AD-HOC Requests

Request 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"

order by market;
```

Request 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 products_count as (
        select g.fiscal_year, count(distinct(p.product_code)) as unique_products
        from dim_product p
        join fact_gross_price g
        on g.product_code=p.product_code
        group by g.fiscal_year)
select
   y20.unique_products as unique_products_2020,
   y21.unique_products as unique_products_2021,
   round(((y21.unique_products-y20.unique_products)*100/nullif(y20.unique_products, 0)), 2)
as perctge_chg
 from products_count y20 cross join products_count y21
where y20.fiscal_year=2020 and y21.fiscal_year=2021;
```

Request 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;
```

Request 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, s.fiscal_year, count(distinct(p.product_code)) as unique_product
 from dim_product p
join fact_sales_monthly s
on s.product_code=p.product_code
group by p.segment, s.fiscal_year)
select
        c1.segment,
   c1.unique_product as product_count_2020,
   c2.unique_product as product_count_2021,
   c2.unique_product-c1.unique_product as difference
 from cte1 c1
join cte1 c2 on c1.segment=c2.segment
and c1.fiscal_year=2020 and c2.fiscal_year=2021
order by difference desc limit 1;
```

Request 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 m.product_code=p.product_code
order by m.manufacturing_cost asc limit 1)
union all
(select
        p.product_code, p.product, m.manufacturing_cost
from dim_product p
join fact_manufacturing_cost m
on m.product_code=p.product_code
order by m.manufacturing_cost desc limit 1);
```

Request 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(p.pre_invoice_discount_pct)*100, 2) as average_discount_percentage
from dim_customer c
join fact_pre_invoice_deductions p
on c.customer_code=p.customer_code
```

```
where fiscal_year=2021 and market='India'
group by c.customer_code, c.customer
order by average_discount_percentage desc limit 5;
```

Request 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, Year(s.date) 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 and g.fiscal_year=s.fiscal_year
where c.customer='Atliq Exclusive'
group by Year(s.date), month(s.date), monthname(s.date)
order by Year(s.date), month(s.date);
```

Request 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
        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 cte1
order by total_sold_quantity desc;
```

Request 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
        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 channel)
select
        channel, gross_sales_mln,
        round((gross_sales_mln/sum(gross_sales_mln) over())*100, 2) as percentage
```

```
 from cte1
 order by gross_sales_mln desc;
```

Request 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, product, p.product_code, sum(sold_quantity) as total_sold_quantity
from dim_product p
join fact_sales_monthly s
on s.product_code=p.product_code
where s.fiscal_year=2021
group by division, product, product_code),

cte2 as(
select
        division, product_code, product, total_sold_quantity,
        rank() over(partition by division order by total_sold_quantity desc) as rank_order
from cte1)

select * from cte2
where rank_order<=3;
```