



# Consumer Goods Ad\_Hoc Insights



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

**Output:**

```
SELECT
    DISTINCT market
FROM
    dim_customer
WHERE
    customer = "Atliq Exclusive"
AND region = "APAC";
```

	market
0	India
1	Indonesia
2	Japan
3	Philippines
4	South Korea
5	Australia
6	Newzealand
7	Bangladesh

# VISUAL REPRESENTATION



## INSIGHTS

**Atliq Exclusive** operates in **8 APAC markets**, including India, Indonesia, Japan, and Australia. This shows its strong and diverse presence across the region.

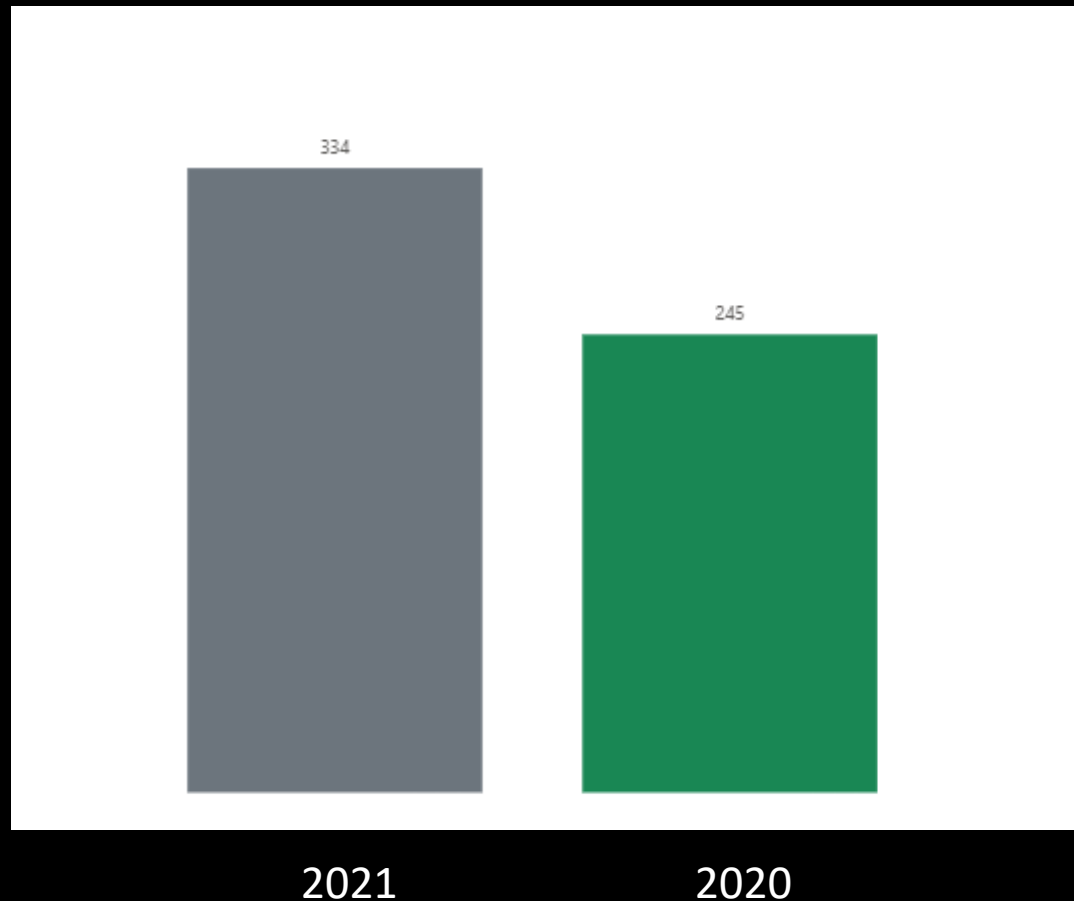
Q 2. What is the percentage of unique product increase in 2021 vs 2020? The final output contains these fields – unique\_products\_2020, unique\_products\_2021, percentage\_chg.

```
WITH product_20 AS (  
    SELECT COUNT(DISTINCT product_code) AS  
    unique_products_2020  
    FROM fact_sales_monthly  
    WHERE fiscal_year = 2020  
),  
product_21 AS (  
    SELECT COUNT(DISTINCT product_code) AS  
    unique_products_2021  
    FROM fact_sales_monthly  
    WHERE fiscal_year = 2021  
)  
SELECT  
    unique_products_2020,  
    unique_products_2021,  
    ROUND(  
        ((unique_products_2021 - unique_products_2020) /  
        unique_products_2020) * 100,  
        2  
    ) AS percentage_chg  
FROM product_20, product_21;
```

