Consumer Goods Ad_Hoc Insights

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";
```

market
India
Indonesia
Japan
Philiphines
South Korea
Australia
Newzealand
Bangladesh

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 CASE
                                    WHEN fiscal_year = 2020 THEN product_code END) AS unique_products_2020,
        COUNT(DISTINCT CASE
                                    WHEN fiscal_year = 2021 THEN product_code END) ASunique_product_2021
FROM fact_sales_monthly)
SELECT *, ROUND((unique_product_2021-unique_products_2020)*100/unique_products_2020,1) AS percentage_chg
FROM cte;
```

unique_products_2020	unique_product_2021	percentage_chg
245	334	36.3

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;
```

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

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 CASE
                                    WHEN s.fiscal_year = 2020 THEN s.product_code END) AS products_count_2020,
                   COUNT(DISTINCT CASE
                                    WHEN s.fiscal_year = 2021 THEN s.product_code END) AS product_count_2021
 FROM fact_sales_monthly s
 JOIN dim_product p
 ON p.product_code = s.product_code
 GROUP BY p.segment)
 SELECT *, product_count_2021-products_count_2020 AS differenceFROM cteORDER BY difference DESC;
```

segment	products_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

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

```
SELECT m.product_code, product, ROUND(manufacturing_cost,1) AS manufacturing_cost
FROM dim_product p
JOIN fact_manufacturing_cost m
ON m.product_code = p.product_code
WHERE manufacturing_cost = (SELECT MAX(manufacturing_cost) FROM fact_manufacturing_cost) OR
      manufacturing_cost = (SELECT MIN(manufacturing_cost) FROM fact_manufacturing_cost)
ORDER BY manufacturing_cost DESC;
```

product_code	product	manufacturing_cost
A6120110206	AQ HOME Allin1 Gen 2	240.5
A2118150101	AQ Master wired x1 Ms	0.9

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.

```
SELECT pre.customer_code, c.customer, ROUND(AVG(pre.pre_invoice_discount_pct),2) AS average_discount_percentage
FROM dim_customer c
JOIN fact_pre_invoice_deductions pre
ON pre.customer_code = c.customer_code
WHERE pre.fiscal_year = 2021 AND c.market = "India“
GROUP BY c.customer, pre.customer_code
ORDER BY average_discount_percentage DESC
LIMIT 5;
```

customer_code	customer	average_discount_percentage
90002009	Flipkart	0.31
90002006	Viveks	0.30
90002002	Croma	0.30
90002003	Ezone	0.30
90002016	Amazon	0.29

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 s.date AS month, s.fiscal_year AS year, ROUND(SUM(s.sold_quantity*g.gross_price),1) AS gross_sales_amount
FROM dim_customer c
JOIN fact_sales_monthly s
ON s.customer_code = c.customer_code
JOIN fact_gross_price g
ON g.product_code = s.product_code AND g.fiscal_year = s.fiscal_year
WHERE c.customer = "Atliq Exclusive“
GROUP BY s.date, s.fiscal_year
ORDER BY s.date ASC;
```

month	year	gross_sales_amount
2019-09-01	2020	4496259.7
2019-10-01	2020	5135902.3
2019-11-01	2020	7522892.6
2019-12-01	2020	4830404.7
2020-01-01	2020	4740600.2
2020-02-01	2020	3996227.8
2020-03-01	2020	378771.0
2020-04-01	2020	395035.4
2020-05-01	2020	783813.4
2020-06-01	2020	1695216.6
2020-07-01	2020	2551159.2
2020-08-01	2020	2786648.3

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"
             ELSE "Q4"
        END AS quarter,
        SUM(sold_quantity) AS total_sold_quantity
FROM fact_sales_monthly s
WHERE s.fiscal_year = 2020
GROUP BY quarter
ORDER BY total_sold_quantity DESC;
```

quarter	total_sold_quantity
Q1	7005619
Q2	6649642
Q4	5042541
Q3	2075087

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 c.channel,s.fiscal_year, ROUND(SUM(s.sold_quantity*g.gross_price)/1000000, 1) AS gross_sales_mln
FROM dim_customer c
JOIN fact_sales_monthly s
ON s.customer_code = c.customer_code
JOIN fact_gross_price g
ON g.product_code = s.product_code AND g.fiscal_year = s.fiscal_year
GROUP BY c.channel, s.fiscal_year)
SELECT channel, gross_sales_mln, ROUND(((gross_sales_mln)/(SELECT SUM(gross_sales_mln)
FROM cte WHERE fiscal_year = 2021))*100,1) AS pct
FROM cteWHERE fiscal_year = 2021
ORDER BY gross_sales_mln DESC;
```

channel	gross_sales_mln	pct
Retailer	1219.1	73.2
Direct	257.5	15.5
Distributor	188.0	11.3

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 cte AS (
SELECT p.division, p.product_code, p.product, SUM(s.sold_quantity) AS total_sold_quantity
FROM dim_product p
JOIN fact_sales_monthly s
ON s.product_code = p.product_code
WHERE fiscal_year = 2021
GROUP BY p.division, p.product_code, p.product),
cte1 AS (
SELECT *, RANK() OVER (PARTITION BY division ORDER BY total_sold_quantity DESC) AS rnk
FROM cte)SELECT * FROM cte1WHERE rnk < 4;
```

division	product_code	product	total_sold_quantity	rnk
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
P & A	A2520150501	AQ Maxima Ms	419865	2
P & A	A2520150504	AQ Maxima Ms	419471	3
PC	A4218110202	AQ Digit	17434	1
PC	A4319110306	AQ Velocity	17280	2
PC	A4218110208	AQ Digit	17275	3