



CONSUMER GOODS INSIGHTS

Tools:



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INTRODUCTION



About Company:

AtliQ Hardware is a company that sells computer hardware to customers worldwide.

Overview:

A comprehensive analysis of consumer goods performance was conducted to know:

- Market Reach & Expansion
- Products Insights
- Customer & Channel Dynamics
- Performance Metrics

Objective:

Ad-Hoc requests



REQUEST-1

Provide the list of markets in which customer “AtliQ Exclusive” operates its business in the APAC region.

QUERY-

```
SELECT DISTINCT(market)
FROM dim_customer
WHERE region = 'APAC'
AND customer = 'Atliq Exclusive';
```

OUTPUT-

Result Grid	
	market
▶	India
	Indonesia
	Japan
	Philippines
	South Korea
	Australia
	Newzealand
	Bangladesh

INSIGHTS-

- AtliQ Hardware serves customers in 27 countries across various regions.
- Once of its customers, Atliq Exclusive operates in 16 countries with 8 of them located in the Asia-Pacific (APAC) region.



REQUEST-2

What is the percentage of unique product increase in 2021 vs 2020?

QUERY-

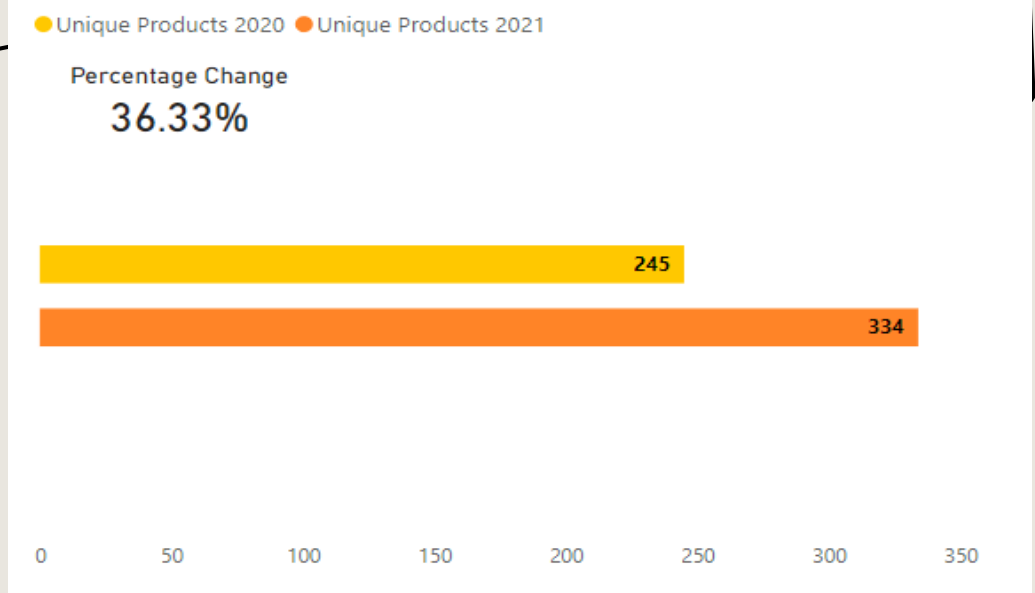
```
with cte1 as (  
  select count(distinct(product_code)) as unique_products_2020  
  from fact_sales_monthly  
  where fiscal_year = 2020),  
  
  cte2 as (  
    select count(distinct(product_code)) as unique_products_2021  
    from fact_sales_monthly  
    where fiscal_year = 2021)  
  
  select *,  
    round((unique_products_2021-unique_products_2020)*100/unique_products_2020,2) as pct_change  
  from cte1,cte2
```

OUTPUT-

unique_products_2020	unique_products_2021	pct_change
245	334	36.33

INSIGHTS-

- In 2021 36% new products were sold as compared to the previous year.



REQUEST-3

Provide a report with all the unique product counts for each segment and sort them in descending order of product counts.