Output:

	unique_products_2020	unique_products_2021	percentage_chg
0	245	334	36.33

## VISUAL REPRESENTATION



## INSIGHTS

**Unique products increased from 245 in 2020 to 334 in 2021 — a 36.33% rise.**

This shows the company added more products, possibly to meet customer needs or expand its business.

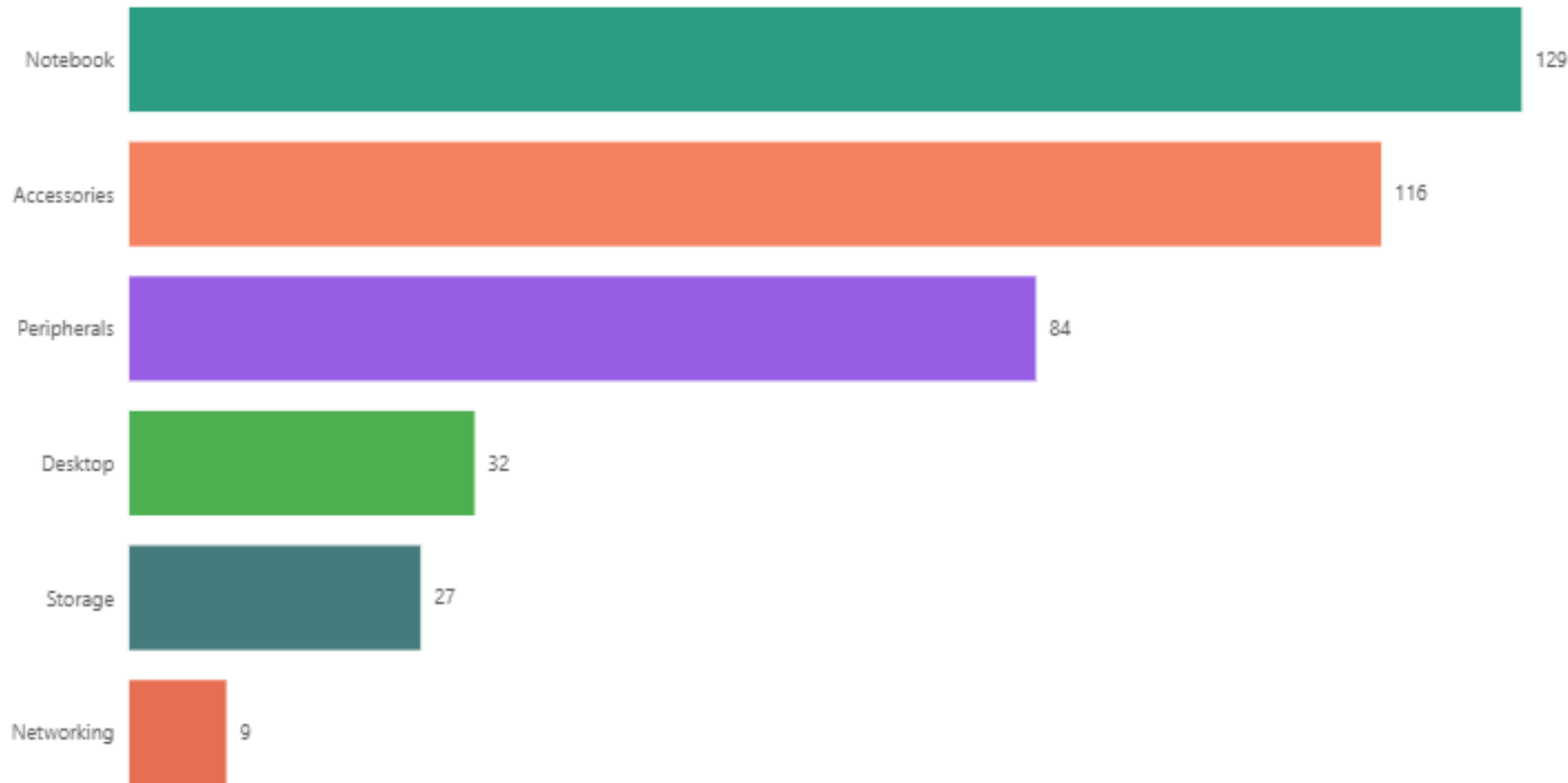
Q 3. Provide a report with all the unique product counts for each segment and sort them in descending order of product counts. The final output contains 2 fields - segment product\_count.

