Consumer Goods AdHoc Insights

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INTRODUCTION

AtliqHardware is a leading computer hardware manufacturer in India, extending its influence to international markets. Despite its prominence, management acknowledges a lack of comprehensive insights hindering informed decision-making.

Atliq's market presence extends globally, encompassing regions across APAC, EU, LATAM, and NA.

To assess potential candidates thoroughly, Data Analytics Director Tony Sharma proposes conducting a SQL challenge to evaluate both technical proficiency and soft skills.
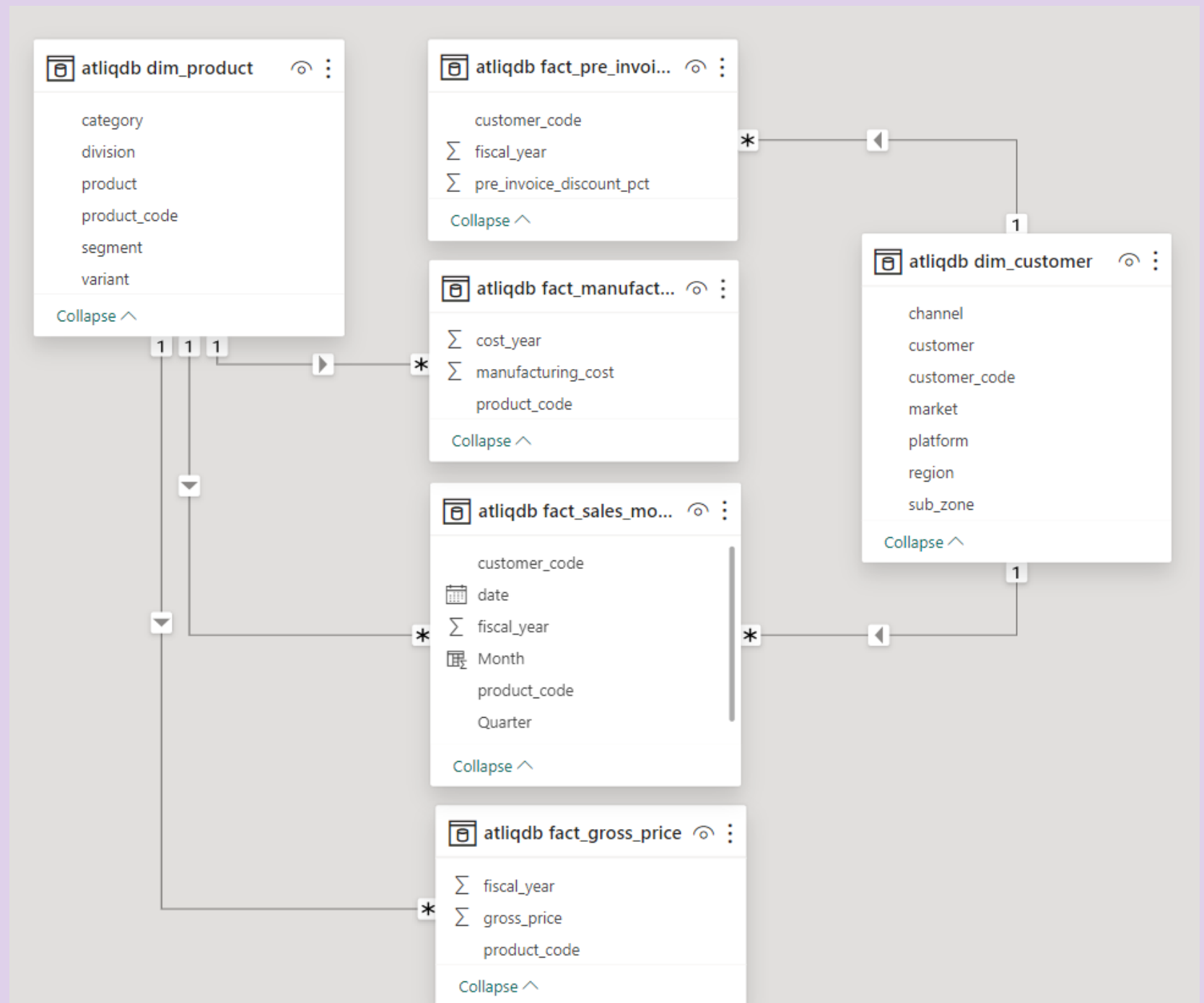
Furthermore, the company requires insights for ten ad hoc requests, emphasizing the need for data-driven decision-making across various operational aspects.