QUERY-

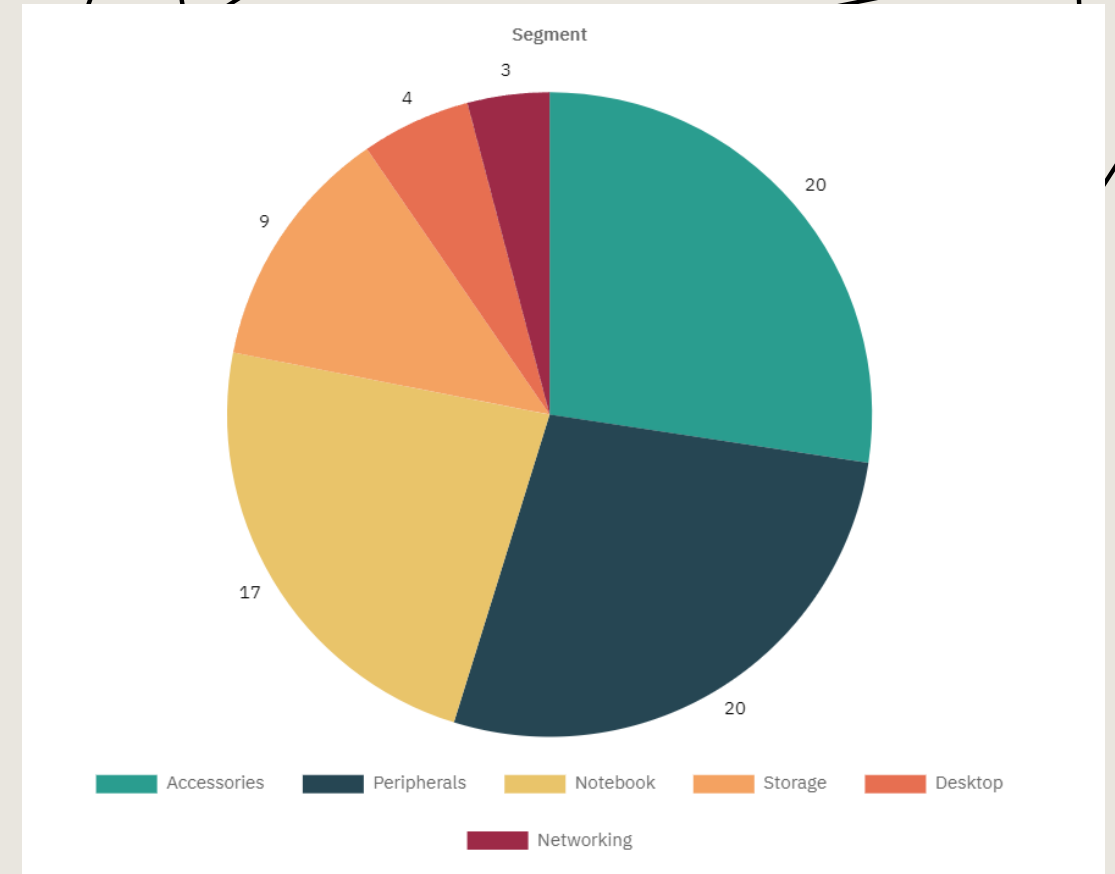
```
SELECT segment,  
count(distinct(product)) as unique_products  
FROM gdb023.dim_product  
group by segment  
order by unique_products desc
```

OUTPUT-

segment	unique_products
Accessories	20
Peripherals	20
Notebook	17
Storage	9
Desktop	4
Networking	3

INSIGHTS-

- The accessories & peripherals segments comprise 54% of the total unique products.