### Output:

```
SELECT
    segment,
    COUNT(DISTINCT product_code) AS
product_count
FROM
    dim_product
GROUP BY
    segment
ORDER BY
    product_count DESC;
```

	segment	product_count
0	Notebook	129
1	Accessories	116
2	Peripherals	84
3	Desktop	32
4	Storage	27
5	Networking	9

## VISUAL REPRESENTATION



## INSIGHTS

Most products fall under **Notebook (129)** and **Accessories (116)**, making them the top segments. **Peripherals (84)** hold a mid-level position, while **Desktop (32)**, **Storage (27)**, and especially **Networking (9)** have much fewer products.

This highlights an opportunity to **expand** product offerings in the lower-count segments to improve balance and growth potential.

Q 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 product_20 AS (  
  SELECT  
    p.segment,  
    COUNT(DISTINCT s.product_code) AS product_count_2020  
  FROM  
    fact_sales_monthly s  
  JOIN dim_product p ON s.product_code = p.product_code  
  WHERE  
    s.fiscal_year = 2020  
  GROUP BY  
    p.segment  
) ,  
product_21 AS (  
  SELECT  
    p.segment,  
    COUNT(DISTINCT s.product_code) AS product_count_2021  
  FROM  
    fact_sales_monthly s  
  JOIN dim_product p ON s.product_code = p.product_code  
  WHERE  
    s.fiscal_year = 2021  
  GROUP BY  
    p.segment  
)  
SELECT  
  p20.segment,  
  product_count_2020,  
  product_count_2021,  
  product_count_2021 - product_count_2020 AS difference  
FROM  
  product_20 p20  
JOIN product_21 p21 ON p20.segment = p21.segment  
ORDER BY  
  difference DESC;
```

Output:

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



## VISUAL REPRESENTATION

segment	Product Count 2020	Product Count 2021	difference
Networking	6	9	3 ↑
Desktop	7	22	15 ↑
Storage	12	17	5 ↑
Peripherals	59	75	16 ↑
Accessories	69	103	34 ↑
Notebook	92	108	16 ↑

## INSIGHTS

Accessories had the highest growth, with 34 more products added in 2021 compared to 2020. Desktop products also grew by 21.4%. On the other hand, Storage and Networking saw the least increase in new products during this time.

Q 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 AS manufacturing_cost
FROM
    fact_manufacturing_cost f
JOIN dim_product p ON f.product_code =
p.product_code
WHERE
    f.manufacturing_cost = (
        SELECT
            MIN(manufacturing_cost)
        FROM
            fact_manufacturing_cost
    )
UNION ALL
SELECT
    f.product_code,
    p.product,
    f.manufacturing_cost AS manufacturing_cost
FROM
    fact_manufacturing_cost f
JOIN dim_product p ON f.product_code =
p.product_code
WHERE
    f.manufacturing_cost IN(
        SELECT
            MAX(manufacturing_cost)
        FROM
            fact_manufacturing_cost
    );

```

Output:

	product_code	product	manufacturing_cost
0	A2118150101	AQ Master wired x1 Ms	0.8920
1	A6120110206	AQ HOME Allin1 Gen 2	240.5364

## VISUAL REPRESENTATION

240.54



A6120110206  
AQ HOME Allin1 Gen 2  
Personal Desktop

0.89



A2118150101  
AQ Master Wired x1 Ms  
Mouse

## INSIGHTS

AQ HOME Allin 1 Gen 2 has the highest manufacturing cost (240.53), showing it's a premium product. The big cost gap suggests the company targets both budget and premium buyers.

