**Assignment6: Customer Single View**

SELECT

cust\_code as CustomerID, --1

sum(quantity) as TotalQuantity, --2

round(sum(spend),2) as TotalSpend, --3

count(distinct basket\_id) as NumVisit, --4

round(sum(spend)/count(distinct basket\_id),2) as TicketSize, --5

PARSE\_DATE('%Y%m%d', CAST(max(shop\_date) AS STRING)) as LastVisit, --6

PARSE\_DATE('%Y%m%d', CAST(min(shop\_date) AS STRING)) as FirstVisit, --7

date\_diff(PARSE\_DATE('%Y%m%d', CAST(max(shop\_date) AS STRING)), PARSE\_DATE('%Y%m%d', CAST(min(shop\_date) AS STRING)),day)+1 as AgeofUsage\_day, --8

date\_diff(PARSE\_DATE('%Y%m%d', CAST(max(shop\_date) AS STRING)), PARSE\_DATE('%Y%m%d', CAST(min(shop\_date) AS STRING)),month)+1 as AgeofUsage\_month, --9

count(distinct substr(CAST(shop\_date AS STRING),0,6)) as ActiveMonth, --10

count(distinct shop\_date) as ActiveDate, --11

round((count(distinct substr(CAST(shop\_date AS STRING),0,6))/(date\_diff(PARSE\_DATE('%Y%m%d', CAST(max(shop\_date) AS STRING)), PARSE\_DATE('%Y%m%d', CAST(min(shop\_date) AS STRING)),month)+1))\*100,2) as PercActiveMonth, --12

round(count(distinct shop\_date)/(date\_diff(PARSE\_DATE('%Y%m%d', CAST(max(shop\_date) AS STRING)), PARSE\_DATE('%Y%m%d', CAST(min(shop\_date) AS STRING)),day)+1)\*100,2) as PercActiveDay, --13

(date\_diff(PARSE\_DATE('%Y%m%d', CAST(max(shop\_date) AS STRING)), PARSE\_DATE('%Y%m%d', CAST(min(shop\_date) AS STRING)),day)+1)/(date\_diff(PARSE\_DATE('%Y%m%d', CAST(max(shop\_date) AS STRING)), PARSE\_DATE('%Y%m%d', CAST(min(shop\_date) AS STRING)),month)+1) as ActiveDateperMonth, --14

count(distinct PROD\_CODE) as NumProduct, --15

ifnull((SELECT count(distinct BASKET\_ID)

FROM `nida-workshop.SUPERMARKET.TRANSACTIONS\_2STORES` as T2

where (T2.cust\_code = T1.cust\_code) and (T2.BASKET\_DOMINANT\_MISSION = 'Fresh')

group by cust\_code, BASKET\_DOMINANT\_MISSION),0) as NumFresh, --16

ifnull((SELECT count(distinct BASKET\_ID)

FROM `nida-workshop.SUPERMARKET.TRANSACTIONS\_2STORES` as T2

where (T2.cust\_code = T1.cust\_code) and (T2.BASKET\_DOMINANT\_MISSION = 'Grocery')

group by cust\_code, BASKET\_DOMINANT\_MISSION),0) as NumGrocery, --17

ifnull((SELECT count(distinct BASKET\_ID)

FROM `nida-workshop.SUPERMARKET.TRANSACTIONS\_2STORES` as T2

where (T2.cust\_code = T1.cust\_code) and (T2.BASKET\_DOMINANT\_MISSION = 'Mixed')

group by cust\_code, BASKET\_DOMINANT\_MISSION),0) as NumMixed, --18

ifnull((SELECT count(distinct BASKET\_ID)

FROM `nida-workshop.SUPERMARKET.TRANSACTIONS\_2STORES` as T2

where (T2.cust\_code = T1.cust\_code) and (T2.BASKET\_DOMINANT\_MISSION = 'Non Food')

group by cust\_code, BASKET\_DOMINANT\_MISSION),0) as NumNonFood, --19

ifnull((SELECT count(distinct BASKET\_ID)

FROM `nida-workshop.SUPERMARKET.TRANSACTIONS\_2STORES` as T2

where (T2.cust\_code = T1.cust\_code) and (T2.BASKET\_DOMINANT\_MISSION = 'XX')

group by cust\_code, BASKET\_DOMINANT\_MISSION),0) as NumXX, --20

ifnull(round((SELECT count(distinct BASKET\_ID)

FROM `nida-workshop.SUPERMARKET.TRANSACTIONS\_2STORES` as T2

where (T2.cust\_code = T1.cust\_code) and (T2.BASKET\_DOMINANT\_MISSION = 'Fresh')

group by cust\_code, BASKET\_DOMINANT\_MISSION)/count(distinct BASKET\_ID)\*100,4),0) as PercFresh, --21

ifnull(round((SELECT count(distinct BASKET\_ID)

