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

## operates its business in the APAC region.

SELECT Market, Customer, region 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

Select \* from fact\_sales\_monthly;

with Unique\_products\_2020 as (

Select count(distinct product) as dis2020 from dim\_product dp

join fact\_sales\_monthly fsm on dp.product\_code = fsm.product\_code

where fiscal\_year = 2020),

Unique\_products\_2021 as (Select count(distinct product) as dis2021 from dim\_product dp

join fact\_sales\_monthly fsm on dp.product\_code = fsm.product\_code

where fiscal\_year = 2021)

Select dis2020,dis2021,

Round((dis2021 - dis2020)/dis2020\*100,2) as percentage\_chg from

Unique\_products\_2020,Unique\_products\_2021;



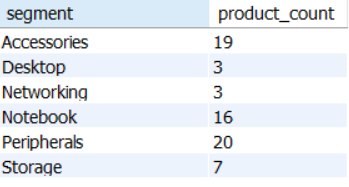
## 3 Provide a report with all the unique product counts for each segment and

## 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 dp

join fact\_sales\_monthly fsm on dp.product\_code = fsm.product\_code group by segment;



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

## 2021 vs 2020? The final output contains these fields,segment, product\_count\_2020, product\_count\_2021,difference

WITH Unique\_products\_2020 AS (

SELECT

segment,

COUNT(DISTINCT product) AS product\_count\_2020

FROM

dim\_product dp

JOIN

fact\_sales\_monthly fsm

ON

dp.product\_code = fsm.product\_code

WHERE

fiscal\_year = 2020

GROUP BY

segment

),

Unique\_products\_2021 AS (

SELECT

segment,

COUNT(DISTINCT product) AS product\_count\_2021

FROM

dim\_product dp

JOIN

fact\_sales\_monthly fsm

ON

dp.product\_code = fsm.product\_code

WHERE

fiscal\_year = 2021

GROUP BY

segment

)

SELECT

u2020.segment,

u2020.product\_count\_2020,

u2021.product\_count\_2021,

(u2021.product\_count\_2021 - u2020.product\_count\_2020) AS difference

FROM

Unique\_products\_2020 u2020

JOIN

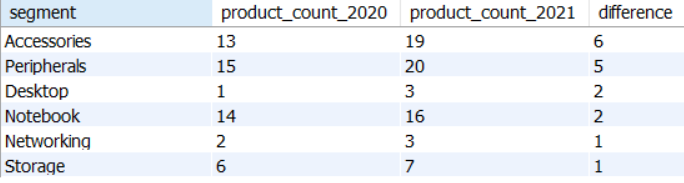
Unique\_products\_2021 u2021

ON

u2020.segment = u2021.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

with x as (Select product,dp.product\_code,manufacturing\_cost from dim\_product DP join

fact\_manufacturing\_cost FMC on DP.Product\_code = fmc.Product\_code

order by manufacturing\_cost desc limit 1),

y as (Select product,dp.product\_code,manufacturing\_cost from dim\_product DP join

fact\_manufacturing\_cost FMC on DP.Product\_code = fmc.Product\_code

order by manufacturing\_cost asc limit 1)

select \* from x union select \* from y;

WITH ranked\_products AS (

SELECT

product,

dp.product\_code,

manufacturing\_cost,

RANK() OVER (ORDER BY manufacturing\_cost ASC) AS rank\_asc,

RANK() OVER (ORDER BY manufacturing\_cost DESC) AS rank\_desc

FROM dim\_product DP

JOIN fact\_manufacturing\_cost FMC

ON DP.product\_code = FMC.product\_code

)

SELECT

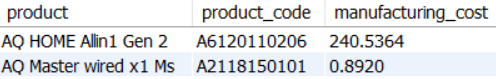
product,

product\_code,

manufacturing\_cost

FROM ranked\_products

WHERE rank\_asc = 1 OR rank\_desc = 1;



## 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

fsm.customer\_code,

customer,

AVG(pre\_invoice\_discount\_pct) AS average\_discount\_percentage

FROM

fact\_pre\_invoice\_deductions FPID

JOIN

dim\_customer dC ON fpid.customer\_code = dc.customer\_code

JOIN

fact\_sales\_monthly fsm ON dc.customer\_code = fsm.customer\_code

WHERE

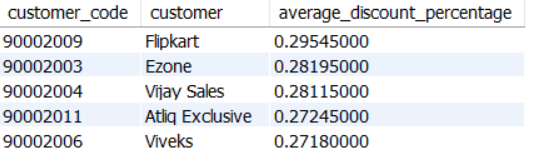
fsm.fiscal\_year = 2021

AND market = 'india'

GROUP BY fsm.customer\_code , 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.

with x as (SELECT

MONTH(date) AS month,

YEAR(date) AS year,

ROUND((gross\_price \* Sold\_quantity), 2) AS total\_sales

FROM

fact\_gross\_price fgp

JOIN

fact\_sales\_monthly fsm ON fgp.product\_code = fsm.product\_code

JOIN

dim\_customer dm ON fsm.customer\_code = dm.customer\_code

WHERE

customer = 'Atliq Exclusive')

SELECT

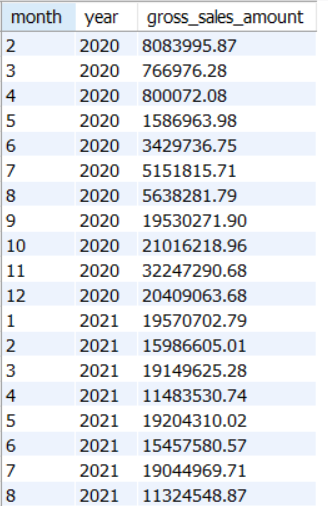
month, year, SUM(total\_sales) AS gross\_sales\_amount

FROM

x

GROUP BY month , year

ORDER BY year ASC, month asc;



## 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

YEAR(date) AS year,

QUARTER(date) AS quarter,

SUM(Sold\_quantity) AS total\_sold\_quantity

FROM

fact\_sales\_monthly

WHERE

YEAR(date) = 2020

GROUP BY YEAR(date) , QUARTER(date)

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

WITH x AS (

SELECT

dm.channel,

SUM(ROUND(gross\_price \* Sold\_quantity, 2)) AS channel\_sales

FROM

fact\_gross\_price fgp

JOIN

fact\_sales\_monthly fsm ON fgp.product\_code = fsm.product\_code

JOIN

dim\_customer dm ON fsm.customer\_code = dm.customer\_code

WHERE

fsm.fiscal\_year = 2021

GROUP BY

dm.channel

),

y AS (

SELECT

SUM(channel\_sales) AS total\_sales

FROM

x

)

SELECT

x.channel,

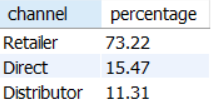
ROUND((x.channel\_sales / y.total\_sales) \* 100, 2) AS percentage

FROM

x, y

ORDER BY

percentage 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 RankedProducts AS (

SELECT

division,

dp.product\_code,

dp.product,

SUM(fsm.sold\_quantity) AS total\_sold\_quantity,

RANK() OVER (PARTITION BY division ORDER BY SUM(fsm.sold\_quantity) DESC) AS rank\_order

FROM

dim\_product dp

JOIN

fact\_sales\_monthly fsm

ON

dp.product\_code = fsm.product\_code

WHERE

fsm.fiscal\_year = 2021

GROUP BY

division, dp.product\_code, dp.product

)

SELECT

\*

FROM

RankedProducts

WHERE

rank\_order <= 3

ORDER BY

division, rank\_order;

