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

```
SELECT 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

```
#Unique product increase in 2021 vs 2020

With unique_2020 as
(Select count(distinct p.product_code) as unique_products_2020
from dim_product p
join fact_sales_monthly s
on p.product_code = s.product_code
where fiscal_year = "2020"),

unique_2021 as
(Select count(distinct p.product_code) as unique_products_2021
from dim_product p
join fact_sales_monthly s
on p.product_code = s.product_code
where fiscal_year = "2021")

Select unique_products_2020, unique_products_2021,
Round(((unique_products_2021- unique_products_2020)/unique_products_2020)*100,1) as
percentage_chg
from unique_2020 cross join unique_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

```
#Unique product count for each segment

Select segment, count(distinct 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 cte1 as
(SELECT p.segment, count(distinct p.product_code) as product_count_2020
FROM dim_product p
join fact_sales_monthly s
on p.product_code = s.product_code
where fiscal_year = "2020"
group by p.segment
order by product_count_2020 desc ),

cte2 as
(SELECT p.segment, count(distinct p.product_code) as product_count_2021
FROM dim_product p
join fact_sales_monthly s
on p.product_code = s.product_code
where fiscal_year = "2021"
group by p.segment
order by product_count_2021 desc)

select cte1.segment, product_count_2020, product_count_2021, (product_count_2021 -
product_count_2020) as difference
FROM cte1
join cte2
on cte1.segment = cte2.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

```
SELECT p.product_code, p.product, m.manufacturing_cost
FROM dim_product p
join fact_manufacturing_cost m
on p.product_code = m.product_code
where manufacturing_cost = (select max(manufacturing_cost) from fact_manufacturing_cost) or
manufacturing_cost = (select min(manufacturing_cost) from fact_manufacturing_cost)
```

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 c.customer_code,c.customer,
Round(avg(pre_invoice_discount_pct)*100,2) as average_discount_percentage
FROM dim_customer c
join fact_pre_invoice_deductions pre
on c.customer_code = c.customer_code
where fiscal_year = "2021" and market = "India"
group by c.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 monthname(s.date) as Month, s.fiscal_year, SUM(sold_quantity*gross_price) as
total_sales
FROM dim_customer c
join fact_sales_monthly s
on c.customer_code = s.customer_code
join fact_gross_price g
on s.product_code = g.product_code and s.fiscal_year = g.fiscal_year
where customer = "Atliq Exclusive"
group by Month, s.fiscal_year
order by total_sales desc
```

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 cte1 as
(SELECT *, month(date) as mth
FROM fact_sales_monthly
where fiscal_year = "2020"),

cte2 as (Select
```

```
*, case
  when mth in (9,10,11) then "Q1"
  when mth in (12,1,2) then "Q2"
  when mth in (3,4,5) then "Q3"
  else "Q4"
  END as Quarter
from cte1)

select Quarter, Sum(sold_quantity) as total_sold_quantity
from cte2
group by quarter
order by total_sold_quantity desc
limit 2
```

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 cte1 as (SELECT Channel, Round(Sum(sold_quantity*gross_price)/1000000,2) as gross_sales_mln
FROM dim_customer c
join fact_sales_monthly s
on c.customer_code = s.customer_code
join fact_gross_price g
on s.product_code = g.product_code and s.fiscal_year = g.fiscal_year
where s.fiscal_year = "2021"
group by channel)

Select Channel, gross_sales_mln, gross_sales_mln*100/Sum(gross_sales_mln) Over() as percentage
from cte1
order by gross_sales_mln desc, 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 cte1 as
(SELECT division, p.product_code, product, sum(sold_quantity) as total_sold_quantity,
dense_rank() Over(partition by division order by sum(sold_quantity)desc) as rank_order
FROM dim_product p
join fact_sales_monthly s
on p.product_code = s.product_code
where s.fiscal_year = "2021"
group by division, p.product_code, product)

select *
from cte1
where rank_order<=3
```