Question-1:How many customers are male and female?

select gender,count(gender) as num\_m\_f

from customers

group by gender

Question-2:How many customers do not have DOB information available?

select count(dob) as no\_dob\_users

from customers

where dob = ' '

Question-3:How many customers are there in each pincode and gender combination?

select pincode.pincode,customers.gender,count(customers.cust\_id) as number\_customers

from customers

right join pincode

on customers.primary\_pincode=pincode.pincode

group by pincode.pincode,customers.gender

Question-4:Print Product name and mrp for products which have more than 50,000 MRP

select product\_name,mrp

from products

where mrp>50000

Question-5:How many delivery personal are there in each pincode?

select pincode,count(delivery\_person\_id) num\_delivery\_persons

from delivery\_person

group by pincode

Question-6: For each Pin code, print the count of orders, sum of total amount paid, average amount paid, maximum amount paid,minimum amount paid for the transactions which were paid by 'cash'. Take only 'buy' order types

with tb1 as (select order\_id,delivery\_pincode,cast(total\_amount\_paid as int) as amount\_paid,payment\_type,order\_type

from orders)

select delivery\_pincode,count(order\_id)as total\_orders,sum(amount\_paid)as total\_paid,avg(amount\_paid)as avg\_paid,max(amount\_paid)as max\_paid,min(amount\_paid) as min\_paid

from tb1

where payment\_type='cash' and order\_type='buy'

group by delivery\_pincode

Question-7: For each delivery\_person\_id, print the count of orders and total amount paid for product\_id = 12350 or 12348 and total units > 8.

Sort the output by total amount paid in descending order. Take only 'buy' order types

with tb1 as (select delivery\_person\_id,order\_id,cast(total\_amount\_paid as int) as amount\_paid,tot\_units,order\_type,product\_id

from orders),

tb2 as (select delivery\_person\_id,order\_type,count(order\_id)as count\_order\_id,sum(amount\_paid) as amt\_paid

from tb1

where (product\_id=12350 or product\_id=12348) and tot\_units>8

group by delivery\_person\_id,order\_type)

select \*

from tb2

where order\_type='buy'

Question-8: Print the Full names (first name plus last name) for customers that have email on "gmail.com"?

select first\_name,last\_name

from customers

where email like '%gmail.com'

Question-9: How many orders had #units between 1-3, 4-6 and 7+? Take only 'buy' order types

with tb1 as (select order\_id,order\_type,tot\_units

from orders

where order\_type='buy'),

tb2 as (select order\_id,order\_type,tot\_units,case when tot\_units between 1 and 3 then 'between 1-3'

when tot\_units between 4 and 6 then 'between 4-6'

when tot\_units>=7 then 'above 7' end as num\_of\_units

from tb1)

select num\_of\_units,count(num\_of\_units)count\_of\_units

from tb2

group by num\_of\_units

Question-10: Which pincode has average amount paid more than 150,000? Take only 'buy' order types

with tb1 as (select \*,cast(total\_amount\_paid as int) as new\_total\_amount\_paid

from orders

where order\_type='buy')

select delivery\_pincode,avg(new\_total\_amount\_paid) as avg\_amt\_paid

from tb1

group by delivery\_pincode

having avg(new\_total\_amount\_paid)>150000

Question-11: Which pincode has total amount paid more than average of total amount paid? Take only 'buy' order types

with tb1 as (select \*,cast(total\_amount\_paid as int) as new\_total\_amount\_paid

from orders

where order\_type='buy')

select delivery\_pincode,new\_total\_amount\_paid

from tb1

where new\_total\_amount\_paid>(select avg(new\_total\_amount\_paid)

from tb1)

Question-12: Create following columns from order\_dim data -order\_date,Order day,Order month and Order year

with tb1 as (select order\_date,parse(order\_date as date using 'es-ES') as new\_order\_date

from orders)

select order\_date,datepart(day,new\_order\_date) as order\_day,datepart(month,new\_order\_date) as order\_month,

datepart(year,new\_order\_date) as order\_year

from tb1

Question-13: How many total orders were there in each month and how many of them were returned?

