAILY\_REVENUE

FROM FIRST\_CASE

ORDER BY CUST\_ID, RECHARGE\_DT

)C1

)OUTER\_QRY

ORDER BY CUST\_ID

Question2:

*--FINAL ANSWER*

*--I TRIED TO IGNORE NULLS OR MAKE IT A LITTLE BIT ORDERED BUT I COULDN’T SO I DELETED THOSE LINES, IF YOU COULD TELL ME HOW TO DO IT*

SELECT INN\_QRY.CUST\_ID, INN\_QRY.MONTH\_START\_DT, INN\_QRY.MONTH\_BASE\_FLAG,

CASE WHEN MONTH\_BASE\_FLAG = 'YES' AND FLAG\_COUNT=1 THEN 'I'

WHEN MONTH\_BASE\_FLAG ='YES' AND PREV\_FLAG='YES' THEN 'B'

WHEN MONTH\_BASE\_FLAG IS NULL AND PREV\_FLAG='YES' THEN 'O'

WHEN MONTH\_BASE\_FLAG ='YES' AND PREV\_FLAG IS NULL THEN 'R'

END AS IBRO\_SEGMENT

FROM (

SELECT CUST\_ID, MONTH\_START\_DT, MONTH\_BASE\_FLAG

*-- ,LEAD(MONTH\_BASE\_FLAG) OVER (PARTITION BY CUST\_ID ORDER BY MONTH\_START\_DT) AS NXT\_PURCHASE\_MONTH*

,COUNT(MONTH\_BASE\_FLAG) OVER(PARTITION BY CUST\_ID ORDER BY MONTH\_START\_DT) AS FLAG\_COUNT

,LAG(MONTH\_BASE\_FLAG,1) OVER(PARTITION BY CUST\_ID ORDER BY MONTH\_START\_DT) AS PREV\_FLAG

FROM SECOND\_CASE

*--WHERE CUST\_ID = 117330*

)INN\_QRY

*--WHERE MONTH\_BASE\_FLAG ='YES' AND FLAG\_COUNT=1*

Question3-A:

SELECT CUST\_ID, MAX(COUNT\_CONTINUOUS\_DAYS) MAX\_CONT\_DAYS

FROM (

SELECT CUST\_ID, CALENDAR\_DT, DAYS\_DIFF

,CASE WHEN DAYS\_DIFF = 1

THEN CALENDAR\_DT - LAG(CALENDAR\_DT,1,NULL) OVER(PARTITION BY CUST\_ID ORDER BY CALENDAR\_DT) + 1

ELSE (CALENDAR\_DT - LAG(CALENDAR\_DT,1,NULL) OVER(PARTITION BY CUST\_ID ORDER BY CALENDAR\_DT) - DAYS\_DIFF)+1

END COUNT\_CONTINUOUS\_DAYS

FROM (

SELECT CUST\_ID, CALENDAR\_DT,AMT\_LE

,FIRST\_VALUE(CALENDAR\_DT) OVER(PARTITION BY CUST\_ID ORDER BY CALENDAR\_DT) FIRST\_TRA\_DAY

,LAST\_VALUE(CALENDAR\_DT) OVER(PARTITION BY CUST\_ID ORDER BY CALENDAR\_DT

ROWS BETWEEN UNBOUNDED PRECEDING AND UNBOUNDED FOLLOWING) LAST\_TRA\_DAY

,CALENDAR\_DT - LAG(CALENDAR\_DT,1,NULL) OVER(PARTITION BY CUST\_ID ORDER BY CALENDAR\_DT) DAYS\_DIFF

FROM THIRD\_CASE

WHERE AMT\_LE > 0 *--AND CUST\_ID IN (45234,54815)*

)

WHERE DAYS\_DIFF != 1 OR CALENDAR\_DT = FIRST\_TRA\_DAY OR CALENDAR\_DT = LAST\_TRA\_DAY

) GROUP BY CUST\_ID