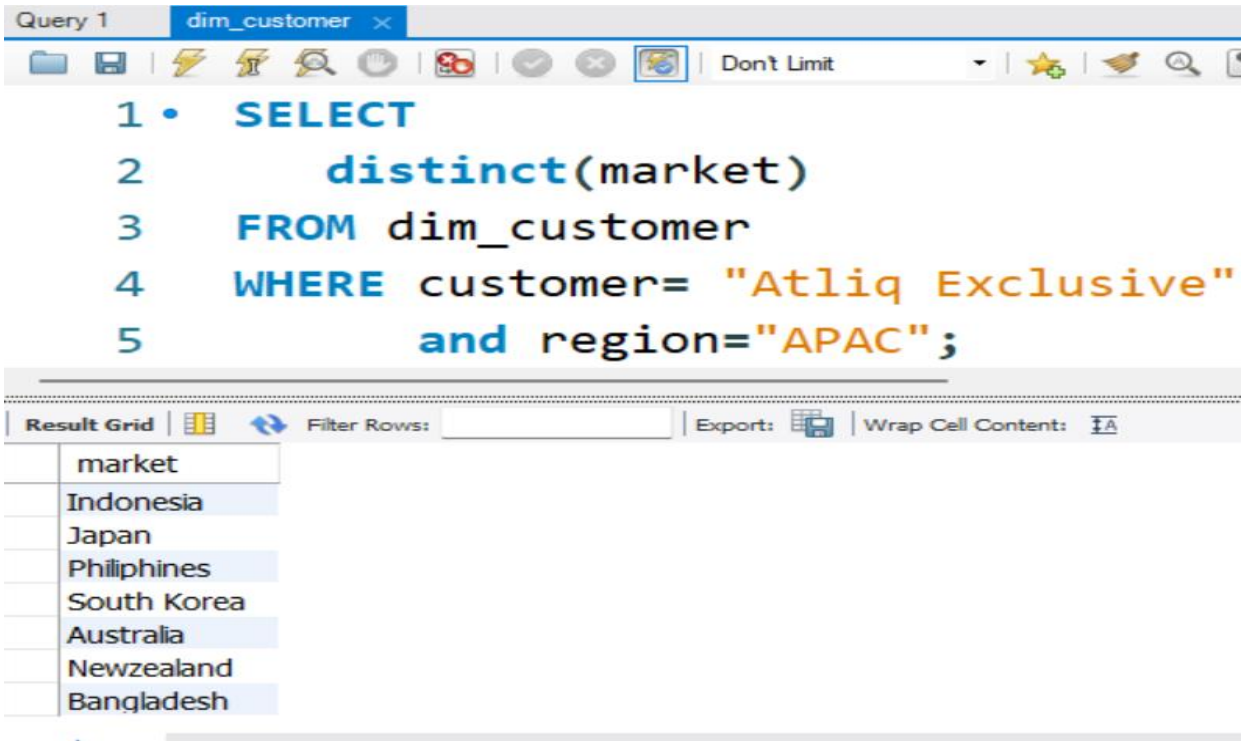
Consumer good Insights

Requests:

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



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

```sql
WITH cte1 as
(SELECT
    count(distinct product_code) as unique_product_2020
FROM fact_gross_price
     where fiscal_year=2020),

 cte2 as
(SELECT
    count(distinct product_code) as unique_product_2021
FROM fact_gross_price
     where fiscal_year=2021)

SELECT unique_product_2020,
       unique_product_2021,
 round(((unique_product_2021-unique_product_2020)/unique_product_2020) *100,2) as percentage_chg
 FROM cte1,cte2;
```

unique_product_2020	unique_product_2021	percentage_chg
245	334	36.33

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

```sql
SELECT segment,
       count(distinct product_code) as product_count
FROM dim_product
GROUP BY segment
ORDER BY product_count desc;
```

segment	product_count
Notebook	129
Accessories	116
Peripherals	84
Desktop	32
Storage	27
Networking	9

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
     segment,
     count(distinct p.product_code) as product_count_2020
FROM dim_product p
JOIN fact_gross_price g
      on p.product_code=g.product_code
      where fiscal_year=2020
GROUP BY segment),

cte2 as
(SELECT
      segment,
      count(distinct p.product_code) as product_count_2021
FROM dim_product p
JOIN fact_gross_price g
    on p.product_code=g.product_code
    where fiscal_year=2021
GROUP BY segment)