Atliq's Global Market

Data tables consists of Sales data for FY 2020 and FY 2021, customer details, product details, manufacturing details, price details etc.

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_change

unique_products_2020	unique_products_2021	per_change
245	334	36.33

1. **Dynamic Innovation:** The 36.33% increase in product count from FY 2020 to FY 2021 (245 to 334 products) indicates a proactive stance towards innovation, enabling the company to continually refresh its offerings and stay competitive in evolving markets.

2. **Aligned Growth:** reflecting a synchronized approach to growth and market responsiveness.


% Increase in product from 2020 to 2021
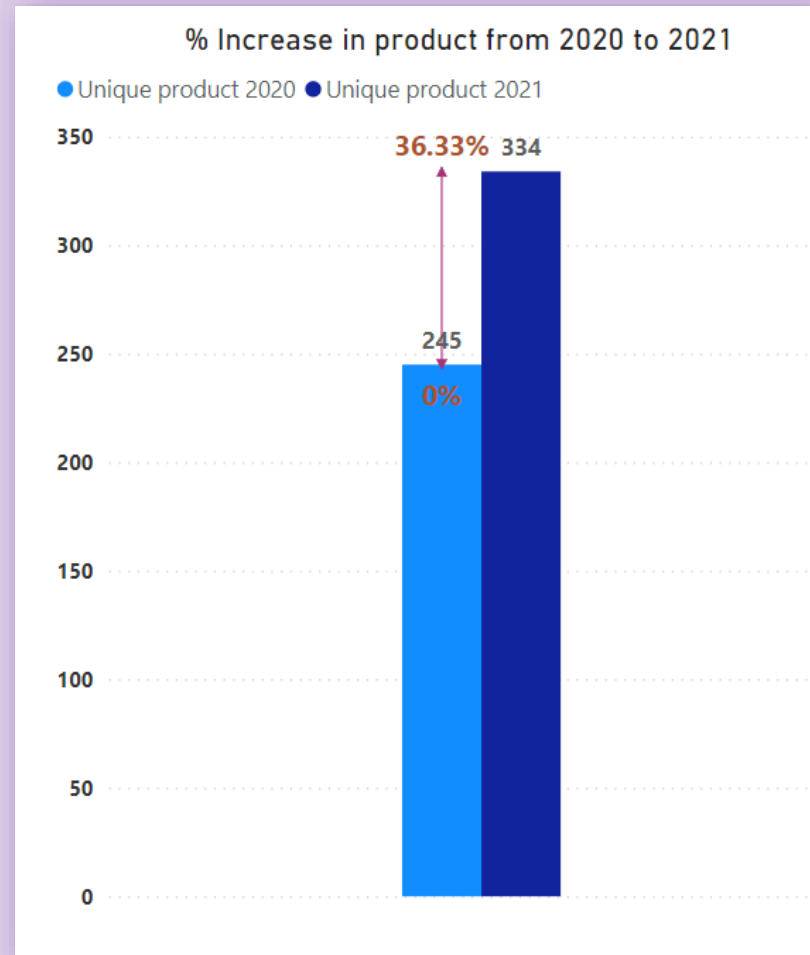
3.Provide a report with all the unique product counts for each segment and sort them in descending order of product counts. The final output contains 2 fields:
Segment,
product_count

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

INSIGHTS:

1. While segments like Notebooks, Peripherals, and Accessories boast an average of 110 products each, indicating substantial manufacturing activity, segments like Desktops, Networking, and Storage lag behind with only around 23 products on average, highlighting the need for diversification in these areas.

2. The manufacturing growth in segments such as Notebooks, Accessories, and Peripherals is pronounced, with these segments collectively constituting 83% of the total manufactured products, underlining their significant contribution to overall manufacturing output compared to Desktops, Storage, and Networking segments.