with tb1 as (select \*,parse(order\_date as date using 'es-ES') as new\_order\_date

from orders),

tb2 as (select order\_type,datepart(month,new\_order\_date) as order\_month

from tb1)

select order\_month,order\_type,count(order\_type) as bought\_or\_return

from tb2

group by order\_month,order\_type

order by order\_month

Question-14: Add a column for return rate, return rate = (100.0 \* total return orders) / total buy orders

with tb1 as (select \*,parse(order\_date as date using 'es-ES') as new\_order\_date

from orders),

tb2 as (select datepart(month,new\_order\_date) as order\_month,\*

from tb1),

tb3 as (select order\_month,sum(case when order\_type='buy' then 1 else 0 end )as bought,sum(case when order\_type='return' then 1 else 0 end) as returned

from tb2

group by order\_month),

tb4 as (select order\_month,cast(bought as float) as bought,cast(returned as float) as returned

from tb3)

select \*,round((returned/bought)\*100,2) as return\_rate\_in\_percentage

from tb4

order by order\_month

Question-15: How many units have been sold by each brand? Also get total returned units for each brand.

with tb1 as (select products.product\_id,products.brand,orders.order\_type

from orders

left join products

on orders.product\_id=products.product\_id)

select brand,order\_type,count(order\_type) as bought\_or\_return\_count

from tb1

group by brand,order\_type

Question-16: How many distinct customers and delivery boys are there in each state.

with tb1 as (select customers.cust\_id,pincode.state,delivery\_person.delivery\_person\_id

from customers

left join pincode

on customers.primary\_pincode=pincode.pincode

left join delivery\_person

on pincode.pincode=delivery\_person.pincode)

select state,count (distinct cust\_id)as num\_unique\_customers,count(distinct delivery\_person\_id) as num\_unique\_delivery\_person

from tb1

group by state

Question-17: For every customer, print how many total units were ordered?

select cust\_id,sum(cast(tot\_units as int)) as total\_units\_ordered

from orders

group by cust\_id

order by cust\_id

Question-18: For every customer, print how many units were ordered from their primary\_pincode and delivered in the same pincode,and how many were ordered from the primary\_pincode and delivered in different pincode?

with tb1 as (select customers.cust\_id,customers.primary\_pincode,orders.order\_id,orders.tot\_units,orders.delivery\_pincode

from customers

left join orders

on customers.cust\_id=orders.cust\_id)

select cust\_id,primary\_pincode,sum(case when primary\_pincode=delivery\_pincode then tot\_units else 0 end)as same\_city,

sum(case when primary\_pincode!=delivery\_pincode then tot\_units else 0 end) as different\_city

from tb1

group by cust\_id,primary\_pincode

order by cust\_id

Question-19: For each product name, print the sum of number of units, total amount paid, total displayed selling price, total mrp of these units, and finally the net discount from selling price (i.e. 100.0 - 100.0 \* total amount paid / total displayed selling price) AND the net discount from mrp (i.e. 100.0 - 100.0 \* total amount paid / total mrp)

with tb1 as (select products.product\_name,orders.tot\_units,orders.total\_amount\_paid,orders.displayed\_selling\_price\_per\_unit,

products.mrp

from orders

left join products

on orders.product\_id=products.product\_id),

tb2 as (select product\_name,cast(total\_amount\_paid as float) as total\_amount\_paid,cast(tot\_units as float) as tot\_units,

cast(displayed\_selling\_price\_per\_unit as float) as displayed\_selling\_price\_per\_unit,cast(mrp as float) as mrp

from tb1),

tb3 as (select product\_name,sum(tot\_units) as total\_units,sum(total\_amount\_paid) as amount\_paid,

sum(tot\_units\*displayed\_selling\_price\_per\_unit) as total\_selling\_price\_per\_unit,sum(tot\_units\*mrp) as total\_mrp

from tb2

group by product\_name),

tb4 as (select \*,( 100.0 - 100.0\*amount\_paid / total\_selling\_price\_per\_unit) as net\_discount\_wrt\_sp,