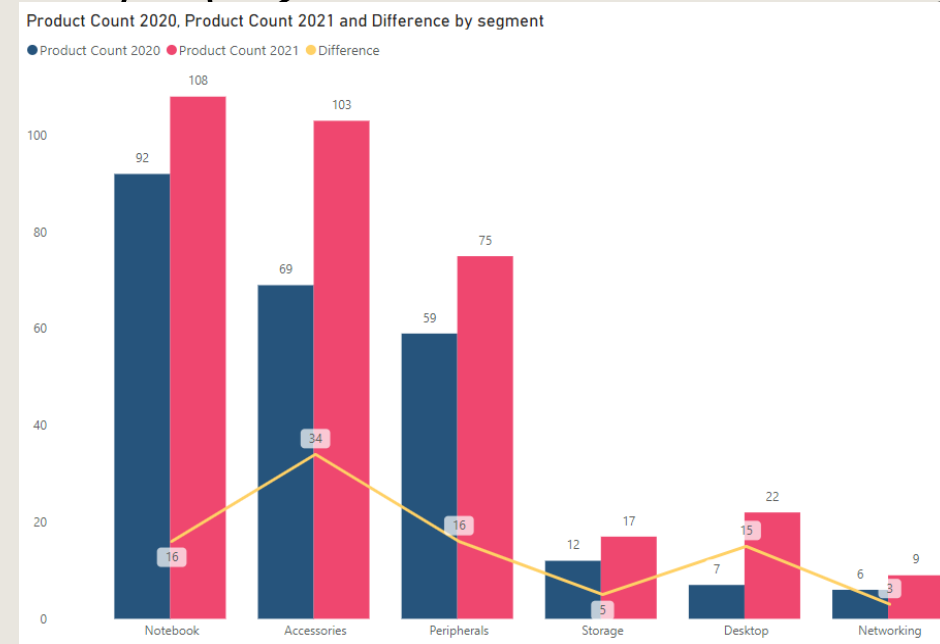
REQUEST-4

Which segment had the most increase in unique products in 2021 vs 2020?

QUERY-

```
WITH cte1 AS(
SELECT
    segment,
    COUNT(DISTINCT(product_code)) AS product_count_2020
FROM fact_sales_monthly
JOIN dim_product
USING (product_code)
WHERE fiscal_year = 2020
GROUP BY segment),
cte2 AS (
SELECT
    segment,
    COUNT(DISTINCT(product_code)) AS product_count_2021
FROM fact_sales_monthly
JOIN dim_product
USING (product_code)
WHERE fiscal_year = 2021
GROUP BY segment)

SELECT * ,
    (product_count_2021-product_count_2020) AS difference
FROM cte1
JOIN cte2
USING (segment)
```



OUTPUT-

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

INSIGHTS-

- The accessories segments experienced the largest growth in unique products adding 34 new products in 2021.

REQUEST-5

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

QUERY-

```
SELECT product_code,product, manufacturing_cost FROM dim_product
JOIN fact_manufacturing_cost
USING (product_code)
WHERE manufacturing_cost = (SELECT max(manufacturing_cost) FROM fact_manufacturing_cost)

UNION

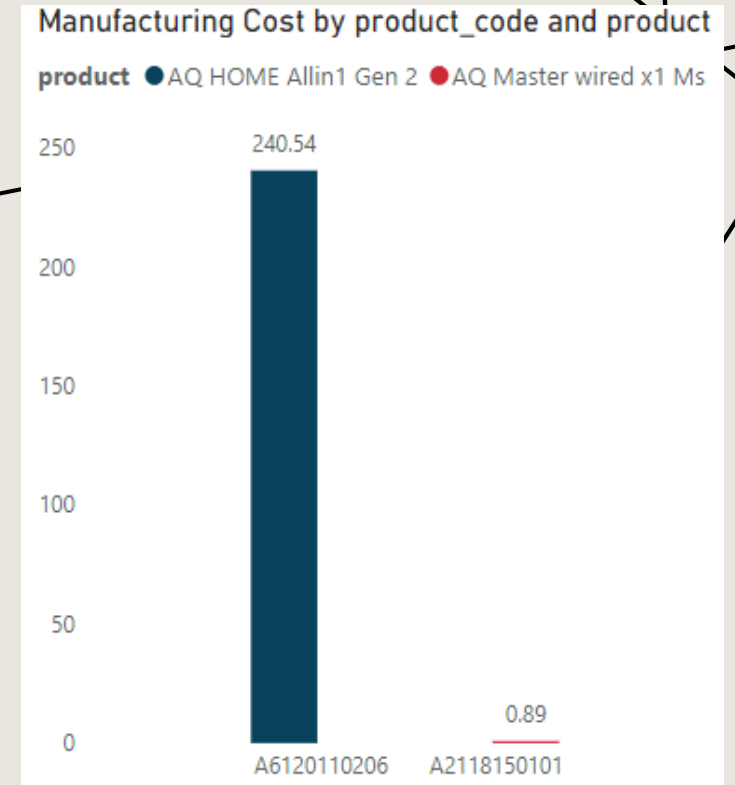
SELECT product_code,product, manufacturing_cost FROM dim_product
JOIN fact_manufacturing_cost
USING (product_code)
WHERE manufacturing_cost = (SELECT min(manufacturing_cost) FROM fact_manufacturing_cost)
```

OUTPUT-

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

INSIGHTS-

- Among all the products 'Home Allin 1 Gen 2' has highest whereas 'Master wired x 1 Ms' has the lowest manufacturing cost.
- The manufacturing cost of 'Home Allin 1 Gen 2' is 270 times higher than that of 'Master wired x1Ms'.



