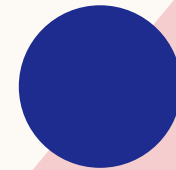# AD-HOC INSIGHTS

For Consumer Goods
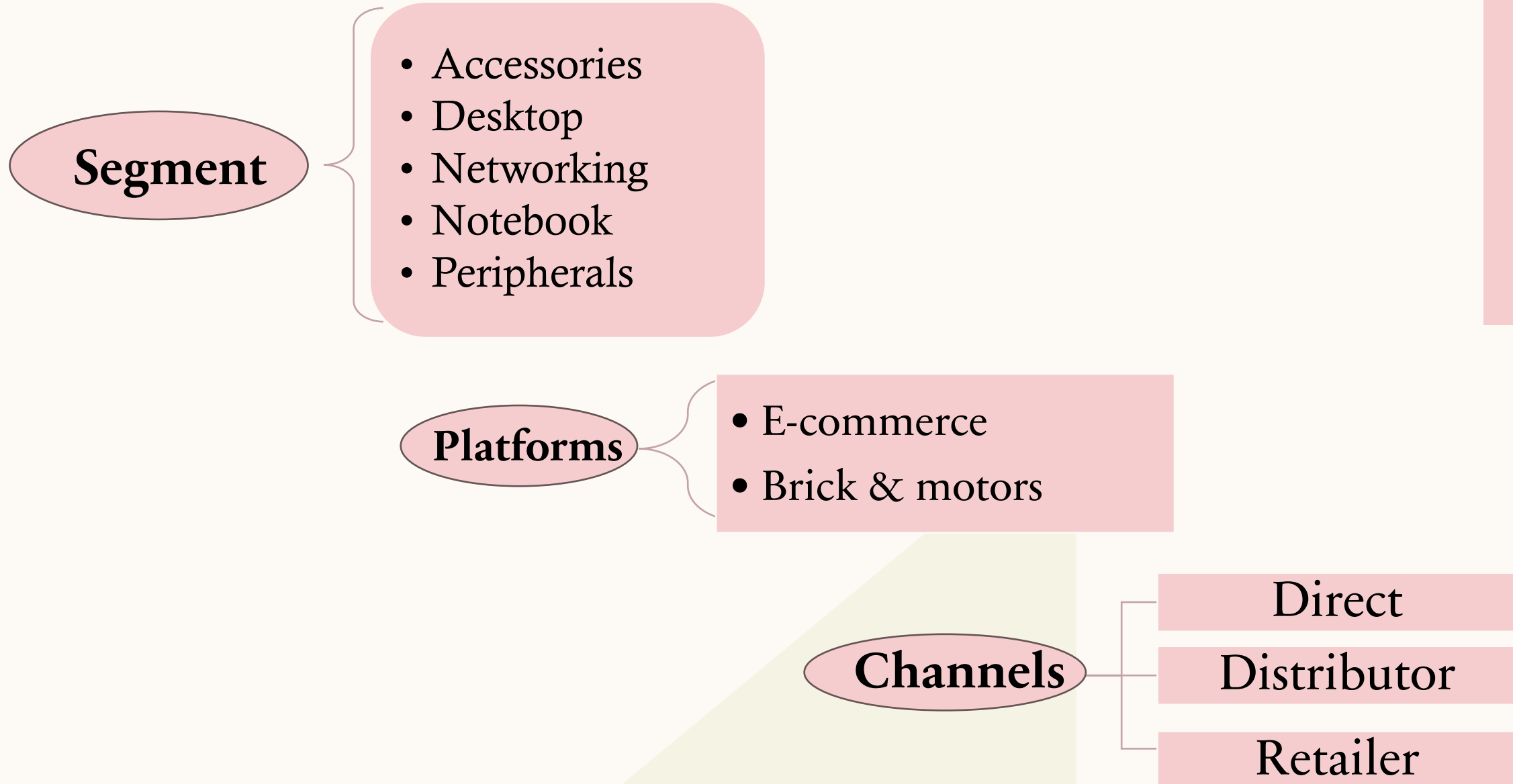
Presented By – Shivam Rajput

Agenda

1. Company Introduction & Objective

2. Business Understanding

3. What is Ad-hoc analysis ?

4. Data Model

5. Ad –hoc requests & Insights

6. Recommendations

1.Company Introduction & Objective

➢ **Atliq Hardware** is a leading company in the **computer hardware** industry, **renowned** for its **innovative products** and **strong market presence.** The **company operates** across multiple **international markets**, continually striving to meet evolving customer needs and market conditions.

➢ The **primary objective** of this project is to derive **actionable insights** from ad-hoc data requests to **support Atliq Hardware's strategic decision-making process.** By examining **market trends**, **product performance**, and **sales data**, we aim to offer recommendations that will **improve operational efficiency**, **boost customer satisfaction**, and **increase overall profitability.**