( 100.0 - 100.0\*amount\_paid /total\_mrp) as net\_discount\_wrt\_mrp

from tb3)

select product\_name,total\_units,amount\_paid,total\_selling\_price\_per\_unit,total\_mrp,round(net\_discount\_wrt\_sp,2) as net\_discount\_wrt\_sp,

round(net\_discount\_wrt\_mrp,2) as net\_discount\_wrt\_mrp

from tb4

Question-20: For every order\_id (exclude returns), get the product name and calculate the discount percentage from selling price. Sort by highest discount and print only those rows where discount percentage was above 10.10%.

with tb1 as (select orders.order\_id,orders.order\_type,cast(orders.tot\_units as float) as tot\_units,

cast(displayed\_selling\_price\_per\_unit as float) as displayed\_selling\_price\_per\_unit,

cast(total\_amount\_paid as float) as total\_amount\_paid,products.product\_name,products.product\_id

from orders

left join products

on orders.product\_id=products.product\_id

where orders.order\_type='buy'),

tb2 as (select order\_id,product\_name,order\_type,

round(((tot\_units\*displayed\_selling\_price\_per\_unit)-(total\_amount\_paid))/(tot\_units\*displayed\_selling\_price\_per\_unit)\*100,2) as discount\_percentage

from tb1)

select order\_id,product\_name,order\_type,discount\_percentage

from tb2

where discount\_percentage>=10.10

Question-21: For every delivery person(use their name), print the total number of order ids (exclude returns)

by month in seperate columns i.e. there should be one row for each delivery\_person\_id and 12 columns for every month in the year

with tb1 as (select delivery\_person.name,parse(order\_date as date using 'es-ES') as new\_order\_date,order\_id

from delivery\_person

left join orders

on delivery\_person.delivery\_person\_id=orders.delivery\_person\_id

where order\_type='buy'),

tb2 as (select name,order\_id,datepart(month,new\_order\_date) as order\_month

from tb1)

select name,count(case when order\_month=1 then order\_id end) as jan,

count(case when order\_month=2 then order\_id end) as feb,

count(case when order\_month=3 then order\_id end) as mar,

count(case when order\_month=4 then order\_id end) as apr,

count(case when order\_month=5 then order\_id end) as may,

count(case when order\_month=6 then order\_id end) as jun,

count(case when order\_month=7 then order\_id end) as july,

count(case when order\_month=8 then order\_id end) as aug,

count(case when order\_month=9 then order\_id end) as sep,

count(case when order\_month=10 then order\_id end) as oct,

count(case when order\_month=11 then order\_id end) as nov,

count(case when order\_month=12 then order\_id end) as dec

from tb2

group by name

Question-22: For each gender - male and female - find the absolute and percentage profit by product name

with tb1 as (select cast(orders.tot\_units as float)as tot\_units,

cast(orders.displayed\_selling\_price\_per\_unit as float) as displayed\_selling\_price\_per\_unit,

cast(orders.total\_amount\_paid as float) as total\_amount\_paid ,customers.gender,products.product\_name

from customers

left join orders

on customers.cust\_id=orders.cust\_id

left join products

on orders.product\_id=products.product\_id

where order\_type='buy'),

tb2 as (select \*,tot\_units\*displayed\_selling\_price\_per\_unit as total\_selling\_price

from tb1)

select gender,product\_name,(total\_selling\_price-total\_amount\_paid)as absolute\_profit,

round((100-((total\_amount\_paid/total\_selling\_price)\*100)),2) as profit\_percentage

from tb2