REQUEST-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.

QUERY-

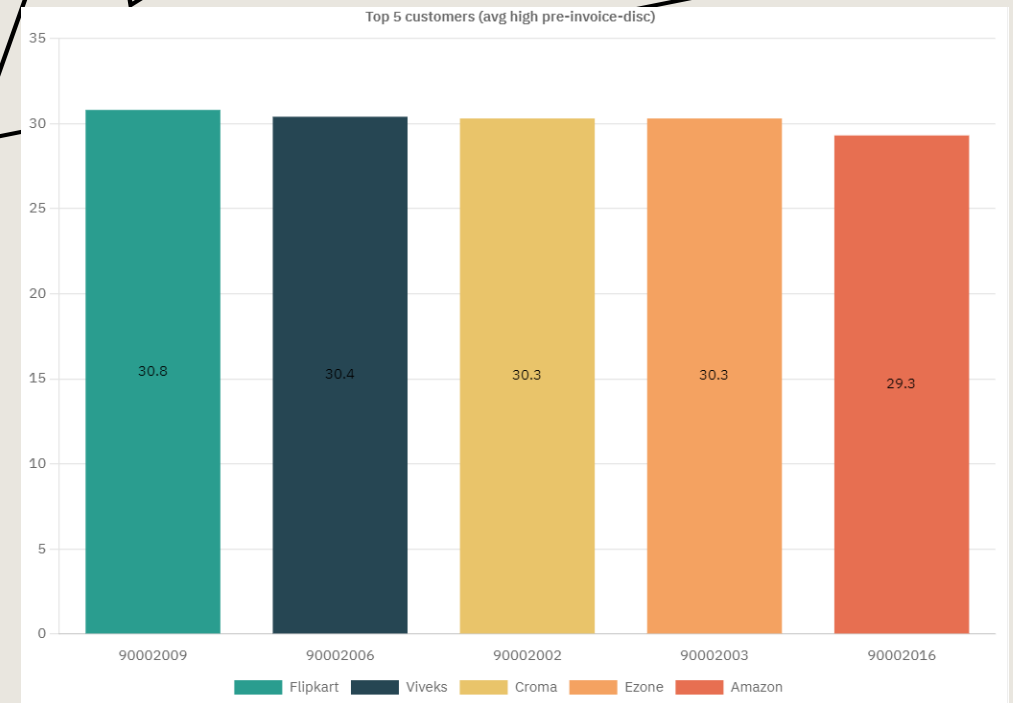
```
SELECT
    customer_code, customer,
    ROUND(AVG(pre_invoice_discount_pct)*100,1) AS avg_disc_pct
FROM fact_pre_invoice_deductions
JOIN dim_customer
USING (customer_code)
WHERE market = "India"
AND fiscal_year = 2021
GROUP BY customer, customer_code
ORDER BY avg_disc_pct DESC
LIMIT 5
```

OUTPUT-

customer_code	customer	avg_disc_pct
90002009	Flipkart	30.8
90002006	Viveks	30.4
90002002	Croma	30.3
90002003	Ezone	30.3
90002016	Amazon	29.3

INSIGHTS-

- In 2021 in the Indian market Flipkart received the highest average pre-invoice discount followed by Viveks, Croma, Ezone and Amazon.



REQUEST-7

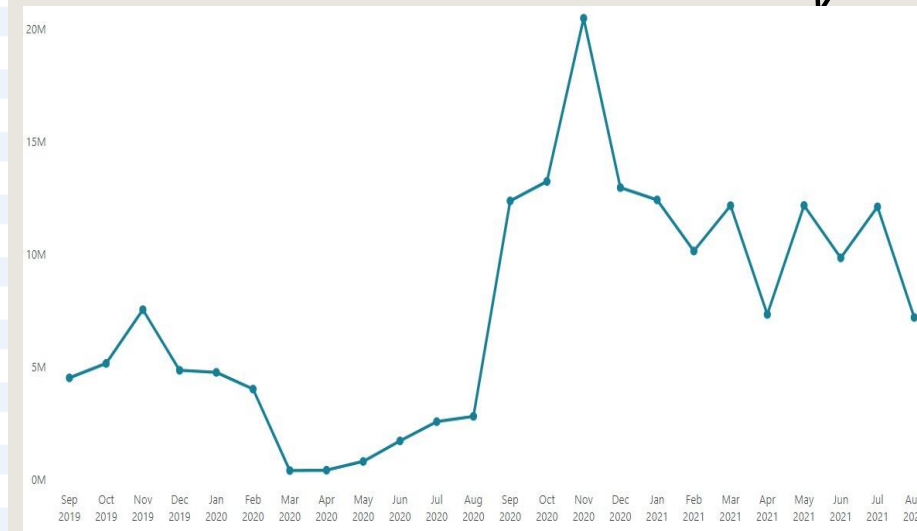
Get the complete report of the Gross sales amount for the customer “Atliq Exclusive” for each month.