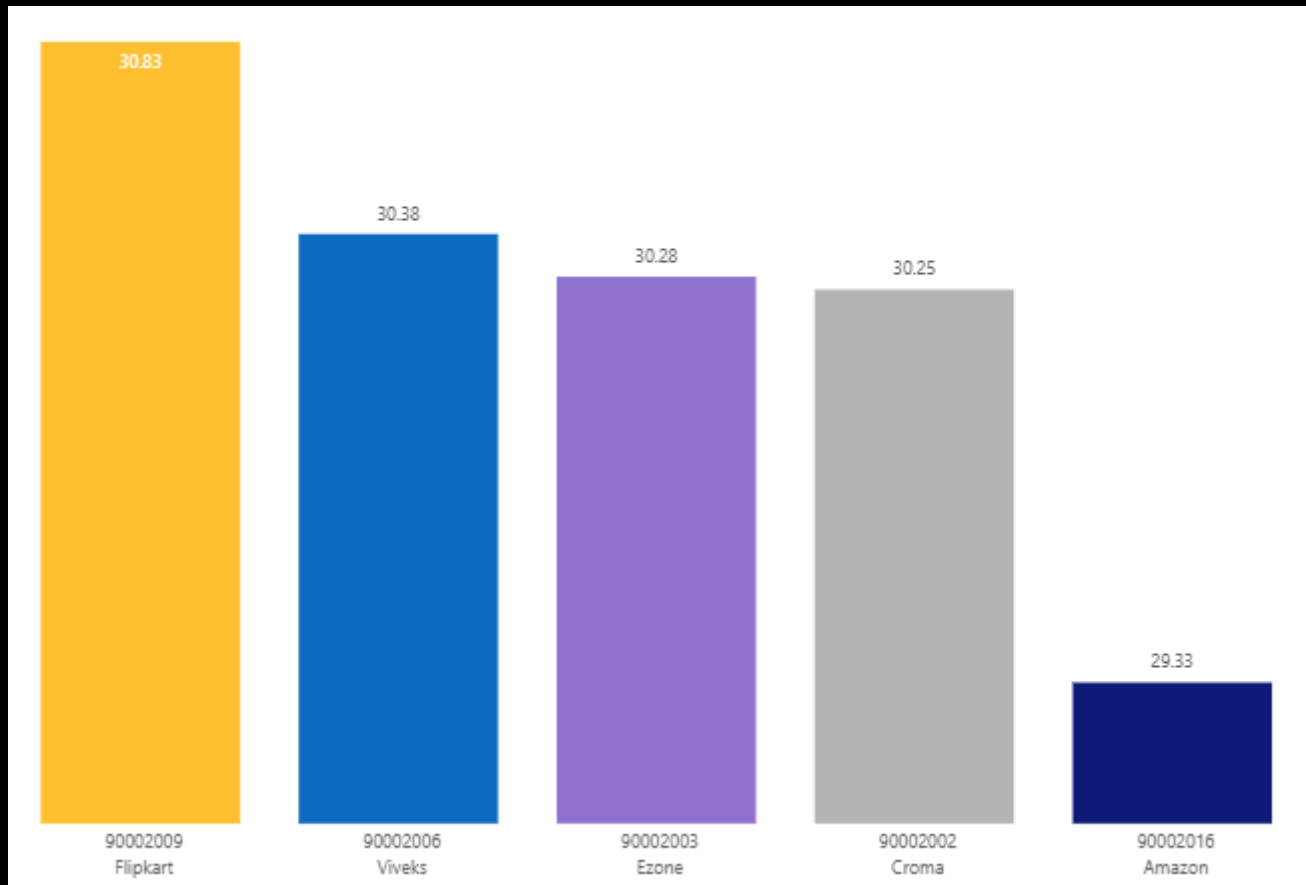
Q 6. Generate a report which contains the top 5 customers who received an average high pre\_invoice\_discount\_pct for the fiscal year 2021 and in the Indian market. The final output contains these fields - customer\_code, customer, average\_discount\_percentage.

```
SELECT
    pre.customer_code,
    c.customer,
    ROUND(
        pre.pre_invoice_discount_pct *
        100, 2 ) AS
    average_discount_percentage
FROM
    fact_pre_invoice_deductions pre
    JOIN dim_customer c ON
    pre.customer_code = c.customer_code
WHERE
    pre.pre_invoice_discount_pct > (
    SELECT
    AVG(pre_invoice_discount_pct)
    FROM
    fact_pre_invoice_deductions)
    AND pre.fiscal_year = 2021
    AND c.market = "India"
ORDER BY
    average_discount_percentage
DESC
LIMIT
    5;
```

## Output:

	customer_code	customer	average_discount_percentage
0	90002009	Flipkart	30.83
1	90002006	Viveks	30.38
2	90002003	Ezone	30.28
3	90002002	Croma	30.25
4	90002016	Amazon	29.33

## VISUAL REPRESENTATION



## INSIGHTS

Flipkart offers the highest average discount at 30.83%, with other top customers receiving similar discounts ranging between 29.33% and 30.83%.