2. Business Understanding

Segment
- Accessories
- Desktop
- Networking
- Notebook
- Peripherals

Platforms
- E-commerce
- Brick & motors

Channels
- Direct
- Distributor
- Retailer

3. What Is Ad-hoc Analysis?

➢ Ad hoc analysis is a **flexible, purpose-driven process** where specific, one-time reports or analyses are created on demand to answer particular business questions. It is typically performed by end-users using tools like **Excel**, **Power BI**, or **SQL queries**. This approach provides timely, customized insights, empowering users to make informed decisions quickly without relying on routine reporting processes.
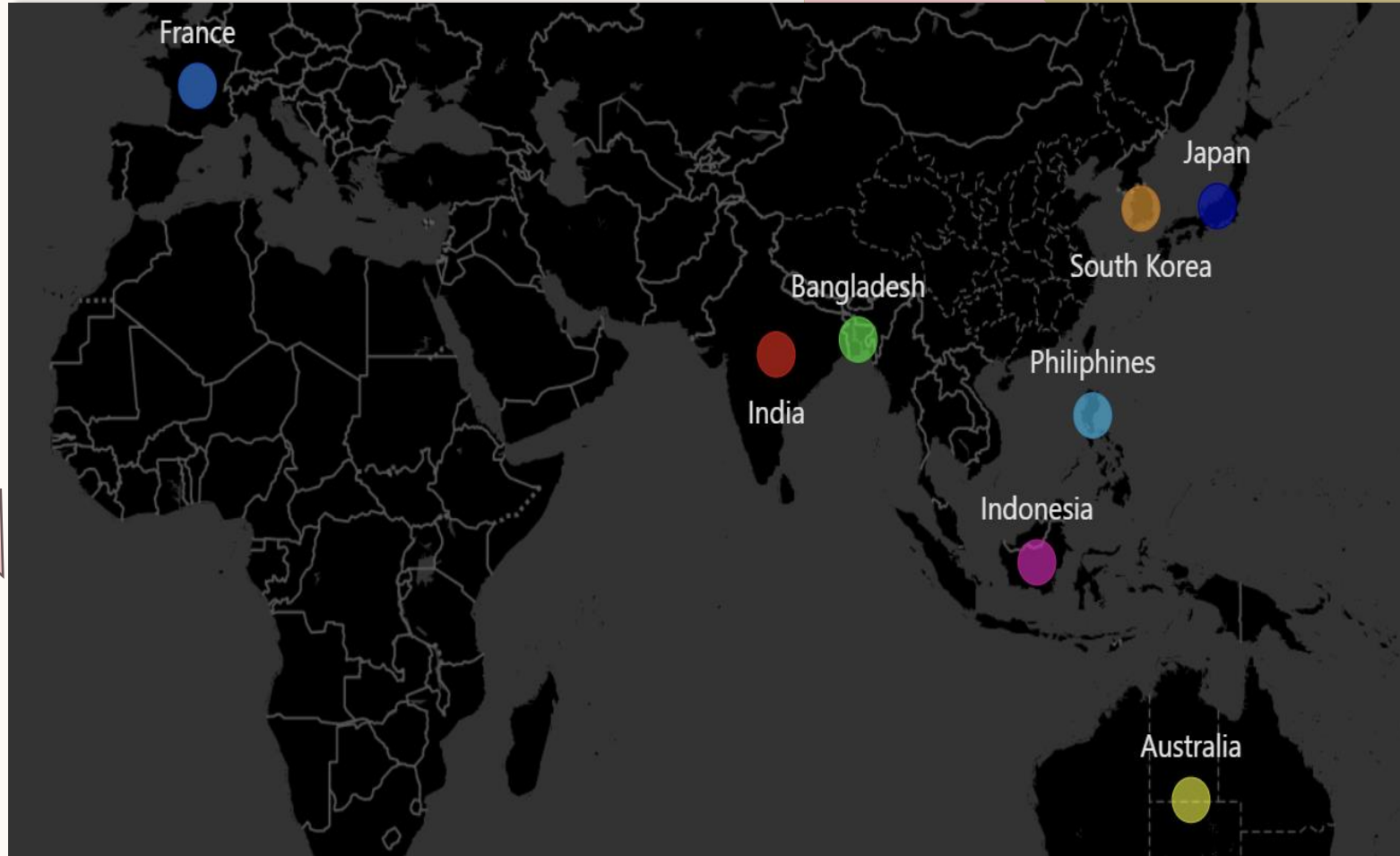
4. Data Model
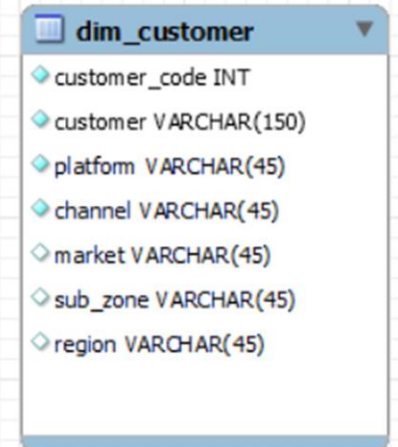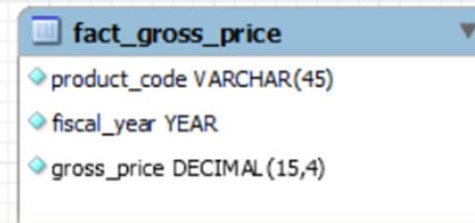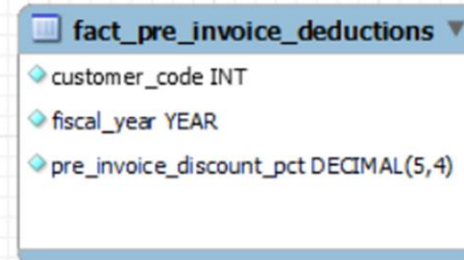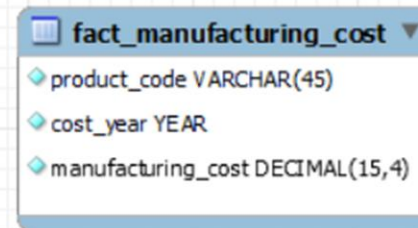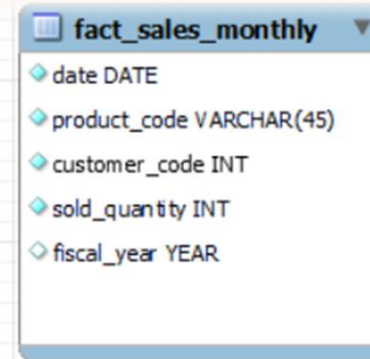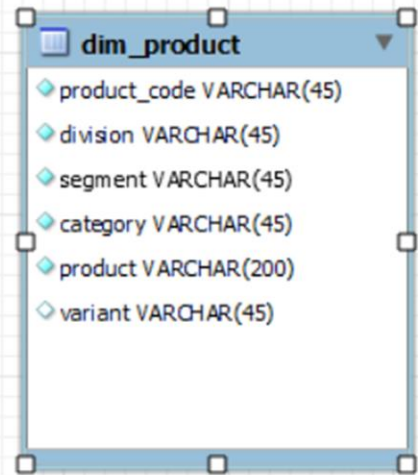
5. Ad-hoc Request - 1