Unique product counts by segment
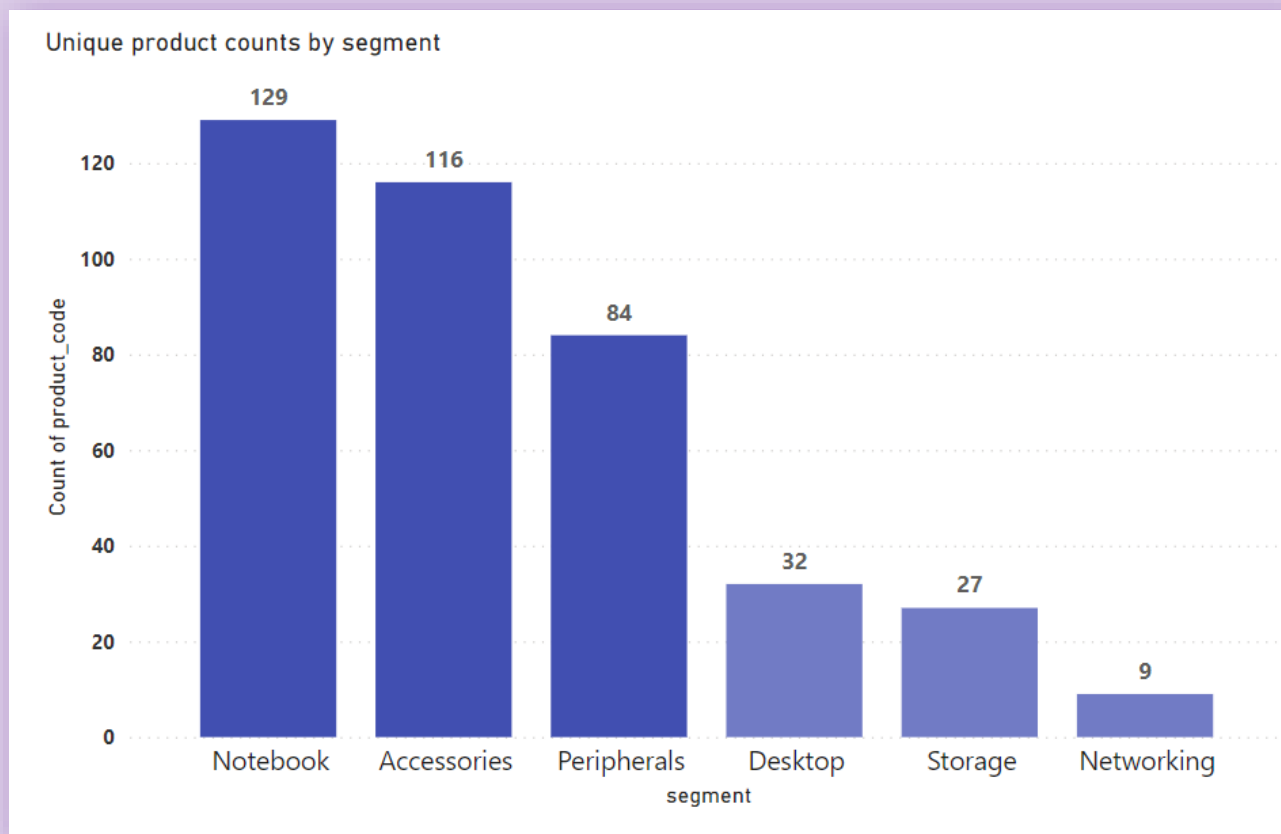
4.Follow-up: Which segment had the most increase in unique products in 2021 vs 2020? The final output contains these fields:
segment,
product_count_2020,
product_count_2021,
difference

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

INSIGHTS:

1. Strategic Focus on Accessories: The introduction of 34 new accessory products underscores a strategic push to expand the segment, aligning with evolving consumer demands.

2. Production Variations: Slower growth in storage and networking production signals the need for optimization or strategic reassessment to better match production capacity with market dynamics or to explore avenues for stimulating growth in these segments.

