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))
from fact_sales_monthly
where fiscal_year=2020
),
cte2 as
(
select count(distinct(product_code))
from fact_sales_monthly
where fiscal_year=2021
)
select (select * from cte1) as unique_products_2020,
(select * from cte2) as unique_products_2021,
round(
((select * from cte2)-(select * from cte1))*100/(select * from cte1),2) as pct_change
```

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(product) product_count
FROM gdb023.dim_product
group by segment
order by product_count desc;
```

4. 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 cte as (SELECT p.segment,
   count(distinct CASE WHEN s.fiscal_year = 2020 THEN s.product_code END) AS
product_count_2020,
   count(distinct CASE WHEN s.fiscal_year = 2021 THEN s.product_code END) AS
product_count_2021
FROM
   fact_sales_monthly s
join dim_product p on s.product_code=p.product_code
Group by p.segment)

select * ,product_count_2021-product_count_2020 as difference from cte;
```

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 manufacturing_cost in
((select max(manufacturing_cost) from fact_manufacturing_cost),(select min(manufacturing_cost) from fact_manufacturing_cost))
order by 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 d.customer_code,c.customer,round(avg(d.pre_invoice_discount_pct),4) as average_discount_percentage
 FROM dim_customer c
 join fact_pre_invoice_deductions d on c.customer_code=d.customer_code
 where d.fiscal_year =2021 and c.market="India"
 group by d.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 month(s.date) as month,s.fiscal_year,round(sum(s.sold_quantity*g.gross_price),2) as
Gross_sales_Amount
FROM fact_sales_monthly s
join fact_gross_price g on g.fiscal_year=s.fiscal_year
join dim_customer c on c.customer_code=s.customer_code
where customer = "Atliq Exclusive"
Group by  month, 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

```
with cte as (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)

select * from cte
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

```
with cte as (SELECT c.channel, round(sum((s.sold_quantity*g.gross_price)/100000),2) as
gross_sales_mln

FROM fact_sales_monthly s

join  dim_customer c 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)

select channel , gross_sales_mln,round(gross_sales_mln/(select sum(gross_sales_mln) from
cte)*100,2)  as percentage

from cte

order by gross_sales_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 cte as (SELECT p.division,p.product_code,p.product,sum(s.sold_quantity) as total_sold_quantity,

rank() over(partition by division order by sum(s.sold_quantity) desc) as rank_order

FROM gdb023.fact_sales_monthly s

join dim_product p on p.product_code=s.product_code

where fiscal_year=2021

group by p.division,p.product_code,p.product)

select *  from cte

where rank_order in (1,2,3)

order by division,rank_order;
```