1. Provide the list of markets in which customer "Atliq Exclusive" operates its

business in the APAC region.

select distinct market from dim\_customer

where customer = "Atliq Exclusive"

and region = "APAC"

2. What is the percentage of unique product increase in 2021 vs. 2020? The

final output contains these fields,

unique\_products\_2020

unique\_products\_2021

percentage-chg

With cte1 as

(select count(distinct product\_code) as unique\_products\_2020

from fact\_sales\_monthly

where fiscal\_year=2020)

,

cte2 as

(select count(distinct product\_code) as unique\_products\_2021

from fact\_sales\_monthly

where fiscal\_year=2021)

select

cte1.unique\_products\_2020,

cte2.unique\_products\_2021,

round((cte2.unique\_products\_2021-cte1.unique\_products\_2020)/cte1.unique\_products\_2020\*100,2) as percentage\_chg

from cte1, cte2

3. Provide a report with all the unique product counts for each segment and

sort them in descending order of product counts. The final output contains

2 fields,

segment

product\_count

select

segment,

count(distinct product) as product\_count

from dim\_product

group by segment

order by product\_count desc

4. Follow-up: Which segment had the most increase in unique products in

2021 vs 2020? The final output contains these fields,

segment

unique\_products\_2020

unique\_products\_2021

difference

with cte1 as

(select

p.segment,

count(distinct f.product\_code) as product\_count\_2020

from fact\_sales\_monthly f

join dim\_product p

on f.product\_code = p.product\_code

where fiscal\_year= 2020

group by p.segment),

cte2 as

(select

p.segment,

count(distinct f.product\_code) as product\_count\_2021

from fact\_sales\_monthly f

join dim\_product p

on f.product\_code = p.product\_code

where fiscal\_year= 2021

group by p.segment)

select

cte1.segment, product\_count\_2020,product\_count\_2021,

product\_count\_2021-product\_count\_2020 as difference

from cte1

join cte2

on cte1.segment = cte2.segment

order by difference desc

5. Get the products that have the highest and lowest manufacturing costs.

The final output should contain these fields,

product\_code

product

manufacturing\_cost

select m.product\_code,

p.product,

m.manufacturing\_cost

from gdb023.fact\_manufacturing\_cost m

join dim\_product p

on m.product\_code = p.product\_code

where m.manufacturing\_cost = (select max(manufacturing\_cost) from fact\_manufacturing\_cost) or

m.manufacturing\_cost= (select min(manufacturing\_cost) from fact\_manufacturing\_cost)

order by m.manufacturing\_cost desc

6. Generate a report which contains the top 5 customers who received an

average high pre invoice discount

\_pct for the fiscal year 2021 and in the Indian market. The final output contains these fields,

customer

code\_customer

average\_discount\_percentage

SELECT

c.customer\_code,

c.customer,

ROUND(AVG(f.pre\_invoice\_discount\_pct), 4) AS average\_discount\_percentage

FROM fact\_pre\_invoice\_deductions f

JOIN dim\_customer c

ON f.customer\_code = c.customer\_code

WHERE f.fiscal\_year = 2021

AND c.market = 'India'

GROUP BY c.customer\_code, c.customer

ORDER BY average\_discount\_percentage DESC

LIMIT 5;

7. Get the complete report of the Gross sales amount for the customer **“Atliq**

**Exclusive”** for each month. This analysis helps to get an idea of low and

high-performing months and take strategic decisions.

The final report contains these columns:

Month

Year

Gross sales Amount

select

Monthname(s.date) as Month,

year(s.date) as Year,

Round(Sum(sold\_quantity \* gross\_price),2) as Gross\_sales\_amount

from fact\_sales\_monthly s

left join dim\_customer

using(customer\_code)

left join fact\_gross\_price g

on s.product\_code = g.product\_code and s.fiscal\_year=g.fiscal\_year

where customer = "Atliq Exclusive"

group by Year, Month

order by Gross\_sales\_amount desc

8. In which quarter of 2020, got the maximum total\_sold\_quantity? The final output contains these fields sorted by the total\_sold\_quantity,

Quarter

total\_sold\_quantity

Select

case

when month(s.date) in (9,10,11) then 'Q1'

when month(s.date) in (12,1,2) then 'Q2'

when month(s.date) in (3,4,5) then 'Q3'

when month(s.date) in (6,7,8) then 'Q4'

end as quarter,

sum(s.sold\_quantity) as total\_sold\_quantity

from fact\_sales\_monthly as s

where year(s.date) = 2020

group by quarter

order by total\_sold\_quantity desc

limit 1

9. Which channel helped to bring more gross sales in the fiscal year 2021

and the percentage of contribution? The final output contains these fields,

channel

gross\_sales\_mln

percentage

select

c.channel,

round(sum(sold\_quantity \* gross\_price)/1000000,2) as gross\_price\_mln,

round(sum(sold\_quantity \* gross\_price)\*100/(SELECT SUM(s.sold\_quantity \* g.gross\_price)AS total\_gross\_sales

FROM fact\_sales\_monthly s

LEFT JOIN fact\_gross\_price g

ON g.product\_code = s.product\_code AND g.fiscal\_year = s.fiscal\_year

WHERE s.fiscal\_year = 2021),2) as Percentage

from fact\_sales\_monthly s

left join dim\_customer c

using(customer\_code)

left join fact\_gross\_price g

on g.product\_code=s.product\_code and g.fiscal\_year=s.fiscal\_year

where s.fiscal\_year= 2021

group by c.channel

order by gross\_price\_mln desc

10. Get the Top 3 products in each division that have a high

total\_sold\_quantity in the fiscal\_year 2021? The final output contains these

fields,

division

product\_code

product

total\_sold\_quantity

rank\_order

with cte1 as

(select

p.division,

p.product\_code,

p.product,

sum(sold\_quantity) as total\_sold\_quantity,

row\_number() over(partition by division order by sum(sold\_quantity) desc) as rnk\_order

from fact\_sales\_monthly s

left join dim\_product p

using (product\_code)

where fiscal\_year = 2021

group by division, product\_code,product)

select \* from cte1

where rnk\_order<=3

order by division,rnk\_order