Ad-Hoc 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";
```

Ad-Hoc 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 and percentage_chg.

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

Ad-Hoc 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 and product_count.

```
select distinct segment, count(product_code) as product_count
from dim_product  group by segment
order by product_count desc;
```

Ad-Hoc 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,
```

```
   count(distinct(case when fiscal_year = 2020 then f.product_code END)) as product_count_2020,
   count(distinct(case when fiscal_year = 2021 then f.product_code END)) as product_count_2021
   from dim_product p
         join fact_sales_monthly f
   on p.product_code = f.product_code
   group by p.segment
) select segment, product_count_2020, product_count_2021,
(product_count_2021-product_count_2020) as difference
from cte1 order by difference desc;
```

Ad-Hoc Request 5

Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields, product_code, product and manufacturing_cost.

```
select distinct p.product_code,p.product,f.manufacturing_cost from dim_product p
join fact_manufacturing_cost f
on p.product_code=f.product_code where f.manufacturing_cost IN(
         select max(manufacturing_cost) as max_cost from fact_manufacturing_cost
   union
   select min(manufacturing_cost) as min_cost from fact_manufacturing_cost
) order by manufacturing_cost desc;
```

Ad-Hoc 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 and average_discount_percentage.

```
select c.customer_code,c.customer,round(avg(f.pre_invoice_discount_pct)*100,2) as avg_discount_pct
from dim_customer c join fact_pre_invoice_deductions f
on c.customer_code = f.customer_code where f.fiscal_year = 2021 and c.market = "India"
group by c.customer_code,c.customer order by avg_discount_pct desc limit 5;
```

Ad-Hoc 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 and Gross sales Amount.

```
select monthname(f.date) as Month, f.fiscal_year,
round(sum(f.sold_quantity*g.gross_price),2) as gross_price_total
from dim_customer c
join fact_sales_monthly f
on c.customer_code = f.customer_code
join fact_gross_price g
on f.product_code = g.product_code where c.customer = "Atliq Exclusive"
group by monthname(f.date),f.fiscal_year order by fiscal_year;
```

Ad-Hoc 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 and 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"
else "Q4"
end as Quarter,
sum(sold_quantity) as total_sales_qty
from fact_sales_monthly
where fiscal_year = 2020 group by Quarter
order by total_sales_qty desc;
```

Ad-Hoc 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 and gross_sales_mln percentage.

```
with cte1 as (select distinct c.channel,
round(sum((f.sold_quantity*g.gross_price)/1000000),2) as gross_sales_mln
from dim_customer c
join fact_sales_monthly f
on c.customer_code = f.customer_code
join fact_gross_price g
on g.product_code = f.product_code where f.fiscal_year = 2021
group by channel)
select channel, gross_sales_mln, round((gross_sales_mln)/(select sum(gross_sales_mln) from cte1)*100,2)
as gross_pct from cte1
group by channel
order by gross_sales_mln desc;
```

Ad-Hoc 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 and rank_order.

```
with x as (select distinct p.division, f.product_code, p.product, sum(f.sold_quantity) as total_sold_qty,
dense_rank() over(partition by division order by sum(f.sold_quantity) desc) as rank_
from dim_product p
join fact_sales_monthly f
on p.product_code = f.product_code
where f.fiscal_year = 2021 group by division, product_code, product)
select * from x where rank_ in (1,2,3) order by division, rank_;
```