Q 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.

Output:

```
SELECT
    monthname(f.date) AS Month, f.fiscal_year,
    ROUND(
        SUM(g.gross_price * f.sold_quantity)/1000000,
        2
    ) AS Gross_sales_Amount
FROM
    fact_gross_price g
    JOIN fact_sales_monthly f ON g.product_code =
f.product_code
    AND g.fiscal_year = f.fiscal_year
    JOIN dim_customer c ON f.customer_code = c.customer_code
WHERE
    customer = "Atliq Exclusive"
GROUP BY
    Month,
    f.date,
    f.fiscal_year
ORDER BY
    f.date;
```

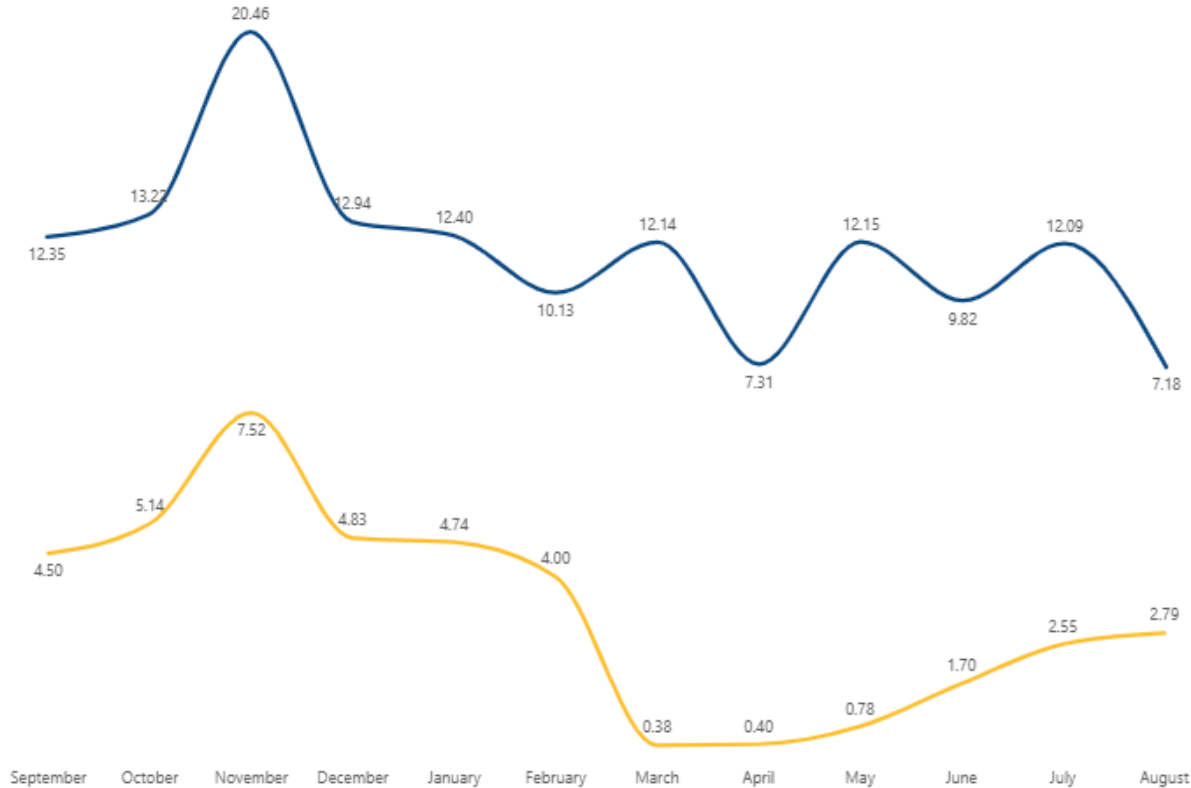
	Month_2020	Gross_sales_Amount
0	September	4.50
1	October	5.14
2	November	7.52
3	December	4.83
4	January	4.74
5	February	4.00
6	March	0.38
7	April	0.40
8	May	0.78
9	June	1.70
10	July	2.55
11	August	2.79

