

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 fields: unique_products_2020, unique_products_2021, percentage_chg

```
WITH X AS
(SELECT COUNT(DISTINCT product_code) AS unique_products_2020
FROM fact_sales_monthly WHERE fiscal_year= 2020),
Y AS
(SELECT COUNT(DISTINCT product_code) AS unique_products_2021
FROM fact_sales_monthly WHERE fiscal_year= 2021)
SELECT
X.unique_products_2020,
Y.unique_products_2021,
round(((Y.unique_products_2021-X.unique_products_2020)/X.unique_products_2020)*100,2) AS
Percentage_chg
FROM X,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 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 fields: segment, product_count_2020, product_count_2021, difference

```

with x as ( select p.segment,
count(distinct s.product_code) as product_count_2020 from dim_product p
join fact_sales_monthly s on p.product_code = s.product_code where s.fiscal_year=2020 group by
p.segment) ,
y as ( select p.segment,
count(distinct s.product_code) as product_count_2021 from dim_product p
join fact_sales_monthly s on p.product_code = s.product_code where s.fiscal_year=2021 group by
p.segment)
select x.segment , product_count_2020 ,product_count_2021,abs(x.product_count_2020-
y.product_count_2021) as difference
from x join y on x.segment=y.segment order by difference desc

```

Ad-hoc Request - 5

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

The final output fields: product_code, product, manufacturing_cost

```

select m.product_code, p.product, m.manufacturing_cost
from fact_manufacturing_cost m join dim_product p
using (product_code)
where m.manufacturing_cost =
(select max(manufacturing_cost)

```

```
from fact_manufacturing_cost)
or m.manufacturing_cost = (select min(manufacturing_cost)
from fact_manufacturing_cost)
order by m.manufacturing_cost desc
```

Ad-hoc Request - 6

Generate report individual product sales for cromia india customer by their gross_total_price for
fiscal_year = 2021 and fiscal_quarter = Q4 ?

The final output fields:

date,product_code,product_name,variant,sold_quantity,gross_price,gross_total_price

```
select
s.date,s.product_code,
p.product, p.variant, s.sold_quantity,
g.gross_price,
ROUND(g.gross_price*s.sold_quantity,2) as gross_total_price
from fact_sales_monthly s
JOIN dim_product p
ON s.product_code = p.product_code
JOIN fact_gross_price g
ON s.product_code = g.product_code AND
    g.fiscal_year = get_fiscal_year(s.date)
where customer_code = 90002002
AND get_fiscal_year(date) = 2021
AND get_fiscal_quarter(date) = "Q4"
order by date asc limit 1000000;
```

Ad-hoc Request - 7

Generate a yearly sales report for Cromia India customer.

The final output fields: Fiscal Year, Total Gross Sales amount In that year from Cromia

```

SELECT
get_fiscal_year(date) as fiscal_year,
ROUND(SUM(g.gross_price * s.sold_quantity),2) as yearly_sales
FROM fact_sales_monthly s
JOIN fact_gross_price g
ON g.product_code = s.product_code
AND g.fiscal_year = get_fiscal_year(s.date)
where customer_code = 90002002
group by get_fiscal_year(date)
order by fiscal_year;

```

Ad-hoc Request - 8

Determine the market badge on the following logic, if total_sold_quantity > 5 million that market considered "Gold" else it is "Silver" for India market in the fiscal_year of 2021?

The final output field: market badge

```

With X as (
select
SUM(sold_quantity) as qty
FROM fact_sales_monthly s
JOIN dim_customer c
ON s.customer_code = c.customer_code
WHERE
get_fiscal_year(s.date) = 2021
AND
c.market = "india"
GROUP BY c.market)

select
CASE
    when qty > 5000000 THEN "Gold"

```

```
        else "Silver"

END as out_badge

from X;
```

Ad-hoc Request - 9

Get the top 3 products in each division by their total sold quantity in the fiscal year of 2021?

The final output contains following fields: division, product_name, total sold quantity

```
# top N products by division

with cte1 as (Select

    p.division, p.product, SUM(sold_quantity) as total_qty

from fact_sales_monthly s

JOIN dim_product p ON s.product_code = p.product_code

where fiscal_year = 2021

group by p.product,p.division),

    cte2 as (select

        *,

        dense_rank() over(partition by division order by total_qty desc) as drnk

from cte1)

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

Ad-hoc Request - 10

Get the top 3 markets in each region by their gross_sales in the fiscal year of 2021?

