**Atliq Hardware**



By: Priyam Jain

Requests:

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

Answer:

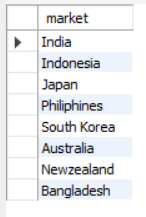
SELECT

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.

Answer:

WITH unique\_products AS (

SELECT

fiscal\_year,

COUNT(DISTINCT product\_code) AS unique\_products

FROM fact\_sales\_monthly

WHERE fiscal\_year IN (2020, 2021)

GROUP BY fiscal\_year

)

SELECT

MAX(CASE WHEN fiscal\_year = 2020 THEN unique\_products END) AS unique\_products\_2020,

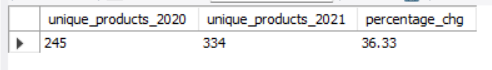
MAX(CASE WHEN fiscal\_year = 2021 THEN unique\_products END) AS unique\_products\_2021,

round((MAX(CASE WHEN fiscal\_year = 2021 THEN unique\_products END) - MAX(CASE WHEN fiscal\_year = 2020 THEN unique\_products END)) \* 100.0 /

MAX(CASE WHEN fiscal\_year = 2020 THEN unique\_products END), 2) AS percentage\_chg

FROM

unique\_products;



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

Answer:

select

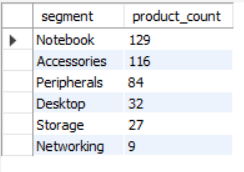
segment,

count(distinct(product\_code)) 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 product\_count\_2020 product\_count\_2021 difference

Answer:

WITH unique\_products AS (

SELECT

dim\_product.segment,

fiscal\_year,

COUNT(DISTINCT product\_code) AS unique\_products

FROM fact\_sales\_monthly join dim\_product using (product\_code)

WHERE fiscal\_year IN (2020, 2021)

GROUP BY dim\_product.segment, fiscal\_year

)

SELECT

segment,

MAX(CASE WHEN fiscal\_year = 2020 THEN unique\_products END) AS product\_count\_2020,

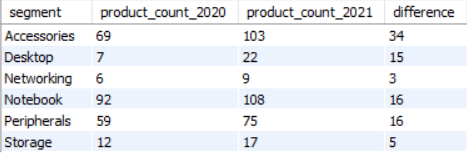
MAX(CASE WHEN fiscal\_year = 2021 THEN unique\_products END) AS product\_count\_2021,

(MAX(CASE WHEN fiscal\_year = 2021 THEN unique\_products END) - MAX(CASE WHEN fiscal\_year = 2020 THEN unique\_products END)) AS difference

FROM

unique\_products

group by segment;



5. Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields, product\_code product manufacturing\_cost

Answer:

WITH manufacturing\_costs AS (

SELECT

dp.product\_code,

dp.product,

fmc.manufacturing\_cost,

RANK() OVER (ORDER BY fmc.manufacturing\_cost DESC) AS rank\_highest,

RANK() OVER (ORDER BY fmc.manufacturing\_cost ASC) AS rank\_lowest

FROM dim\_product dp

JOIN fact\_manufacturing\_cost fmc

ON dp.product\_code = fmc.product\_code

)

SELECT

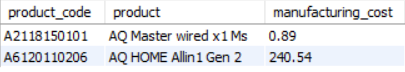
product\_code,

product,

round(manufacturing\_cost, 2)

FROM manufacturing\_costs

WHERE rank\_highest = 1 OR rank\_lowest = 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

Answer:

select

customer\_code,

c.customer,

ROUND(pre\_invoice\_discount\_pct\*100,2) AS average\_discount\_percentage

from fact\_pre\_invoice\_deductions

join dim\_customer c using(customer\_code)

where pre\_invoice\_discount\_pct >

(select avg(pre\_invoice\_discount\_pct) as average\_discount\_percentage

from fact\_pre\_invoice\_deductions

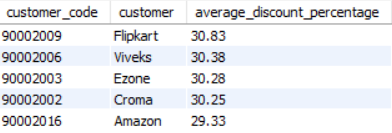
where fiscal\_year = 2021)

and fiscal\_year = 2021

and c.market = "India"

ORDER BY pre\_invoice\_discount\_pct DESC

LIMIT 5;



7. Get the complete report of the Gross sales amount for the customer “Atliq Exclusive” for each month. The final report contains these columns: Month Year Gross sales Amount

Answer:

select

month(sm.date) as Month,

year(sm.date) as Year,

round(sum(sm.sold\_quantity\*gp.gross\_price)) as Gross\_Sales\_Amount

from fact\_sales\_monthly sm

join fact\_gross\_price gp

on sm.product\_code = gp.product\_code

and sm.fiscal\_year = gp.fiscal\_year

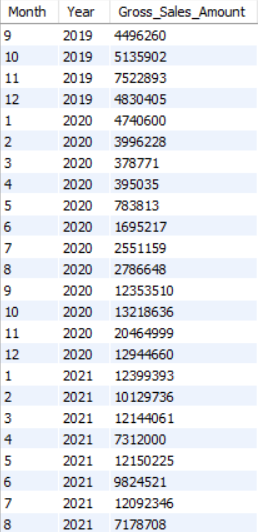
join dim\_customer c

on sm.customer\_code = c.customer\_code

where c.customer = "Atliq Exclusive"

group by sm.date

order by Year and 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

Answer:

SELECT

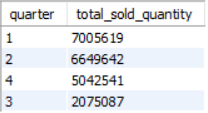
quarter(DATE\_ADD(date, INTERVAL 4 MONTH)) AS quarter, sum(sold\_quantity) AS

total\_sold\_quantity

FROM fact\_sales\_monthly

WHERE fiscal\_year = 2020

GROUP BY quarter ORDER BY total\_sold\_quantity DESC;



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

Answer:

with cte1 as

(select

c.channel,

round(sum(sm.sold\_quantity\*gp.gross\_price)) as gross\_sales\_Mln

from fact\_sales\_monthly sm

join fact\_gross\_price gp

on sm.product\_code = gp.product\_code

and sm.fiscal\_year = gp.fiscal\_year

join dim\_customer c

on sm.customer\_code = c.customer\_code

where year(date) = 2021

group by c.channel)

SELECT

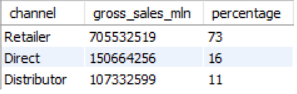
channel,

gross\_sales\_mln,

ROUND(gross\_sales\_mln/(SELECT sum(gross\_sales\_mln) FROM cte1)\*100) AS percentage

FROM cte1

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.

Answer:

with cte1 AS

(SELECT

division,

sm.product\_code,

product,

sum(sold\_quantity) AS total\_sold\_quantity

FROM fact\_sales\_monthly sm

JOIN dim\_product p

ON sm.product\_code=p.product\_code

WHERE "2021"

GROUP BY p.product\_code, p.division, p.product

ORDER BY p.division DESC, total\_sold\_quantity desc)

SELECT \* FROM ( SELECT \*, row\_number() OVER(PARTITION BY division ORDER BY total\_sold\_quantity

DESC) AS rank\_order FROM cte1)

RANKED

WHERE rank\_order <= 3;