	Month_2021	Gross_sales_Amount
0	September	12.35
1	October	13.22
2	November	20.46
3	December	12.94
4	January	12.40
5	February	10.13
6	March	12.14
7	April	7.31
8	May	12.15
9	June	9.82
10	July	12.09
11	August	7.18

# VISUAL REPRESENTATION

Fiscal year 2021

Fiscal year 2020



Values are in Millions

## INSIGHTS

Sales in FY 2021 were consistently higher than FY 2020, indicating a strong upward trend. November recorded the peak (20.46M), followed by October (13.22M) and December (12.94M), while April and August saw the lowest sales.

Q 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.

```
SELECT
  CASE
    WHEN MONTH(date) BETWEEN 9 AND 11
    THEN "01"
    WHEN MONTH(date) IN (12, 1, 2)
    THEN "02"
    WHEN MONTH(date) BETWEEN 3 AND 5
    THEN "03"
    WHEN MONTH(date) BETWEEN 6 AND 8
    THEN "04"
  END AS Quarter,
  SUM(sold_quantity) AS total_sold_quantity
FROM
  fact_sales_monthly
WHERE
  fiscal_year = 2020
GROUP BY
  Quarter
ORDER BY
  total_sold_quantity DESC;
```

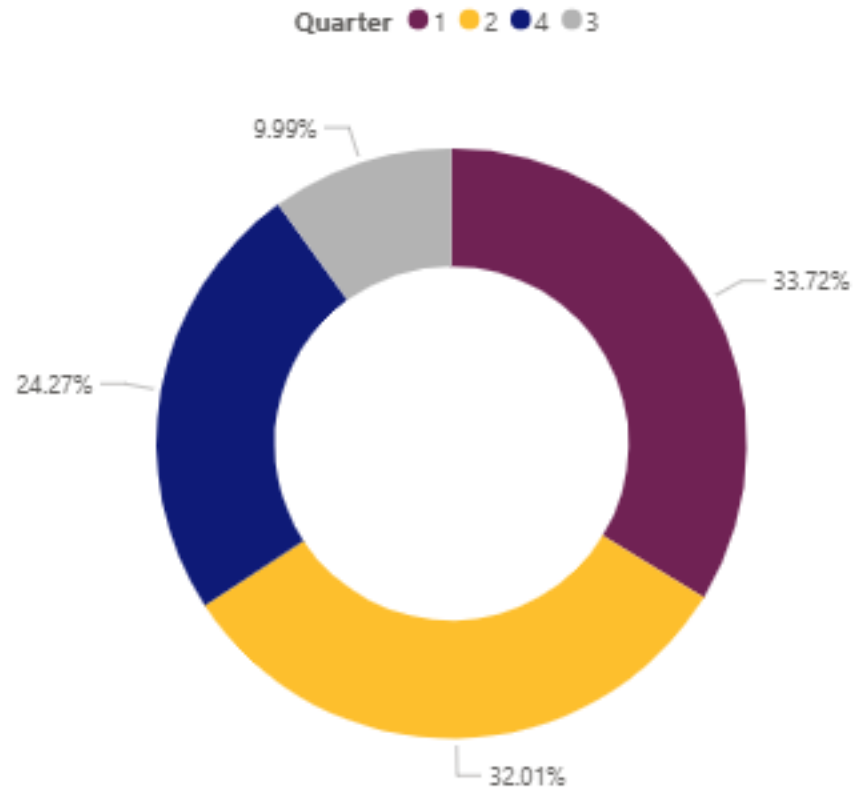
Output:

	Quarter	total_sold_quantity
0	01	7.01
1	02	6.65
2	04	5.04
3	03	2.08

Values are in Millions



# VISUAL REPRESENTATION



## INSIGHTS

Sales peaked in **Q1 (Sep–Nov)** with ₹7.01M, making up **33.72%** of the total.

They dropped sharply by **Q3 (Mar–May)** to just ₹2.08M (**9.99%**).

There was a slight improvement in **Q4**, reaching ₹5.04M (**24.27%**).