Unique product difference per segment from 2020 to 2021

● Unique product 2020 ● Unique product 2021

segment	Unique product 2020	Unique product 2021	difference
Notebook	92	108	16
Accessories	69	103	34
Peripherals	59	75	16
Storage	12	17	5
Desktop	7	22	15
Networking	—	9	3
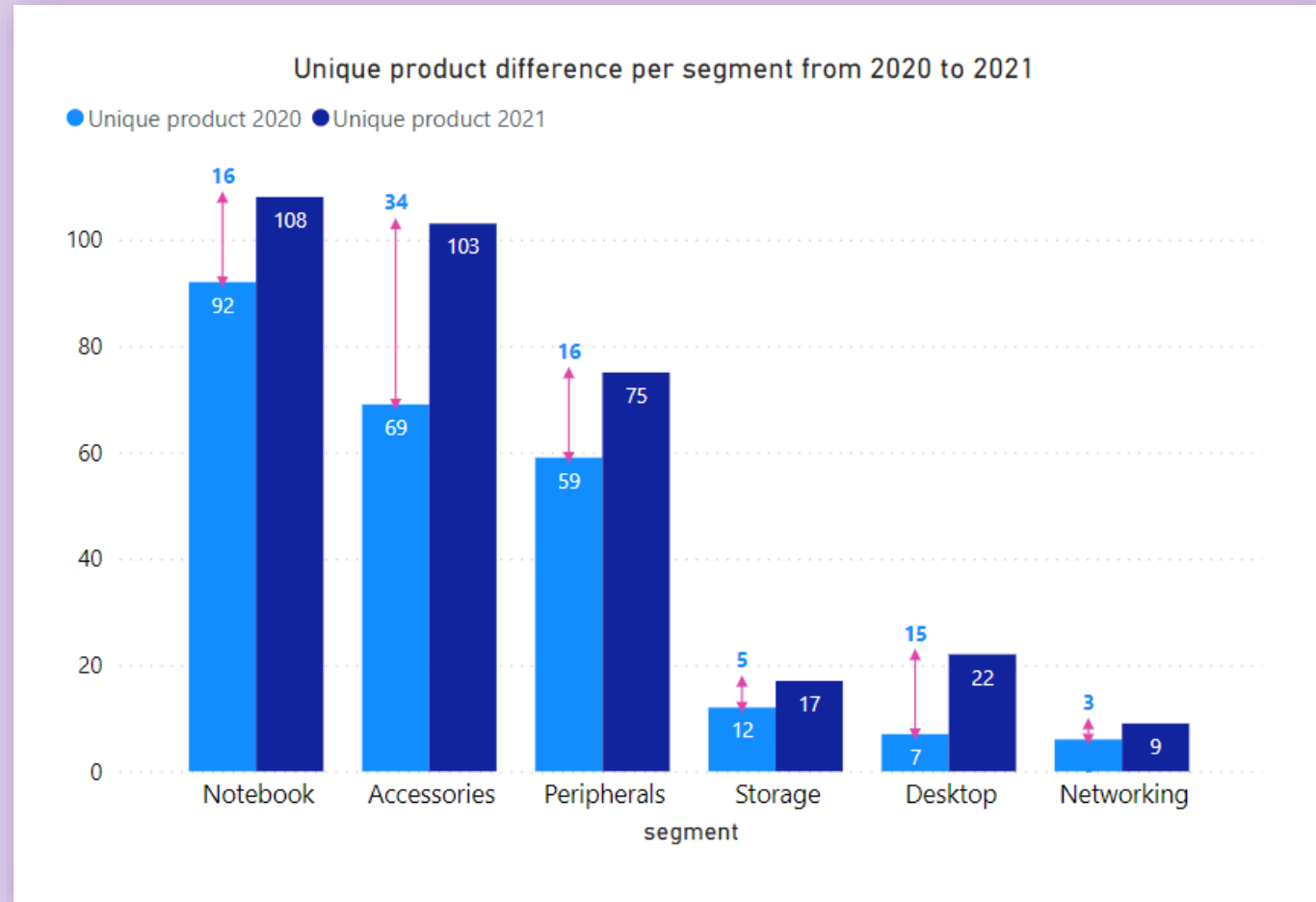
5.Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields:
product_code,
product,
manufacturing_cost

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

INSIGHTS:

Personal Desktop: AQ Home Allin1 Gen2 (Variant:Plus3) has the highest manufacturing cost..

Mouse: AQ Master wired x1 Ms (Variant:Standard1) has the lowest manufacturing cost.

Highest Manufacturing Cost

240.54 $

A6120110206
Personal Desktop
AQ HOME Allin1 Gen 2

Lowest Manufacturing Cost

0.89 $

A2118150101
Mouse
AQ Master wired x1 Ms

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

customer_code	customer	avg_discount_pct
90002009	Flipkart	0.3083
90002006	Viveks	0.3038
90002003	Ezone	0.3028
90002002	Croma	0.3025
90002016	Amazon	0.2933

INSIGHTS:

1. Uniform Discount Strategy: The company's approach of offering nearly equal pre-invoice discount percentages to its top 5 customers suggests a consistent and balanced discounting strategy aimed at maintaining competitiveness across key accounts.

2. Market Positioning: While Flipkart receives the highest average pre-invoice discount, indicating its prominence in the Indian market.