QUERY-

```
SELECT CONCAT(  
    MONTHNAME(DATE), ' ',  
    YEAR(DATE) ) AS MONTH,  
    ROUND(SUM(sold_quantity*gross_price),2) AS Gross_sales_Amt  
  
FROM fact_sales_monthly  
JOIN dim_customer  
USING (customer_code)  
JOIN fact_gross_price  
USING(product_code,fiscal_year)  
WHERE customer = "Atliq Exclusive"  
GROUP BY DATE
```

OUTPUT-

Month	Gross_sales_Amt
September 2019	4496259.67
October 2019	5135902.35
November 2019	7522892.56
December 2019	4830404.73
January 2020	4740600.16
February 2020	3996227.77
March 2020	378770.97
April 2020	395035.35
May 2020	783813.42
June 2020	1695216.60
July 2020	2551159.16
August 2020	2786648.26
September 2020	12353509.79
October 2020	13218636.20
November 2020	20464999.10
December 2020	12944659.65
January 2021	12399392.98
February 2021	10129735.57
March 2021	12144061.25
April 2021	7311999.95
May 2021	12150225.01
June 2021	9824521.01
July 2021	12092346.32
August 2021	7178707.59



INSIGHTS-

- For Atliq Exclusive November 2020 recorded the highest Gross sales amount reaching 20 Millions.

REQUEST-8

In which quarter of 2020 got the maximum total sold quantity?

QUERY-

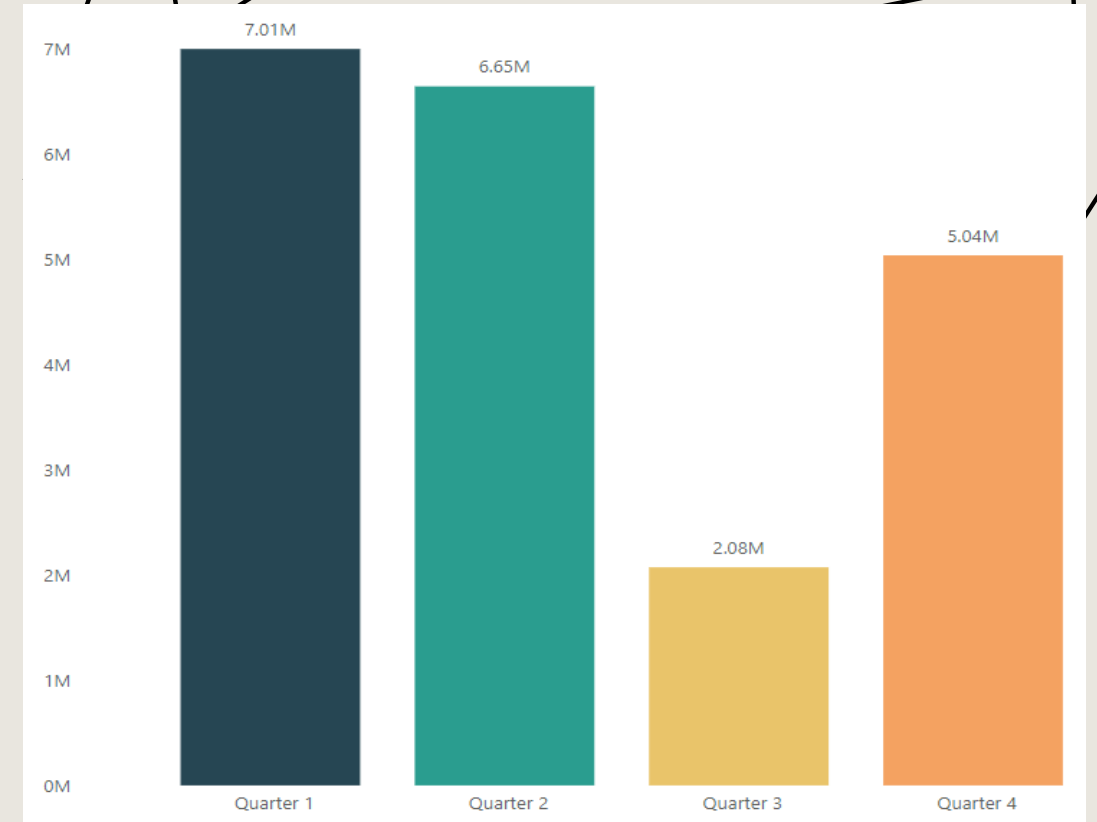
```
SELECT  
QUARTER((DATE_ADD(DATE, INTERVAL 4 MONTH))) AS quarter,  
SUM((sold_quantity)) AS total_sold_quantity  
  
FROM fact_sales_monthly  
WHERE fiscal_year = 2020  
GROUP BY QUARTER
```