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

Outcomes

"Atliq Exclusive" operates in the APAC region, covering key markets including **Australia**, **Bangladesh**, **India**, **Indonesia**, **Japan**, **New Zealand**, the **Philippines**, and **South Korea**.

5. Ad-hoc Request - 2

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)

Unique_Products_2020	Unique_Products_2021	Percentage_Chg
245	334	36.33
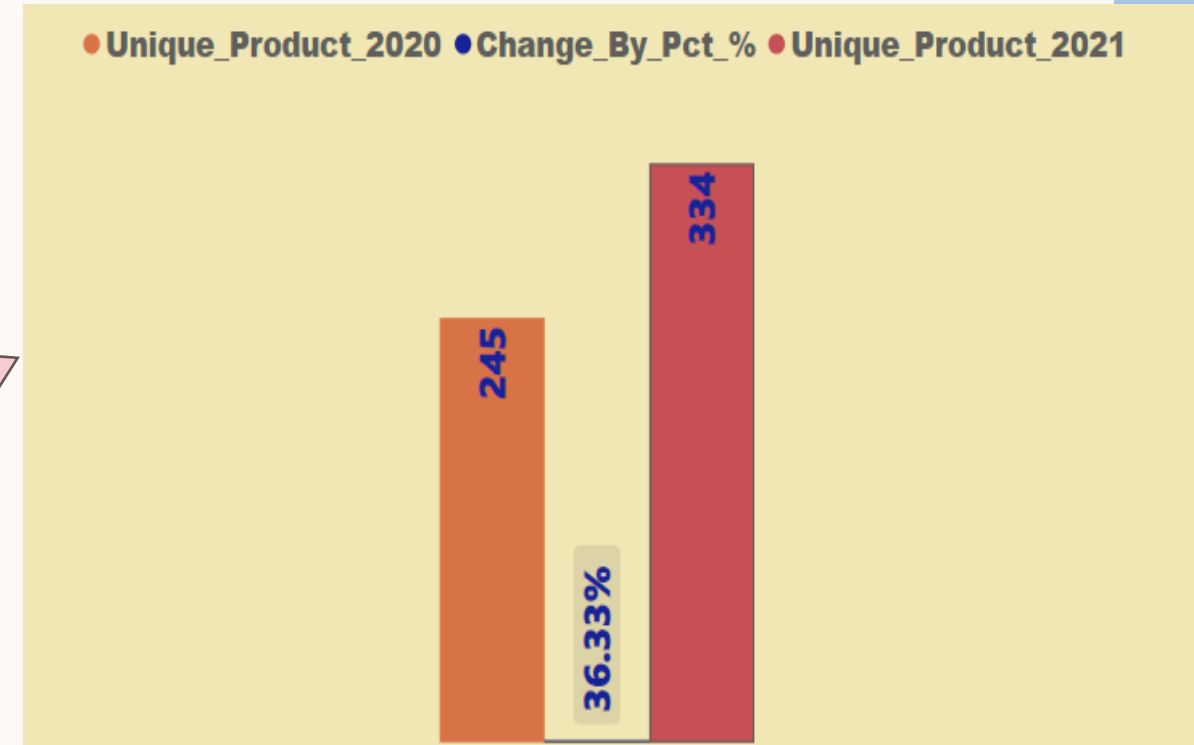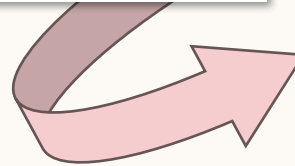
Outcome

The number increased by a significant **36.33%** between **2020** and **2021**.