Q 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 channel_gross_sales AS(
  SELECT
    c.channel,
    SUM(g.gross_price * f.sold_quantity)/1000000 AS
gross_sales_mln
  FROM
    fact_sales_monthly f
    JOIN fact_gross_price g ON f.product_code = g.product_code
    AND f.fiscal_year = g.fiscal_year
    JOIN dim_customer c ON f.customer_code = c.customer_code
  WHERE
    f.fiscal_year = 2021
  GROUP BY
    c.channel
)
SELECT
  *,
  ROUND(
    gross_sales_mln * 100 / SUM(gross_sales_mln) OVER(),
    2
  ) AS percentage
FROM
  channel_gross_sales;
```

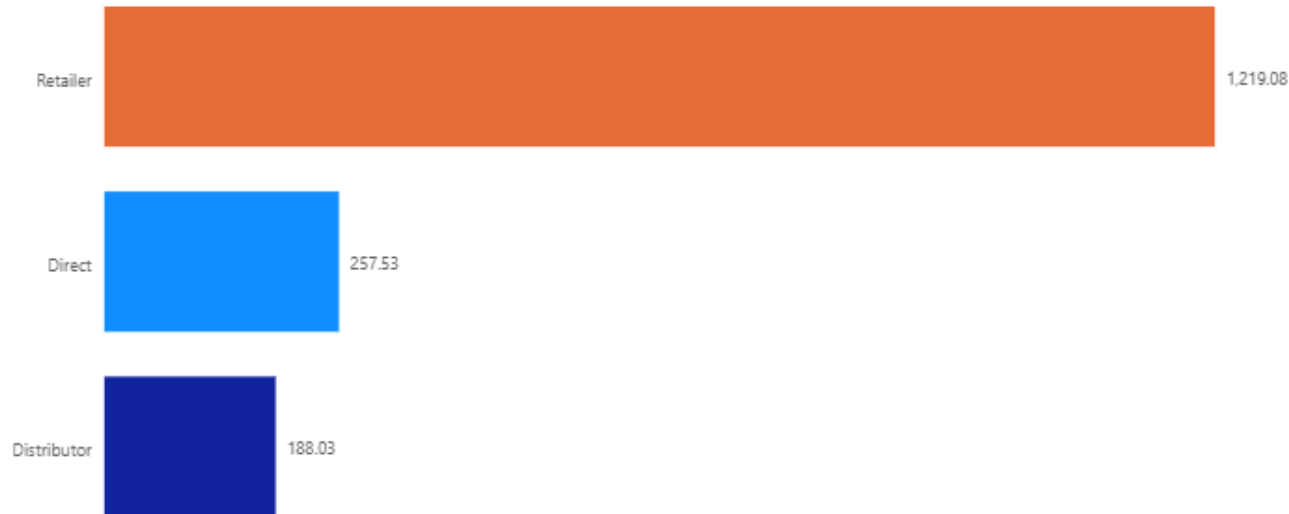
Output:

	channel	gross_sales_mln	percentage
0	Direct	257.532003	15.47
1	Retailer	1219.081640	73.23
2	Distributor	188.025631	11.30

Values are in Millions

# VISUAL REPRESENTATION

channel ● Retailer ● Direct ● Distributor



## INSIGHTS

The **Retailer channel** made the most sales — **₹1,219.08M**, which is **73.23%** of total sales. The **Direct channel** added **15.47%**, and the **Distributor channel** gave the least with **11.30%**.

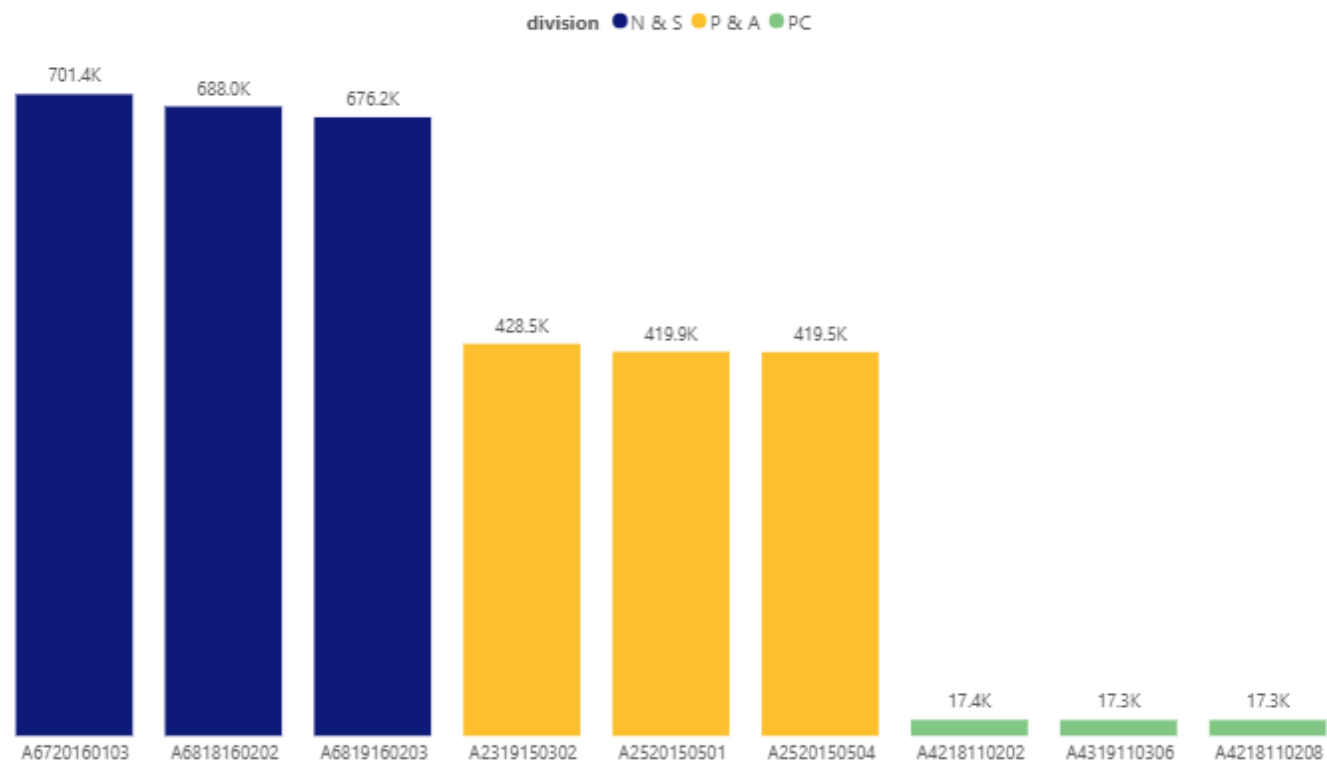
Q 10. Get the Top 3 products in each division that have a high total\_sold\_quantity in the fiscal\_year 2021?