OUTPUT-

Quarter	total_sold_quantity
1	7005619
2	6649642
3	2075087
4	5042541

INSIGHTS-

- In FY 2020 Q1 achieved the highest sold quantity exceeding 7 million units.
- Sold quantities declined in Q2 and Q3 rebounded in Q4 reaching 5.04 million units.



REQUEST-9

Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution?

QUERY-

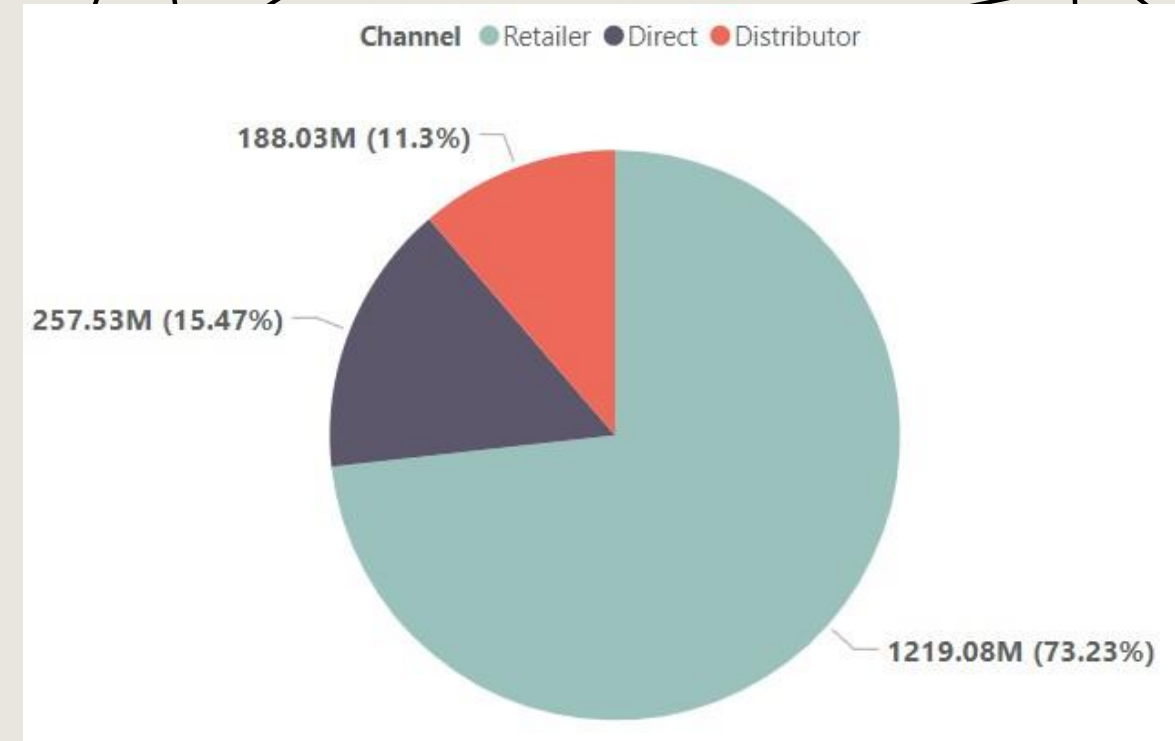
```
WITH cte AS (  
  SELECT channel,  
         ROUND((SUM(sold_quantity*gross_price))/1000000,2) AS gross_sales_mln  
  FROM fact_sales_monthly  
  JOIN fact_gross_price  
  USING (product_code, fiscal_year)  
  JOIN dim_customer  
  USING (customer_code)  
  WHERE fiscal_year = 2021  
  GROUP BY CHANNEL)  
SELECT *,  
       ROUND(gross_sales_mln*100/SUM(gross_sales_mln) OVER (),2) AS percentage  
FROM cte
```

OUTPUT-

channel	gross_sales_mln	percentage
Direct	257.53	15.47
Retailer	1219.08	73.23
Distributor	188.03	11.30

INSIGHTS-

- The Retailer channel contributed 73.23% of the Gross sales.



