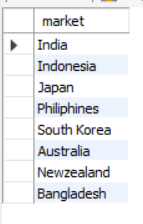
1. **Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC region.**

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**

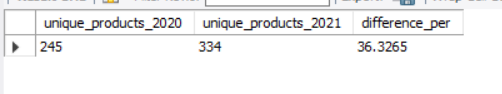
with totalunique\_2020 as (

select distinct count(product\_code) as unique\_products\_2020 from fact\_gross\_price where fiscal\_year = 2020 ),

totalunique\_2021 as (

select distinct count(product\_code) as unique\_products\_2021 from fact\_gross\_price where fiscal\_year = 2021 )

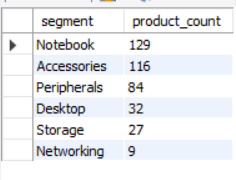
select \*, ( (unique\_products\_2021 - unique\_products\_2020 ) \* 100 /unique\_products\_2020) as difference\_per from totalunique\_2020, totalunique\_2021;



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 distinct segment, count(product) as product\_count from dim\_product group by segment order by product\_count desc;



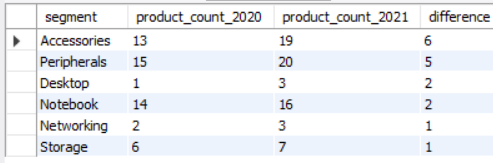
4. **Follow-up: Which segment had the most increase in unique products in 2021 vs 2020?**

**The final output contains these fields, segment product\_count\_2020 product\_count\_2021 difference**

with totalunique\_2020 as (select p.segment , count(distinct(p.product)) as product\_count\_2020 from dim\_product p join fact\_sales\_monthly s on s.product\_code = p.product\_code where fiscal\_year = 2020 group by segment ),

totalunique\_2021 as (select p.segment , count(distinct(p.product)) as product\_count\_2021 from fact\_sales\_monthly s join dim\_product p on s.product\_code = p.product\_code where s.fiscal\_year = 2021 group by segment )

select segment, product\_count\_2020, product\_count\_2021, ( product\_count\_2021 - product\_count\_2020 ) as difference from totalunique\_2020 join totalunique\_2021 using(segment) group by 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 max\_cte as (select p.product as max\_product , p.product\_code as max\_product\_code , max(m.manufacturing\_cost) as max\_cost from dim\_product p join fact\_manufacturing\_cost m on p.product\_code = m.product\_code group by p.product, p.product\_code order by max\_cost desc limit 1),

min\_cte as (select '\n', p.product as min\_product, p.product\_code as min\_product\_code, min(m.manufacturing\_cost) as min\_cost from dim\_product p join fact\_manufacturing\_cost m on p.product\_code = m.product\_code group by p.product, p.product\_code order by min\_cost limit 1 )

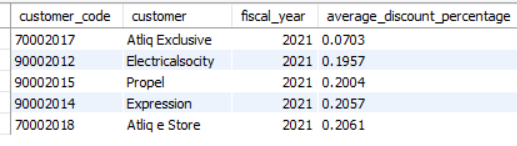
select \* from max\_cte, min\_cte

****

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**

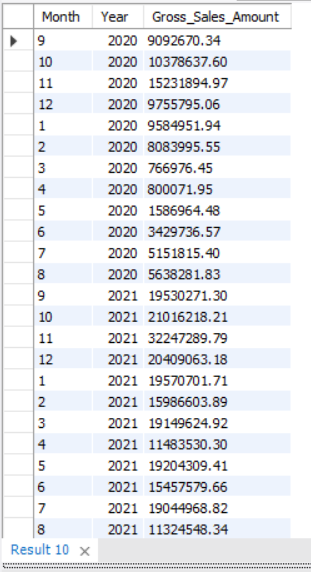
select distinct c.customer\_code , c.customer,p.fiscal\_year, round(avg(p.pre\_invoice\_discount\_pct),4) as average\_discount\_percentage from fact\_pre\_invoice\_deductions p join dim\_customer c on c.customer\_code = p.customer\_code where p.fiscal\_year = 2021 and c.market = "India" group by p.fiscal\_year, c.customer\_code , c.customer order by average\_discount\_percentage 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 month(s.date) as Month, s.fiscal\_year as Year, Round(sum(g.gross\_price \* s.sold\_quantity),2) as Gross\_Sales\_Amount from dim\_customer c join fact\_sales\_monthly s on s.customer\_code = c.customer\_code join fact\_gross\_price g on g.product\_code = s.product\_code where c.customer = "Atliq Exclusive" group by month(s.date), s.fiscal\_year order by s.fiscal\_year



**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(date) in (9,10,11) then 'Q1' when month(date) in (12,1,2) then 'Q2' when month(date) in (3,4,5) then 'Q3' when month(date) in (6,7,8) then 'Q4' END 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 limit 1;

****

**9. Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution?**

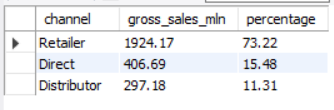
**The final output contains these fields, channel gross\_sales\_mln percentage**

**// dividing by 1,000,000 is a common way to convert a large value (like total sales in basic currency units) into millions**

with Totalgross as

(select c.channel , round(SUM(g.gross\_price \* s.sold\_quantity)/ 1000000 , 2) as gross\_sales\_mln from dim\_customer c join fact\_sales\_monthly s on s.customer\_code = c.customer\_code join fact\_gross\_price g on g.product\_code = s.product\_code where s.fiscal\_year = 2021 group by c.channel order by gross\_sales\_mln desc )

select \*, round (gross\_sales\_mln \* 100 / SUM(gross\_sales\_mln) over() ,2) as percentage from Totalgross 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 TOTALSALES as (

select distinct p.division, p.product\_code, p.product, sum(s.sold\_quantity) as total\_sales\_quantity from dim\_product p join fact\_sales\_monthly s on

p.product\_code = s.product\_code where fiscal\_year = 2021 group by p.division, p.product\_code, p.product ) ,

RANKEDPRODUCTS AS ( select \*, RANK() OVER (partition by division ORDER BY total\_sales\_quantity DESC) AS rank\_order from TOTALSALES )

select \* from RANKEDPRODUCTS where rank\_order<=3;