Top 5 Indian customers with highest average discount percentage
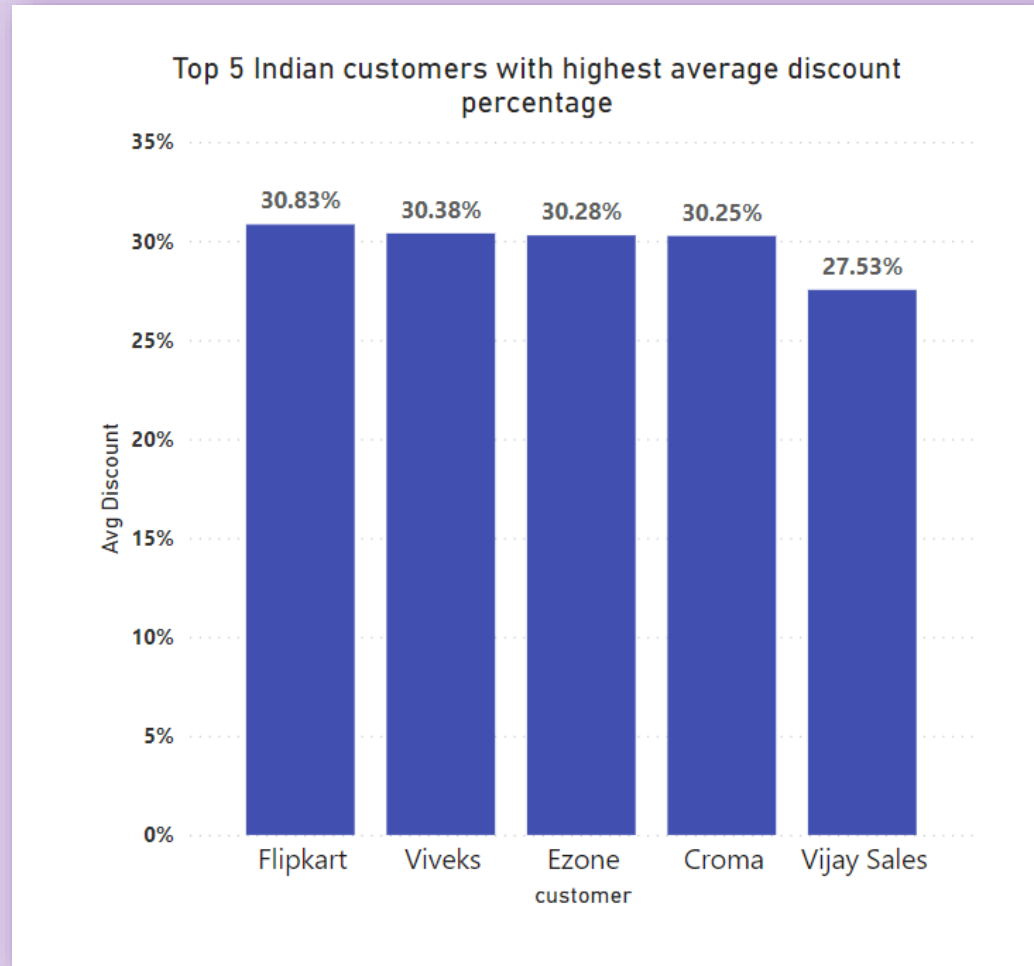
7.Get the complete report of the Gross sales amount for the customer "Atliq Exclusive" for each month. This analysis helps to get an idea of low and highperforming months and take strategic decisions. The final report contains these columns: Month,
Year,
Gross sales Amount

Year	month	gross_sales_amount
2019	September	9.09 m
2019	October	10.38 m
2019	November	15.23 m
2019	December	9.76 m
2020	January	9.58 m
2020	February	8.08 m
2020	March	0.77 m
2020	April	0.80 m
2020	May	1.59 m
2020	June	3.43 m
2020	July	5.15 m
2020	August	5.64 m
2020	September	19.53 m
2020	October	21.02 m
2020	November	32.25 m
2020	December	20.41 m
2021	January	19.57 m
2021	February	15.99 m
2021	March	19.15 m
2021	April	11.48 m
2021	May	19.20 m
2021	June	15.46 m
2021	July	19.04 m
2021	August	11.32 m

INSIGHTS:

1. COVID-19 Impact: March 2020 saw the lowest gross sales for Atliq Exclusive, reflecting the initial downturn attributed to the COVID-19 pandemic, while the subsequent months up to August also experienced suppressed sales due to pandemic-related challenges.

2.Resilient Recovery: Following August, there was a notable rebound in sales, culminating in November 2020 recording the highest sales figure for the period, indicating a swift recovery and resilience in the business despite the earlier pandemic-induced downturn.