SELECT
   cte1.segment, product_count_2020,
   product_count_2021,
   (product_count_2021-product_count_2020) as Difference
FROM cte1
JOIN cte2
     on cte1.segment=cte2.segment
ORDER BY Difference desc;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

segment	product_count_2020	product_count_2021	Difference
Accessories	69	103	34
Notebook	92	108	16
Peripherals	59	75	16
Desktop	7	22	15
Storage	12	17	5
Networking	6	9	3

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

dim_customer | fact_gross_price | dim_product | fact_gross_price | dim_product

Don't Limit

```
1  SELECT
2      p.product,
3      p.product_code,
4      m.manufacturing_cost AS max_min_manufacturing_cost
5  FROM dim_product p
6  JOIN fact_manufacturing_cost m
7      ON m.product_code = p.product_code
8  WHERE  m.manufacturing_cost = (SELECT MAX(manufacturing_cost)
9                                 FROM fact_manufacturing_cost)
10 UNION
11 SELECT
12     p.product,
13     p.product_code,
14     m.manufacturing_cost AS max_min_manufacturing_cost
15 FROM dim_product p
16 JOIN fact_manufacturing_cost m ON m.product_code = p.product_code
17 WHERE m.manufacturing_cost = (SELECT MIN(manufacturing_cost)
18                                FROM fact_manufacturing_cost);
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

product	product_code	max_min_manufacturing_cost
AQ HOME Allin1 Gen 2	A6121110208	263.4207
AQ Master wired x1 Ms	A2118150101	0.8654

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

```
Don't Limit

1   SELECT
2       p.customer_code,
3       c.customer,
4   round(avg(p.pre_invoice_discount_pct), 3) as avg_discount_pct
5   FROM dim_customer c
6   JOIN fact_pre_invoice_deductions p
7        on p.customer_code=c.customer_code
8   WHERE p.fiscal_year=2021
9         and c.market="india"
10  GROUP BY p.customer_code,c.customer
11  ORDER BY avg_discount_pct desc
12          limit 5;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

customer_code	customer	avg_discount_pct
90002009	Flipkart	0.308
90002006	Viveks	0.304
90002002	Croma	0.303
90002003	Ezone	0.303
90002016	Amazon	0.293

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

dim_customer | fact_gross_price | dim_product | fact_gross_price | dim_product | fact_manufacturing_cost

Don't Limit

```
1  SELECT
2      s.date,
3      monthname(s.date) as month_name,
4      year(s.date) as year,
5  round(sum(s.sold_quantity*g.gross_price), 2) as gross_sales_amt
6  FROM fact_sales_monthly s
7  JOIN dim_customer c
8      on c.customer_code=s.customer_code
9  JOIN fact_gross_price g
10      on g.product_code=s.product_code
11 WHERE customer="Atliq Exclusive"
12 GROUP BY month_name, year, date
```