FROM `nida-workshop.SUPERMARKET.TRANSACTIONS\_2STORES` as T2

where (T2.cust\_code = T1.cust\_code) and (T2.BASKET\_DOMINANT\_MISSION = 'Grocery')

group by cust\_code, BASKET\_DOMINANT\_MISSION)/count(distinct BASKET\_ID)\*100,4),0) as PercGrocery, --22

ifnull(round((SELECT count(distinct BASKET\_ID)

FROM `nida-workshop.SUPERMARKET.TRANSACTIONS\_2STORES` as T2

where (T2.cust\_code = T1.cust\_code) and (T2.BASKET\_DOMINANT\_MISSION = 'Mixed')

group by cust\_code, BASKET\_DOMINANT\_MISSION)/count(distinct BASKET\_ID)\*100,4),0) as PercMixed, --23

ifnull(round((SELECT count(distinct BASKET\_ID)

FROM `nida-workshop.SUPERMARKET.TRANSACTIONS\_2STORES` as T2

where (T2.cust\_code = T1.cust\_code) and (T2.BASKET\_DOMINANT\_MISSION = 'Non Food')

group by cust\_code, BASKET\_DOMINANT\_MISSION)/count(distinct BASKET\_ID)\*100,4),0) as PercNonFood, --24

ifnull(round((SELECT count(distinct BASKET\_ID)

FROM `nida-workshop.SUPERMARKET.TRANSACTIONS\_2STORES` as T2

where (T2.cust\_code = T1.cust\_code) and (T2.BASKET\_DOMINANT\_MISSION = 'XX')

group by cust\_code, BASKET\_DOMINANT\_MISSION)/count(distinct BASKET\_ID)\*100,4),0) as PercXX, --25

median.median\_disc as TotalSpend\_Median, --26

median.per75 as TotalSpend\_Per75, --27

median.per25 as TotalSpend\_Per25, --28

PurchaseTime.PurchaseWeekday as NumWeekday, --29

PurchaseTime.PurchaseWeekend as NumWeekend, --30

PurchaseTime.PurchaseMorning as NumMorning, --31

PurchaseTime.PurchaseAfternoon as NumAfternoon, --32

PurchaseTime.PurchaseEvening as NumEvening, --33

round(PurchaseTime.PurchaseWeekday\*100/count(distinct basket\_id),2) as PercWeekday, --34

round(PurchaseTime.PurchaseWeekend\*100/count(distinct basket\_id),2) as PercWeekend, --35

round(PurchaseTime.PurchaseMorning\*100/count(distinct basket\_id),2) as PercMorning, --36

round(PurchaseTime.PurchaseAfternoon\*100/count(distinct basket\_id),2) as PercAfternoon, --37

round(PurchaseTime.PurchaseEvening\*100/count(distinct basket\_id),2) as PercEvening --38

FROM `nida-workshop.SUPERMARKET.TRANSACTIONS\_2STORES` as T1

LEFT JOIN

(

SELECT distinct CustomerID,

PERCENTILE\_disc(TotalSpend, 0.5) OVER(PARTITION BY CustomerID) AS median\_disc,

PERCENTILE\_disc(TotalSpend, 0.75) OVER(PARTITION BY CustomerID) AS per75,

PERCENTILE\_disc(TotalSpend, 0.25) OVER(PARTITION BY CustomerID) AS per25

from

(

SELECT cust\_code as CustomerID, basket\_id, round(sum(spend),2) as TotalSpend,

FROM `nida-workshop.SUPERMARKET.TRANSACTIONS\_2STORES` as T2

where cust\_code is not null

group by cust\_code, basket\_id

order by cust\_code

)

) as median

on median.CustomerID = T1.cust\_code

LEFT JOIN

(

select

CustomerID,

COUNT(CASE WHEN SHOP\_WEEKDAY BETWEEN 2 AND 6 THEN 1 END) AS PurchaseWeekday,

COUNT(CASE WHEN SHOP\_WEEKDAY IN (1,7) THEN 1 END) AS PurchaseWeekend,

COUNT(CASE WHEN SHOP\_HOUR < 12 THEN 1 END) AS PurchaseMorning,

COUNT(CASE WHEN SHOP\_HOUR BETWEEN 12 and 17 THEN 1 END) AS PurchaseAfternoon,

COUNT(CASE WHEN SHOP\_HOUR > 18 THEN 1 END) AS PurchaseEvening,

from

(

SELECT cust\_code as CustomerID,basket\_id,SHOP\_WEEKDAY,SHOP\_HOUR,BASKET\_DOMINANT\_MISSION,BASKET\_SIZE

FROM `nida-workshop.SUPERMARKET.TRANSACTIONS\_2STORES` as T2

where cust\_code is not null

group by cust\_code,basket\_id, SHOP\_WEEKDAY, SHOP\_HOUR,BASKET\_DOMINANT\_MISSION,BASKET\_SIZE

)

group by CustomerID

) as PurchaseTime

on PurchaseTime.CustomerID = T1.cust\_code

where cust\_code is not null

group by cust\_code, TotalSpend\_Median, TotalSpend\_Per75, TotalSpend\_Per25, NumWeekday, NumWeekend, NumMorning, NumAfternoon, NumEvening