REQUEST-10

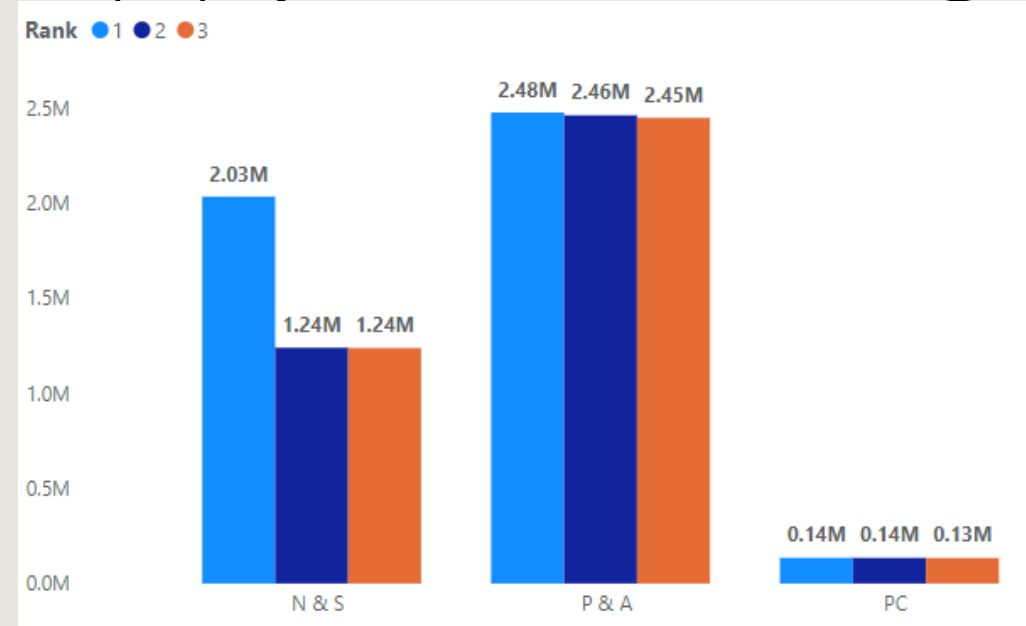
Get the Top 3 products in each division that have a high total sold quantity in the fiscal year 2021?

QUERY-

```
WITH cte1 AS (  
  SELECT  
    MAX(division) AS division,  
    MAX(product_code) AS product_code,  
    MAX(product) AS product,  
    SUM(sold_quantity) AS total_sold_quantity  
  FROM fact_sales_monthly  
  JOIN dim_product  
  USING (product_code)  
  WHERE fiscal_year = 2021  
  GROUP BY product  
  ORDER BY division),  
  
cte2 AS (  
  SELECT *,  
    RANK() OVER (PARTITION BY division ORDER BY total_sold_quantity DESC) AS rnk  
  FROM cte1)  
SELECT * FROM cte2 WHERE rnk <=3
```

OUTPUT-

division	product_code	product	total_sold_quantity	rnk
N & S	A6819160203	AQ Pen Drive DRC	2034569	1
N & S	A6219160103	AQ Digit SSD	1240149	2
N & S	A6419160303	AQ Clx1	1238683	3
P & A	A2319150306	AQ Gamers Ms	2477098	1
P & A	A2520150506	AQ Maxima Ms	2461991	2
P & A	A2219150206	AQ Master wireless x1 Ms	2448784	3
PC	A4218110208	AQ Digit	135092	1
PC	A4620110608	AQ Gen Y	135031	2
PC	A4419110408	AQ Elite	134431	3



INSIGHTS-

- The Top 3 products from P&A division each surpassed 2.4M units in sold quantity.



Image Source: www.google.com

Resume Project Challenge #4: www.codebasics.io

GitHub: [click to view](#)

Thank you !

