**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";

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AI-generated content may be incorrect.

**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 change*

WITH

cte1 AS

(SELECT count(distinct product\_code) as product\_count\_2020

FROM fact\_sales\_monthly WHERE fiscal\_year = "2020"),

cte2 AS

(SELECT count(distinct product\_code) as product\_count\_2021

FROM fact\_sales\_monthly WHERE fiscal\_year = "2021")

SELECT \*,

round((product\_count\_2021- product\_count\_2020)\*100/ product\_count\_2020,0) AS percentage\_change

FROM cte1 JOIN cte2;

A computer screen shot of a computer

AI-generated content may be incorrect.

**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\_code) as product\_count

FROM dim\_product

GROUP BY segment

ORDER BY product\_count DESC;

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AI-generated content may be incorrect.

**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

cte1 as (SELECT

segment, count(distinct p.product\_code) as product\_count\_2020

FROM dim\_product p

JOIN fact\_sales\_monthly

USING (product\_code)

WHERE fiscal\_year= "2020"

GROUP BY segment),

cte2 as

(SELECT

segment, count(distinct p.product\_code) as product\_count\_2021

FROM dim\_product p

JOIN fact\_sales\_monthly

USING (product\_code)

WHERE fiscal\_year= "2021"

GROUP BY segment)

SELECT c1.segment, c1.product\_count\_2020, c2.product\_count\_2021, c2.product\_count\_2021 - c1.product\_count\_2020 AS difference

FROM cte1 c1 JOIN cte2 c2 USING (segment)

ORDER BY difference desc;

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AI-generated content may be incorrect.

**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 product\_code, p.product,

round(m.manufacturing\_cost,1) as manufacturing\_cost

FROM fact\_manufacturing\_cost m

JOIN dim\_product p

USING (product\_code)

ORDER BY manufacturing\_cost desc LIMIT 1)

UNION

(SELECT product\_code, p.product,

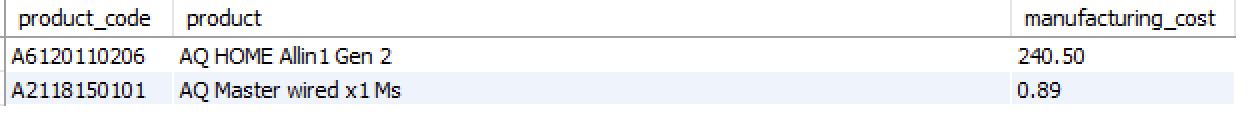
round(m.manufacturing\_cost,2) as manufacturing\_cost

FROM fact\_manufacturing\_cost m

JOIN dim\_product p

USING (product\_code)

ORDER BY manufacturing\_cost asc LIMIT 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 customer\_code, customer,

round(avg(pre\_invoice\_discount\_pct\*100),1) AS average\_discount\_percentage

FROM fact\_pre\_invoice\_deductions d

JOIN dim\_customer c

USING (customer\_code)

WHERE market= "India" and fiscal\_year = "2021"

group by customer, customer\_code

order by average\_discount\_percentage desc LIMIT 5;

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AI-generated content may be incorrect.

**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

MONTH(date) AS calendar\_month,

YEAR(date) AS calendar\_year,

sum(round((sold\_quantity\*gross\_price)/1000000,3)) AS gross\_sales

FROM fact\_sales\_monthly

JOIN fact\_gross\_price USING (product\_code, fiscal\_year)

JOIN dim\_customer USING (customer\_code)

WHERE customer = "Atliq Exclusive"

GROUP BY calendar\_month, calendar\_year, fiscal\_year ORDER BY calendar\_year ;

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AI-generated content may be incorrect.

**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*

User defined function for fiscal\_quarter

CREATE DEFINER=`root`@`localhost` FUNCTION `fiscal\_qtr`(calender\_date date) RETURNS char(2) CHARSET utf8mb4

DETERMINISTIC

BEGIN

DECLARE m tinyint;

DECLARE qtr char(2);

SET m = month(calender\_date);

CASE

WHEN m IN (9,10,11) THEN SET qtr = "Q1";

WHEN m IN (12,1,2) THEN SET qtr = "Q2";

WHEN m IN (3,4,5) THEN SET qtr = "Q3";

ELSE SET qtr = "Q4";

END CASE;

RETURN qtr;

END

WITH cte1

AS

(SELECT

fiscal\_year, fiscal\_qtr(date) as qtr, sum(sold\_quantity) as total\_sold\_quantity

FROM fact\_sales\_monthly

WHERE fiscal\_year= "2020"

GROUP BY qtr

)

SELECT \* FROM cte1

ORDER BY total\_sold\_quantity DESC;

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AI-generated content may be incorrect.

**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*

VIEW gross\_sale AS  
(SELECT

g.fiscal\_year, g.product\_code,

s.customer\_code, s.sold\_quantity, round(g.gross\_price,1),

round(s.sold\_quantity\*g.gross\_price,1) as gross\_sales

FROM gdb023.fact\_sales\_monthly s

JOIN fact\_gross\_price g

USING (product\_code, fiscal\_year)

WITH

cte1

AS (SELECT

channel,

round(sum(gross\_sales)/1000000,1) AS gross\_sales\_mln, fiscal\_year

FROM dim\_customer

JOIN gross\_sale

USING (customer\_code)

WHERE fiscal\_year="2021"

GROUP BY channel),

cte2

AS (SELECT

round(sum(gross\_sales)/1000000,1) AS total\_gross\_sales

FROM gross\_sale

where fiscal\_year="2021")

SELECT \*, round(gross\_sales\_mln\*100/total\_gross\_sales,1) AS percentage

FROM cte1

JOIN cte2;

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**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(s.sold\_quantity) AS total\_sold\_quantity

FROM fact\_sales\_monthly s

JOIN dim\_product p

USING (product\_code)

WHERE fiscal\_year = "2021"

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

ORDER BY division and product

),

cte2 AS

(

SELECT \*,

RANK() OVER (partition by division order by total\_sold\_quantity desc) as rank\_order

FROM cte1

)

SELECT \* FROM cte2 WHERE rank\_order<=3;

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