Sales Trend of Atliq Exclusive
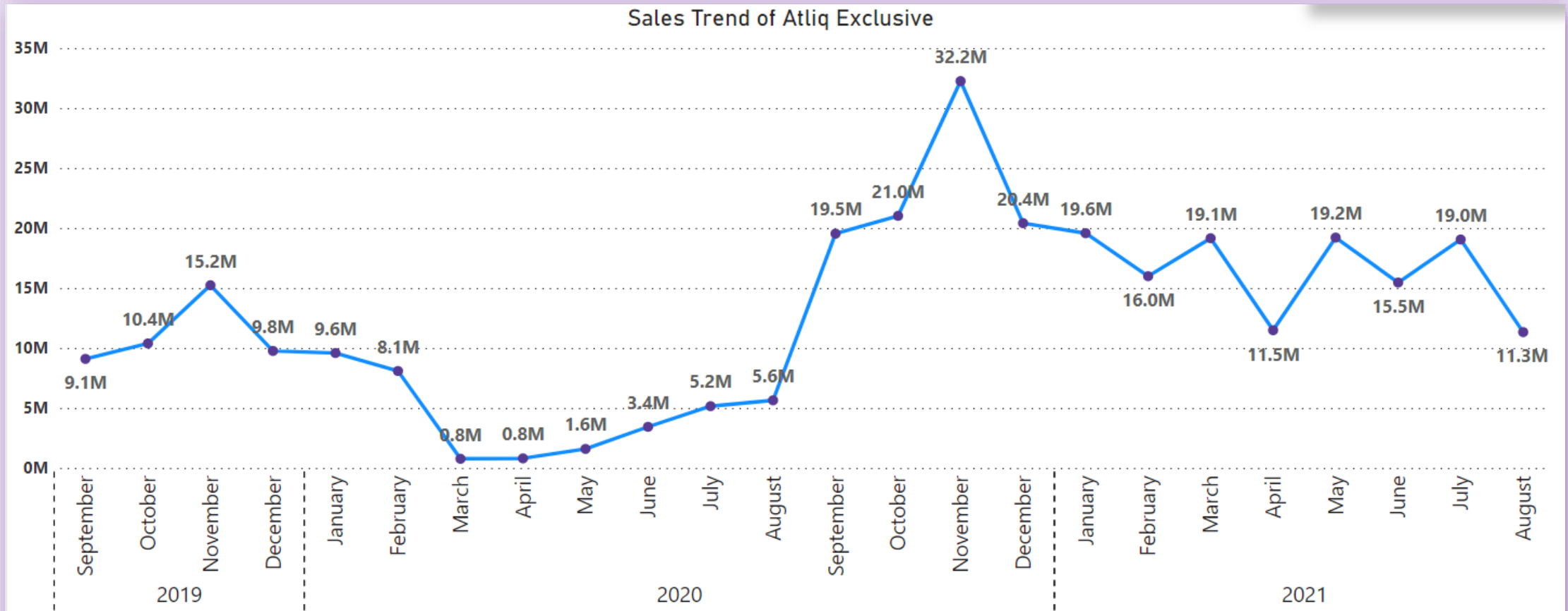
8.In which quarter of 2020, got the maximum total_sold_quantity? The final output contains these fields sorted by the total_sold_quantity:
Quarter,
total_sold_quantity

|	quarter	total_sold_quanity_in_millions
▶	Q1	7.01
	Q2	6.65
	Q4	5.04
	Q3	2.08

>>> INSIGHTS:

1. COVID-19 Impact on Sales:Despite a dip in sales to 2.1 million units in Q3 FY 2020 (March-May), attributed to the peak of the pandemic, the company's early recovery in Q4 suggests resilience.

2. Education-Driven Demand:The surge in hardware sales, including desktops and notebooks, during Q4 FY 2020 coincides with the increased demand from students transitioning to online coursework, indicating a shift in consumer needs due to the pandemic.

3. Seasonal Sales Dynamics: Quarter 1 FY 2020 saw the highest overall units sold, accounting for 34% of the total, while the lowest sales occurred in Q3. Additionally, December and March marked the highest and lowest overall sold quantity respectively, reflecting seasonal variations in demand.