5. Ad-hoc Request - 3

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 this fields (segment, product count)

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

Product_Count_By_Segment
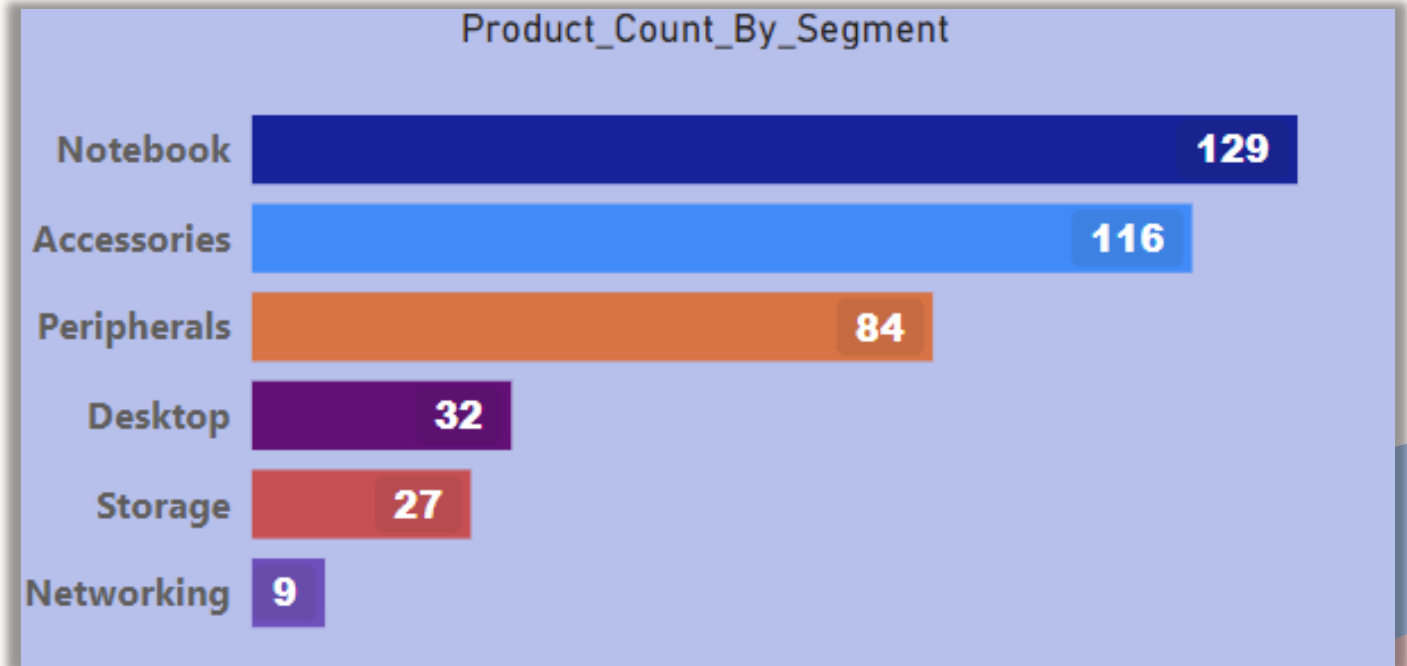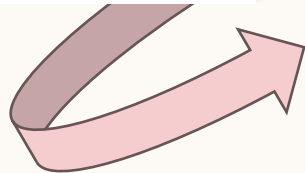
Outcome

The bar chart displays product counts across different segments. **Notebooks** and **accessories** have the highest counts, while **networking** products are the least represented.

5. Ad-hoc Request - 4

Q-4. 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
Notebook	112187	193825	81638
Accessories	112763	193598	80835
Peripherals	102878	141045	38167
Desktop	2026	30734	28708
Storage	22453	31977	9524
Networking	11216	16929	5713

Outcome

According to the clustered column charts, the **accessories segment** saw a significant **increase** in **unique products** in **2021** - a gain of **34 products** from the **previous year.**
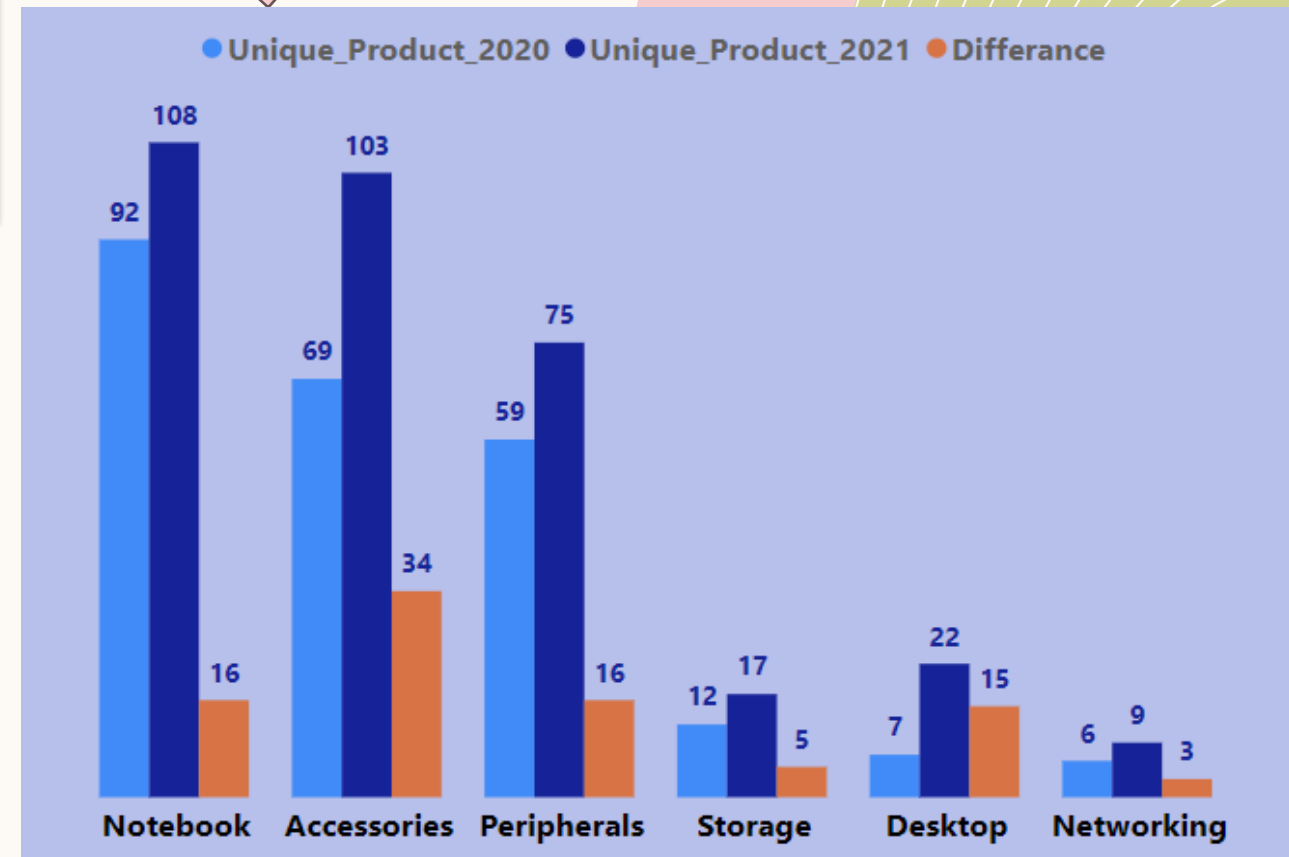
5. Ad-hoc Request - 5

