AD-HOC-REQUEST-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'
GROUP BY market
ORDER BY market ;
```

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

percentage_chg

```
SELECT X.A AS unique_product_2020, Y.B AS unique_products_2021, ROUND((B-A)*100/A, 2) AS percentage_chg
FROM
    (
            (select COUNT(distinct(product_code)) as A from fact_sales_monthly
            where fiscal_year = 2020) X,
            (select COUNT(distinct(product_code)) as B from fact_sales_monthly
            where fiscal_year = 2021) Y
)
```

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
product_count

```
select segment , count(distinct(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 as A , Count(distinct(fs.product_code)) as B
        from dim_product p , fact_sales_monthly fs
    where p.product_code = fs.product_code
    group by fs.fiscal_year , p.segment
    having fs.fiscal_year = "2020"),

CTE2 AS
    (
        select p.segment as C , Count(distinct(fs.product_code)) as D
        from dim_product p , fact_sales_monthly fs
    where p.product_code = fs.product_code
```

```
    group by fs.fiscal_year , p.segment
    having fs.fiscal_year = "2021"
    )

SELECT CTE1.A AS segment, CTE1.B AS product_count_2020, CTE2.D AS
product_count_2021, (CTE2.D-CTE1.B) AS difference
FROM CTE1, CTE2
WHERE CTE1.A = CTE2.C ;
```

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

manufacturing_cost

```
SELECT F.product_code, P.product, F.manufacturing_cost
FROM fact_manufacturing_cost F JOIN dim_product P
ON F.product_code = P.product_code
WHERE manufacturing_cost
in (
                SELECT MAX(manufacturing_cost) FROM fact_manufacturing_cost
        UNION
        SELECT MIN(manufacturing_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

average_discount_percentage

```
with tbl1 as
(select customer_code as A , avg(pre_invoice_discount_pct) as B from fact_pre_invoice_deductions
WHERE fiscal_year = '2021'
GROUP BY customer_code),

        tbl2 as
(select customer_code as C , customer as D from dim_customer
where market = 'india')

SELECT tbl2.C AS customer_code, tbl2.D AS customer, ROUND (tbl1.B, 4) AS average_discount_percentage
FROM tbl1 JOIN tbl2
ON tbl1.A = tbl2.C
ORDER BY average_discount_percentage 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

Gross sales Amount

```
SELECT CONCAT(MONTHNAME(FS.date), ' (', YEAR(FS.date), ')') AS 'Month',
FS.fiscal_year,
                ROUND(SUM(G.gross_price*FS.sold_quantity),2) As
Gross_sales_amount
FROM fact_sales_monthly FS JOIN dim_customer C ON FS.customer_code =
C.customer_code
                                        JOIN fact_gross_price G ON
FS.product_code = G.product_code
WHERE C.customer = 'Atliq Exclusive'
GROUP BY  Month, FS.fiscal_year
ORDER BY FS.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

total_sold_quantity

```
SELECT
CASE
   WHEN date BETWEEN '2019-09-01' AND '2019-11-01' then 1
   WHEN date BETWEEN '2019-12-01' AND '2020-02-01' then 2
   WHEN date BETWEEN '2020-03-01' AND '2020-05-01' then 3
   WHEN date BETWEEN '2020-06-01' AND '2020-08-01' then 4
   END AS Quarters,
   SUM(sold_quantity) AS total_sold_quantity
```

```
FROM fact_sales_monthly
WHERE fiscal_year = 2020
GROUP BY Quarters
ORDER BY total_sold_quantity 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
gross_sales_mln
percentage

```
WITH temp_table AS (
                SELECT c.channel,sum(s.sold_quantity * g.gross_price) AS total_sales
FROM
fact_sales_monthly s
JOIN fact_gross_price g ON s.product_code = g.product_code
JOIN dim_customer c ON s.customer_code = c.customer_code
WHERE s.fiscal_year= 2021
GROUP BY c.channel
ORDER BY total_sales DESC
)
SELECT
  channel,
  round(total_sales/1000000,2) AS gross_sales_in_millions,
  round(total_sales/(sum(total_sales) OVER())*100,2) AS percentage
FROM temp_table;
```

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

rank_order

```
WITH Output1 AS
(
SELECT P.division, FS.product_code, P.product, SUM(FS.sold_quantity) AS Total_sold_quantity
FROM dim_product P JOIN fact_sales_monthly FS
ON P.product_code = FS.product_code
WHERE FS.fiscal_year = 2021
GROUP BY  FS.product_code, division, P.product
),
Output2 AS
(
SELECT division, product_code, product, Total_sold_quantity,
       RANK() OVER(PARTITION BY division ORDER BY Total_sold_quantity DESC) AS 'Rank_Order'
FROM Output1
)
 SELECT Output1.division, Output1.product_code, Output1.product, Output2.Total_sold_quantity, Output2.Rank_Order
 FROM Output1 JOIN Output2
 ON Output1.product_code = Output2.product_code
```

```
WHERE Output2.Rank_Order IN (1,2,3)
```