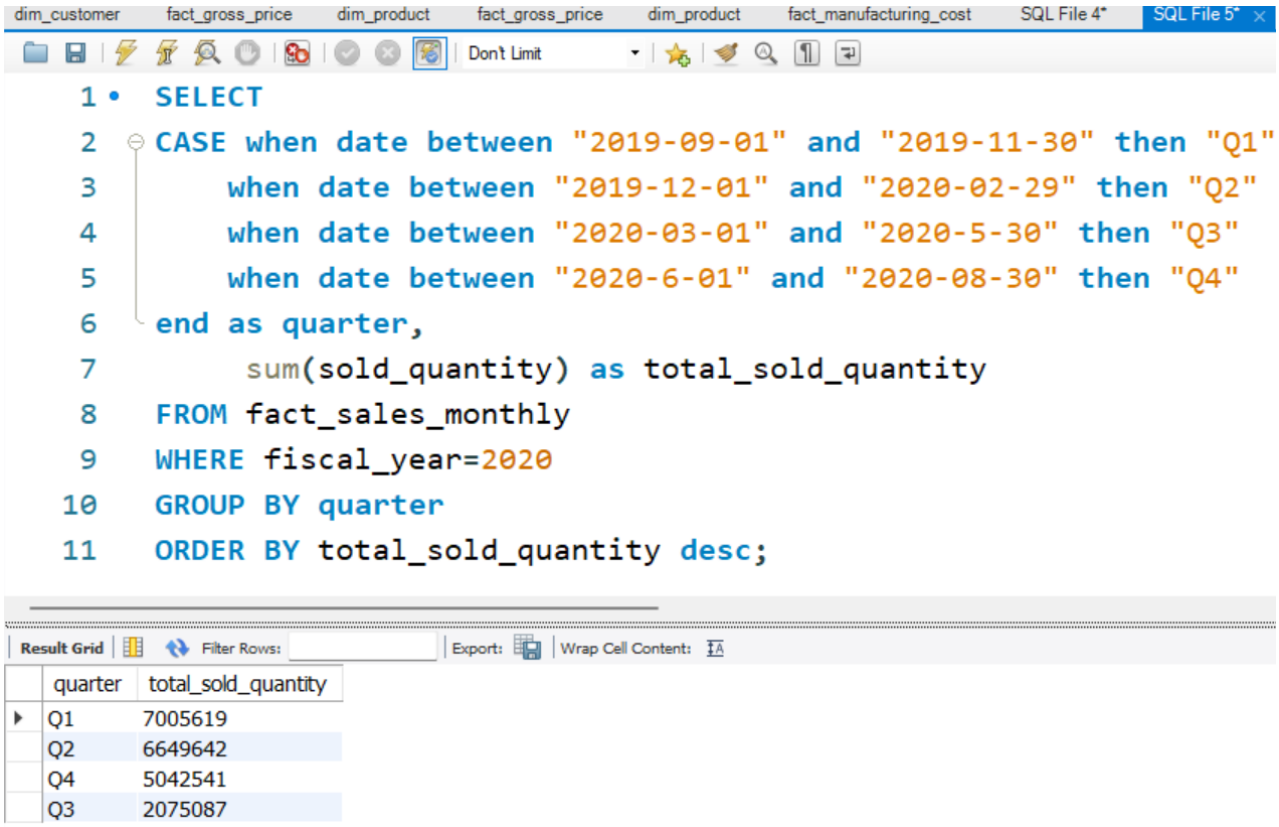
Result Grid | Filter Rows: | Export: | Wrap Cell Content:

date	month_name	year	gross_sales_amt
2017-12-01	December	2017	2390015.56
2017-11-01	November	2017	3766114.43
2017-10-01	October	2017	2462780.55
2017-09-01	September	2017	2347703.88
2018-04-01	April	2018	1392024.51
2018-08-01	August	2018	1498728.56

Result 2

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



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

dim_customer fact_gross_price dim_product fact_gross_price dim_product fact_manu

Don't Limit

```sql
WITH channel_sales AS (
SELECT
   c.channel,
   SUM(s.sold_quantity * g.gross_price) AS total_sales
FROM fact_sales_monthly s
JOIN dim_customer c
    ON c.customer_code = s.customer_code
JOIN fact_gross_price g
   ON g.product_code = s.product_code
WHERE s.fiscal_year = 2021
GROUP BY c.channel)

SELECT
      channel,
      concat(ROUND(total_sales / 1000000, 2), " ", "M") AS gross_sales_mln,
      ROUND((total_sales / SUM(total_sales) OVER ()) * 100, 2) AS percentage
FROM channel_sales
ORDER BY gross_sales_mln ASC;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

channel	gross_sales_mln	percentage
Retailer	3708.46 M	73.21
Distributor	572.86 M	11.31
Direct	784.14 M	15.48

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

fact_gross_price dim_product fact_gross_price dim_product fact_manufacturing_cost SQL

Don't Limit

```sql
with CTE1 as (
select
   p.division,
   p.product_code,
   p.product,
   sum(s.sold_quantity) as total_sold_quantity,
   RANK() OVER (PARTITION BY division ORDER BY SUM(sold_quantity) DESC) AS rank_order
from dim_product p
join fact_sales_monthly s
     on s.product_code=p.product_code
where s.fiscal_year=2021
group by p.division, p.product_code,p.product)

SELECT
      *
FROM CTE1
WHERE rank_order <= 3
ORDER BY division, rank_order;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

division	product_code	product	total_sold_quantity	rank_order
N & S	A6720160103	AQ Pen Drive 2 IN 1	701373	1
N & S	A6818160202	AQ Pen Drive DRC	688003	2
N & S	A6819160203	AQ Pen Drive DRC	676245	3
P & A	A2319150302	AQ Gamers Ms	428498	1