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)

product_code	product	Manufacturing_Cost
A6120110206	AQ HOME Allin1 Gen 2	$240.54
A2118150101	AQ Master wired x1 Ms	$0.89

Max_Manufacturing_Cost

$240.54

AQ HOME Allin1 Gen 2

A6120110206

Min_Manufacturing_Cost

$0.89

AQ Master wired x1 Ms

A2118150101

Personal Desktop

Mouse

5. Ad-hoc Request - 6

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)

customer_code	customer	Average_Discount_Percentage
90002009	Flipkart	30.83%
90002006	Viveks	30.38%
90002003	Ezone	30.28%
90002002	Croma	30.25%
90002016	Amazon	29.33%

Outcome

In **2021**, the pre-invoice discount percentages of our top 5 results were almost equal, with **Flipkart** being the **highest-ranking** discount customer in the **Indian market** at **30.83%.**

Avg_Discount_By _Customer_Code & Customer
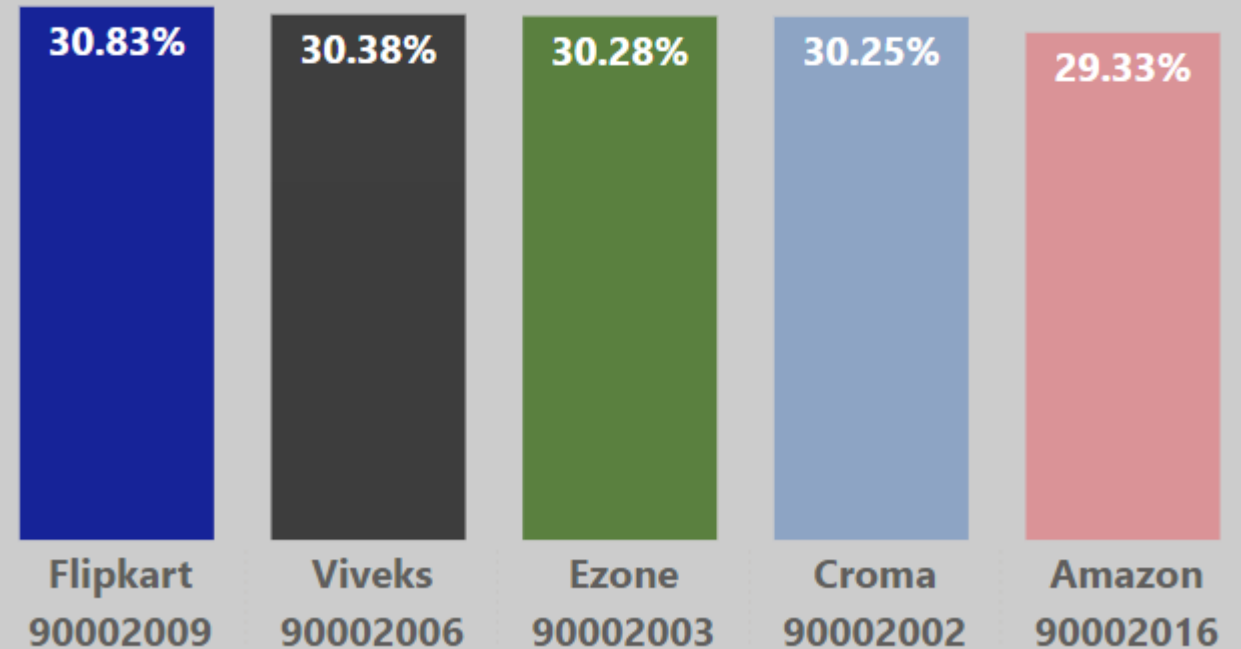
5. Ad-hoc Request - 7

