

/*Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC region.*/

```
SELECT distinct(market) FROM gdb023.dim_customer  
  
where region = 'APAC' and customer = 'Atliq Exclusive'  
  
order by market;
```

/*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 cte as(  
  
SELECT count(distinct s.product_code) unique_products_2020 FROM gdb023.fact_sales_monthly s  
where fiscal_year = 2020), cte2 as(  
  
SELECT count(distinct s.product_code) unique_products_2021 FROM gdb023.fact_sales_monthly s  
where fiscal_year = 2021)  
  
select unique_products_2020,unique_products_2021,  
  
((unique_products_2021 - unique_products_2020)/unique_products_2020) * 100 as percentage_chg  
  
from cte, cte2;
```

/*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) product_count  
  
from dim_product  
  
group by segment  
  
order by product_count desc;
```

/*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 cte as(

SELECT p.segment, count(distinct s.product_code) product_count_2020 FROM fact_sales_monthly s

inner join dim_product p

on s.product_code = p.product_code

where fiscal_year = 2020

group by segment),

cte2 as(

SELECT p.segment, count(distinct s.product_code) product_count_2021 FROM fact_sales_monthly s

inner join dim_product p

on s.product_code = p.product_code

where fiscal_year = 2021

group by segment)

select cte.segment,cte.product_count_2020,cte2.product_count_2021, (product_count_2021-

product_count_2020) difference from cte inner join cte2 on cte.segment =cte2.segment order by

difference desc
```

/*Get the products that have the highest and lowest manufacturing costs.

The final output should contain these fields, product_code product manufacturing_cost*/

```
with cte as(

SELECT product_code,manufacturing_cost highest FROM fact_manufacturing_cost

where manufacturing_cost in (select max(manufacturing_cost) from fact_manufacturing_cost)

),

cte2 as(
```

```

SELECT product_code,min(manufacturing_cost) lowest FROM fact_manufacturing_cost
where manufacturing_cost in (select min(manufacturing_cost) from fact_manufacturing_cost)
)
, cte3 as(
select product_code, highest as manufacturing_cost from cte
union
select product_code, lowest as manufacturing_cost from cte2)

select cte3.product_code, p.product, manufacturing_cost from cte3 inner join
dim_product p on cte3.product_code= p.product_code;

```

/*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 cte as(
select customer_code, pre_invoice_discount_pct
from fact_pre_invoice_deductions
where fiscal_year = 2021), cte2 as(
select * from dim_customer
where market = 'India')

select cte.customer_code,cte2.customer,round(avg(cte.pre_invoice_discount_pct)*100,2)
average_discount_percentage from cte inner join cte2 on cte.customer_code = cte2.customer_code
group by cte.customer_code,cte2.customer order by average_discount_percentage desc
limit 5;

```

/*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 */

```
with cte as(
select CONCAT(MONTHNAME(s.date), ' ', YEAR(s.date), ')') AS 'Month',
s.fiscal_year, s.customer_code,(s.sold_quantity*g.gross_price) gross_sales_amount
from fact_sales_monthly s inner join fact_gross_price g on
s.product_code = g.product_code)
select cte.month, cte.fiscal_year, round(sum(gross_sales_amount),2) gross_sales_amount from
dim_customer c inner join cte on c.customer_code = cte.customer_code
where c.customer= 'Atliq Exclusive'
group by cte.month, cte.fiscal_year;
```

/*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 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 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
```

/*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 customer_code, g.product_code, (sold_quantity*gross_price) gross_sales
FROM fact_gross_price g
inner join fact_sales_monthly s
on g.product_code = s.product_code
where s.fiscal_year = 2021), cte2 as(
select c.channel, sum(cte.gross_sales) gross_sales_mln
from cte inner join dim_customer c
on cte.customer_code = c.customer_code
group by c.channel)
select channel, format((gross_sales_mln/1000000.0),'0,,.00M')gross_sales_mln,
round((gross_sales_mln/sum(gross_sales_mln)over())*100,2) percentage
from cte2
```

/*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*/

```
with cte as(
select product_code,p.product,sum(sold_quantity) qty_sold from fact_sales_monthly s inner join
dim_product p using(product_code)
where fiscal_year=2021
group by product_code,p.product), cte2 as(
```

```
select p.division, cte.product_code, cte.product,cte.qty_sold,dense_rank()over(partition by p.division  
order by qty_sold desc) _rank
```

```
from cte inner join dim_product p
```

```
on cte.product_code = p.product_code)
```

```
select division, product_code, product, qty_sold, _rank
```

```
from cte2 where _rank<=3;
```