The final output contains following fields: market, region, gross_sales_mln

```
with cte1 as (select

    c.market,

    c.region,

    ROUND(SUM(gross_total_price)/1000000,2) as gross_sales_mln

from gross_sales s
```

```

JOIN dim_customer c
ON c.customer_code = s.customer_code
where s.fiscal_year = 2021
group by c.region,c.market
order by gross_sales_mln desc),
      cte2 as (select
        *,
        dense_rank() over(partition by region order by gross_sales_mln desc) as drnk
from cte1)

select * from cte2 where drnk<=2

```

Ad-hoc Request - 11

Get top 5 market, customer and market by their net_sales in the fiscal_year of 2021?

The final output fields: market/customer/product, net_sales_mln

```

SELECT
      market,
      ROUND(SUM(net_sales)/1000000,2) as net_sales_mln
FROM gdb0041.net_sales
WHERE fiscal_year = 2021
group by market
order by net_sales_mln desc
limit 5;

```

```

SELECT
      c.customer,
      ROUND(SUM(net_sales)/1000000,2) as net_sales_mln
FROM gdb0041.net_sales n
JOIN dim_customer c
ON c.customer_code = n.customer_code

```

```
WHERE fiscal_year = 2021  
  
group by c.customer  
  
order by net_sales_mln desc  
  
limit 5;
```

```
SELECT  
  
    product,  
  
    ROUND(SUM(net_sales)/1000000,2) as net_sales_mln  
  
FROM gdb0041.net_sales  
  
WHERE fiscal_year = 2021  
  
group by product  
  
order by net_sales_mln desc  
  
limit 5;
```

Ad-hoc Request - 12

Get the region wise market share for all customers in the fiscal year of 2021?

The final output fields: customer,region,net_sales_mln, Market share in %

```
with cte1 as (  
  
SELECT  
  
    c.customer,  
  
    c.region,  
  
    ROUND(SUM(net_sales)/1000000,2) as net_sales_mln  
  
FROM gdb0041.net_sales n  
  
JOIN dim_customer c  
  
    ON c.customer_code = n.customer_code  
  
WHERE n.fiscal_year = 2021  
  
group by c.customer, c.region)
```

```
select  
  
    *,
```

```

        net_sales_mln*100/SUM(net_sales_mln) over(partition by region) as pct_share_region
from cte1
order by region, net_sales_mln desc;

```

Ad-hoc Request - 13

Get the global level net sales for all customers in the fiscal year of 2021?

The final output fields: customer, net_sales_mln, net sales %

```

with cte1 as (
SELECT
        c.customer,
        ROUND(SUM(net_sales)/1000000,2) as net_sales_mln
FROM gdb0041.net_sales n
JOIN dim_customer c
        ON c.customer_code = n.customer_code
WHERE n.fiscal_year = 2021
group by c.customer
order by net_sales_mln desc)

```

```

select
        *,
        net_sales_mln*100/SUM(net_sales_mln) over() as pct
from cte1
order by net_sales_mln desc;

```

Ad-hoc Request - 14

Get the forecast accuracy for all customers in the fiscal_year of 2021?

The final output fields: customer_code, customer,market, total_sold_qty, total_forecast_qty, net_err, net_err_pct, abs_err, abs_err_pct, forecast_accuracy


```

with forecast_err_table as
(select
    s.customer_code,
    c.customer,
    c.market,
    SUM(sold_quantity) as total_sold_qty,
    SUM(forecast_quantity) as total_forecast_qty,
    SUM(forecast_quantity-sold_quantity) as net_err,
    ROUND(SUM(forecast_quantity-sold_quantity)*100/SUM(forecast_quantity),1) as net_err_pct,
    SUM(abs(forecast_quantity-sold_quantity)) as abs_err,
    ROUND(SUM(abs(forecast_quantity-sold_quantity))*100/SUM(forecast_quantity),2) as
abs_err_pct
from fact_act_est s
join dim_customer c
ON s.customer_code = c.customer_code
where fiscal_year = 2021
group by customer_code)

select
    *,
    if(abs_err_pct > 100 , 0, 100.0 - abs_err_pct) as forecast_accuracy
from forecast_err_table
order by forecast_accuracy desc;

```