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)

Outcome

Month_Name	Get_Year	gross_sales_monthly
September	2019	$4.50
October	2019	$5.14
November	2019	$7.52
December	2019	$4.83
January	2020	$4.74
February	2020	$4.00
March	2020	$0.38
April	2020	$0.40
May	2020	$0.78
June	2020	$1.70
July	2020	$2.55
August	2020	$2.79
September	2020	$12.35
October	2020	$13.22
November	2020	$20.46
December	2020	$12.94
January	2021	$12.40
February	2021	$10.13
March	2021	$12.14
April	2021	$7.31

A seasonal pattern in sales was evident, with peaks during the **holidays** & declines in **summer**. Sales **decreased** briefly in early **2020** due to the **pandemic** but **grew** steadily from **2019** to **2021**, with the **highest** peak in **2021**.
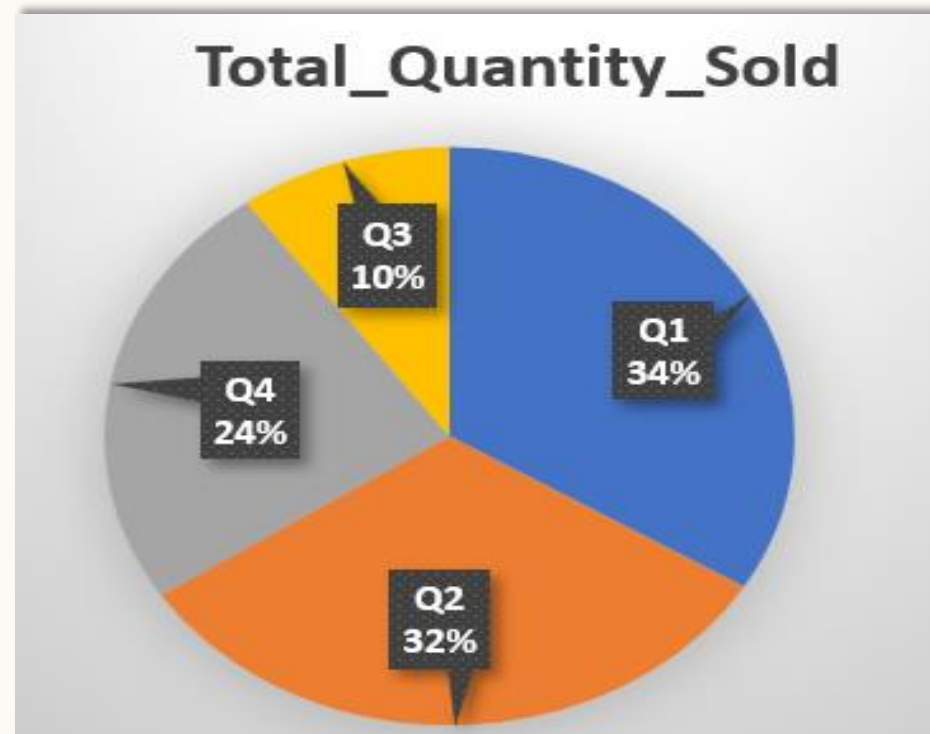

Gross_Sales_Amount_By_Year & Month
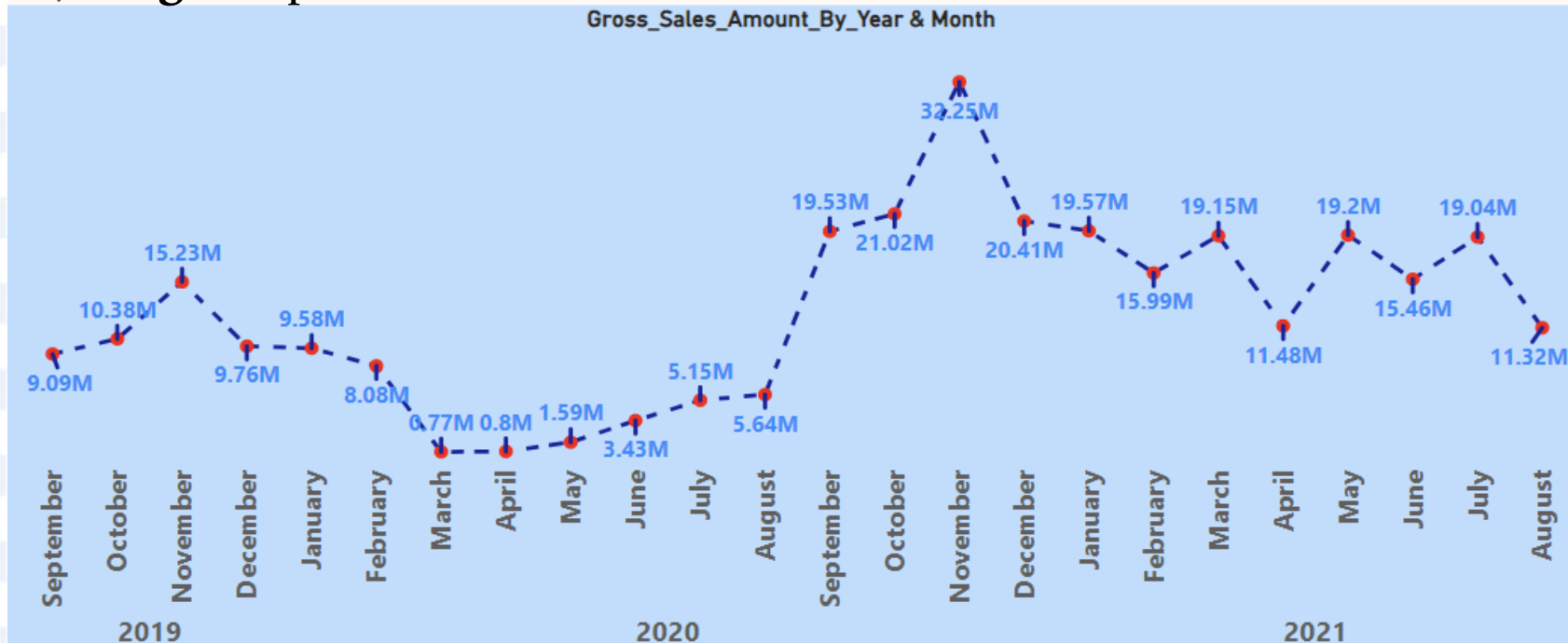
5. Ad-hoc Request - 8