Quarter	Month	Total sales amount
Q2	December	16,88,12,491.41
Q1	November	15,91,12,674.12
Q1	October	11,47,00,230.89
Q4	August	9,27,99,404.01
Q2	January	9,17,83,169.98
Q1	September	9,13,20,542.42
Q4	July	8,91,66,652.01
Q2	February	8,88,86,540.27
Q4	June	8,10,63,812.44
Q3	May	5,30,44,063.57
Q3	April	4,16,99,282.45
Q3	March	1,12,93,915.25

Sold Quantity by Quarter FY2020

- Q1: 7.0M
- Q2: 6.6M
- Q4: 5.0M
- Q3: 2.1M
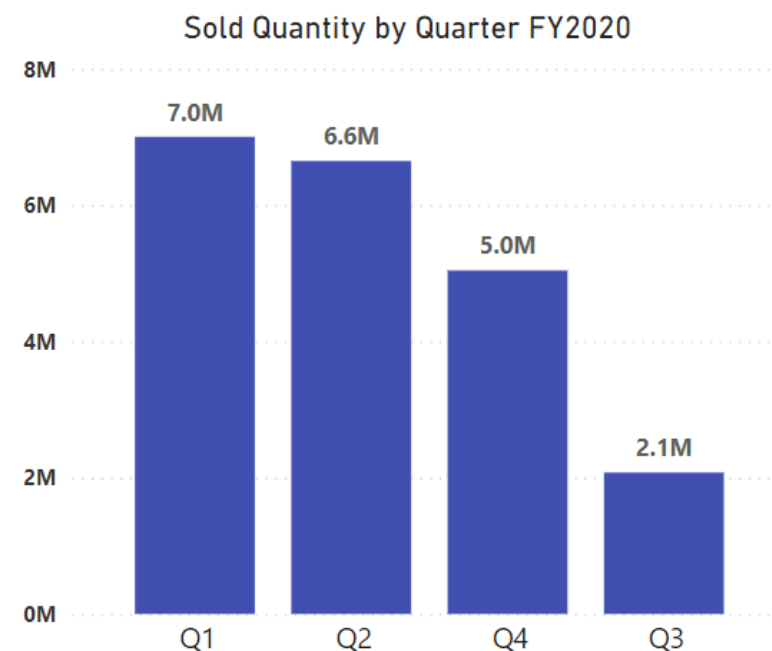
9.Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution? The final output contains these fields:
Channel,
gross_sales_mln percentage

channel	gross_sales_in_millions	percentage
Retailer	1924.17	73.22
Direct	406.69	15.47
Distributor	297.18	11.31

⟫ INSIGHTS:

1.Retail Dominance:Retailers emerged as the primary sales channel, contributing significantly with 75% of total sales and accounting for the highest contribution percentage of 73.22%, showcasing their pivotal role in driving company revenues.

2.Limited Distributor Impact: While distributors play a role, their contribution is comparatively smaller at 11.31%, indicating a lesser influence on overall sales compared to other channels, highlighting potential areas for channel optimization or expansion.

Total Sales by Channels

channel ● Retailer ● Direct ● Distributor

297.18M (11.31%)

406.69M (15.47%)