```
WITH product_by_sold_quantity AS (
  SELECT
    f.product_code,
    SUM(f.sold_quantity) AS total_sold_quantity
  FROM
    fact_sales_monthly f
  WHERE
    fiscal_year = 2021
  GROUP BY
    f.product_code
),
ranks AS (
  SELECT
    p.division,
    q.product_code,
    p.product,
    q.total_sold_quantity,
    DENSE_RANK() OVER(
      partition by p.division
      ORDER BY
        total_sold_quantity DESC
    ) AS rank_order
  FROM
    product_by_sold_quantity q
    JOIN dim_product p ON q.product_code = p.product_code
)
SELECT
  *
FROM
  ranks
WHERE
  rank_order <= 3;
```

Output:

	division	product_code	product	total_sold_quantity	rank_order
0	N & S	A6720160103	AQ Pen Drive 2 IN 1	701373.0	1
1	N & S	A6818160202	AQ Pen Drive DRC	688003.0	2
2	N & S	A6819160203	AQ Pen Drive DRC	676245.0	3
3	P & A	A2319150302	AQ Gamers Ms	428498.0	1
4	P & A	A2520150501	AQ Maxima Ms	419865.0	2
5	P & A	A2520150504	AQ Maxima Ms	419471.0	3
6	PC	A4218110202	AQ Digit	17434.0	1
7	PC	A4319110306	AQ Velocity	17280.0	2
8	PC	A4218110208	AQ Digit	17275.0	3

# VISUAL REPRESENTATION



## INSIGHTS

**N & S** and **P & A** divisions had the highest sales, led by products with 701k and 428k units sold. The **PC division** saw the lowest sales, with only 17k units for its top product.