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, total_sold_quantity)

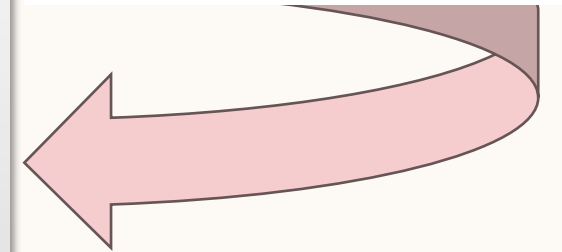| Quarters	Total_Quantity_Sold
▶ Q1	7005619
Q2	6649642
Q4	5042541
Q3	2075087

Outcome

According to the pie chart, sales are highest in **Q1** (34%), **Q2** (32%), **Q4** (24%), and **Q3** (10%).
This seasonal variation pattern requires more investigation and improved strategy.

Total_Quantity_Sold
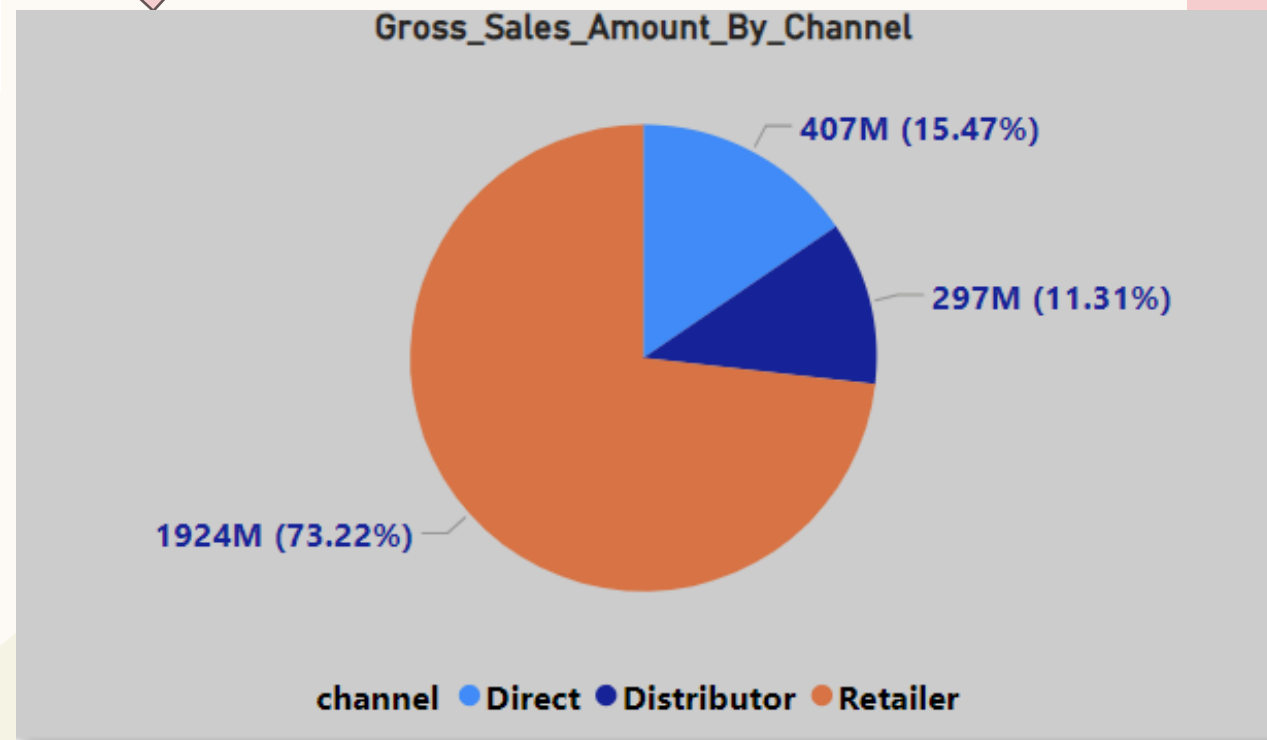
Q3 10%

Q1 34%

Q4 24%

Q2 32%

5. Ad-hoc Request - 9

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),

	channel	Gross_sales_in_mln	Percentage
▶	Retailer	1924.17	73.22
	Direct	406.69	15.47
	Distributor	297.18	11.31

Outcome

Retail dominates sales, accounting for **73.22%** of the total. **Direct** sales contribute **15.47%**, while **distributors** make up the remaining **11.31%**.