1924.17M (73.22%)
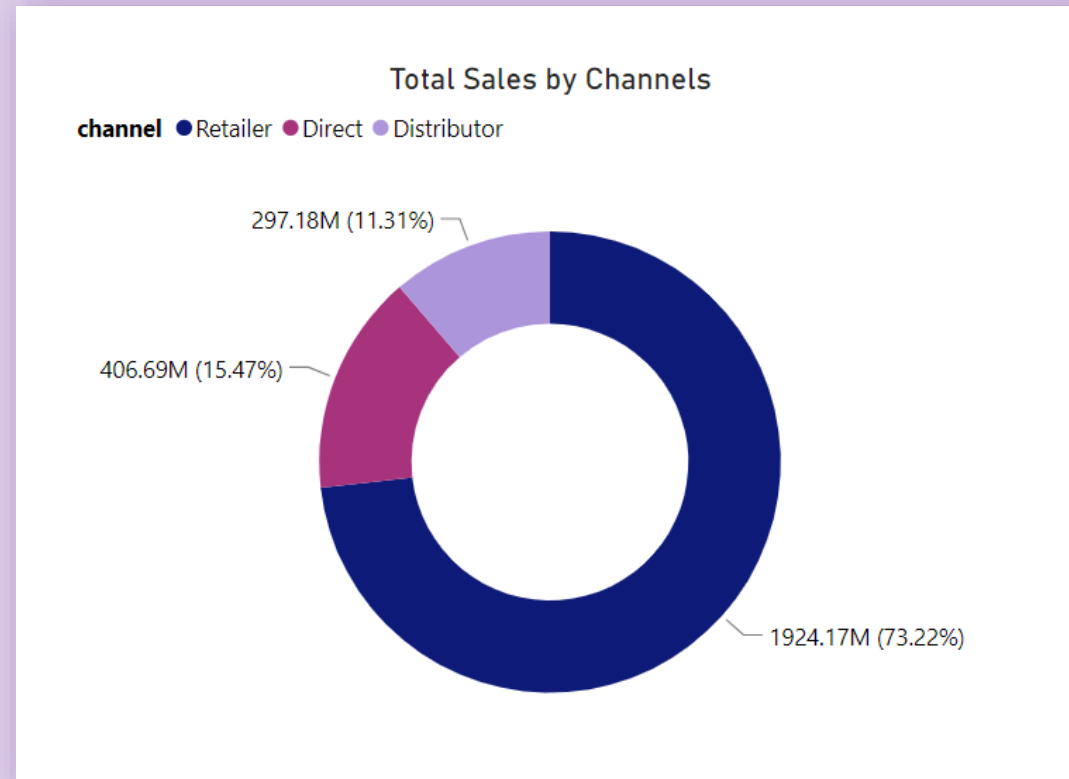
10.Get the Top 3 products in each division that have a high total_sold_quantity in the fiscal_year 2021? The final output contains these fields:
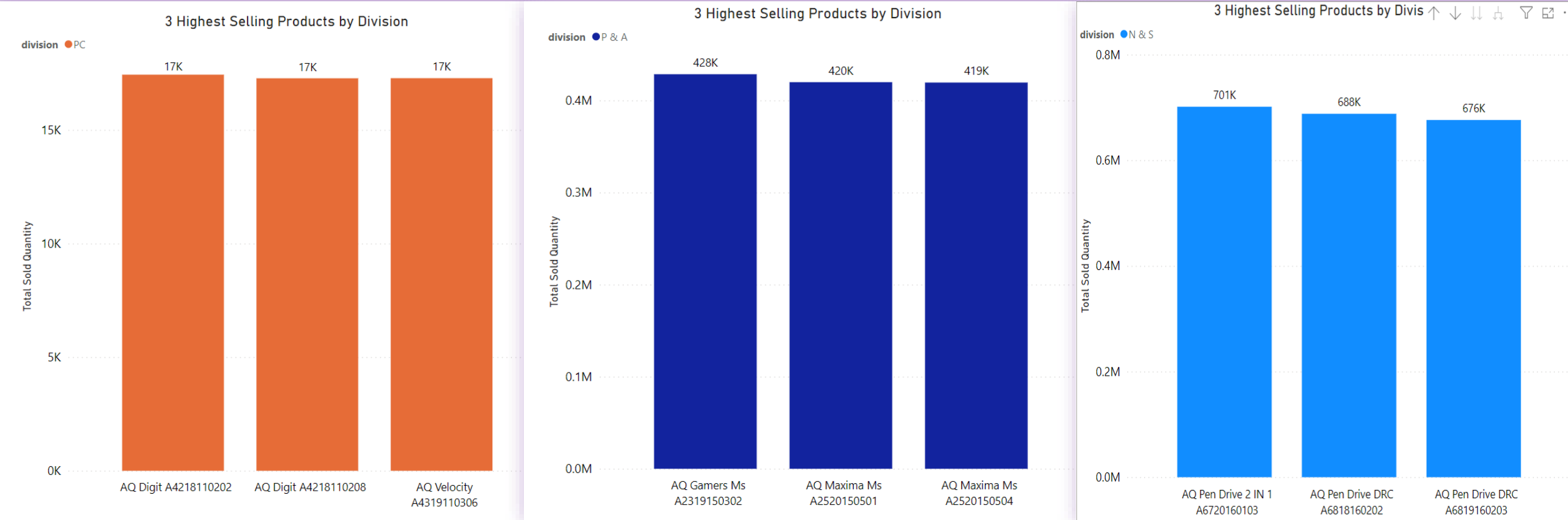division,
product_code,
total_sold_quantity,
rank_order

division	product_code	total_sold_quantity	rank_order
N & S	A6720160103	701373	1
N & S	A6818160202	688003	2
N & S	A6819160203	676245	3
P & A	A2319150302	428498	1
P & A	A2520150501	419865	2
P & A	A2520150504	419471	3
PC	A4218110202	17434	1
PC	A4319110306	17280	2
PC	A4218110208	17275	3

>>>INSIGHTS:

1.Top Sellers by Division: Pen drives emerged as the top-selling products in the N&S division, totaling around 700,000 units, followed b0y mice in the P&A division, selling approximately 400,000 units, and personal laptops in the PC division, with sales reaching around 17,000 units.

2.Diverse Sales Volumes: Despite different product categories, sales volumes varied significantly across divisions, with pen drives dominating N&S, mice leading P&A, and personal laptops being the top sellers in PC, reflecting the diverse consumer preferences and market dynamics in each division.

THANK YOU