Gross_Sales_Amount_By_Channel

407M (15.47%)
297M (11.31%)
1924M (73.22%)

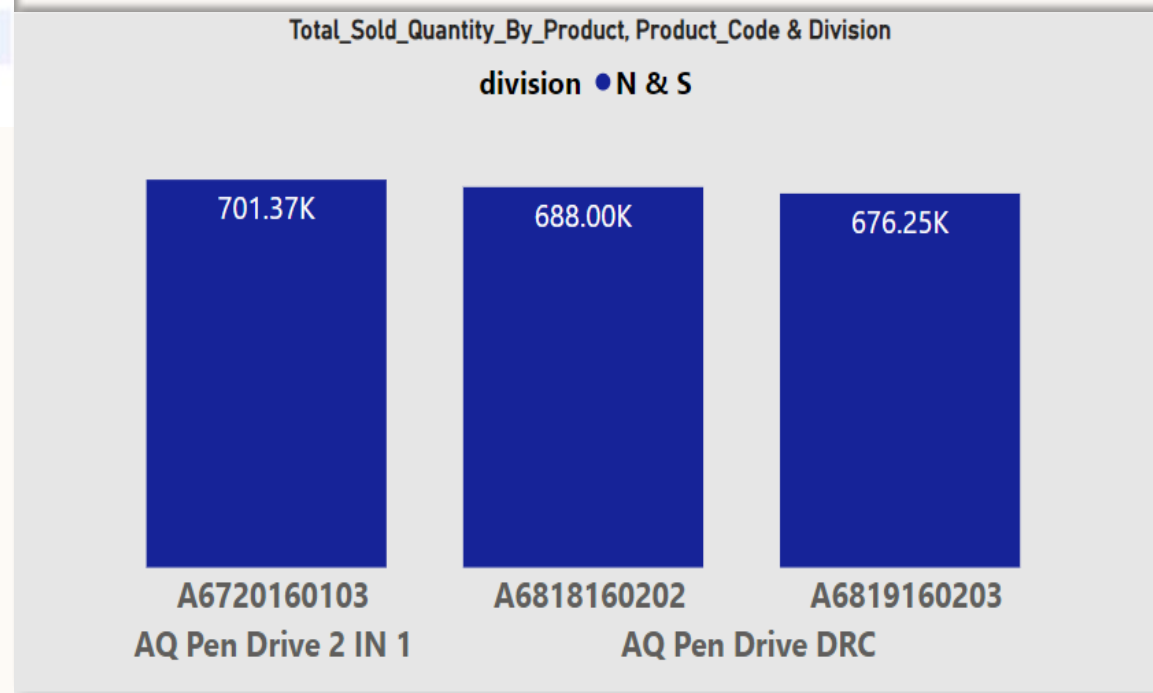channel ● Direct ● Distributor ● Retailer

5. Ad-hoc Request - 10

Q-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)

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
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

Outcome

AQ Pen Drive 2 IN 1 sold the most with **701.37K units**, followed by **AQ Pen Drive DRC** models with sales of **688.00K** and **676.25K** units respectively

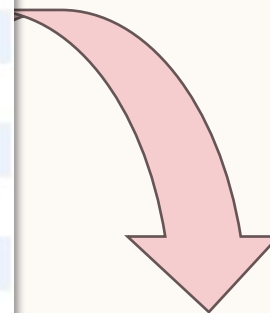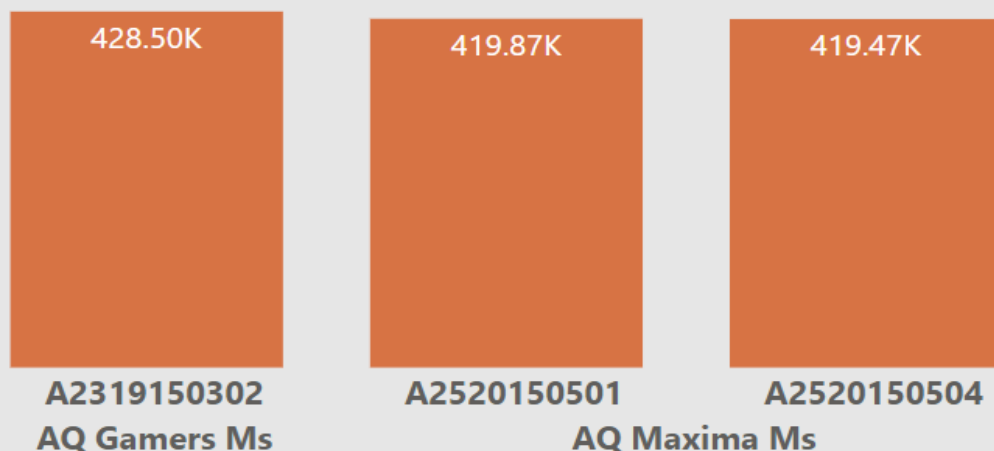Total_Sold_Quantity_By_Product, Product_Code & Division

5. Ad-hoc Request - 10

Q-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)

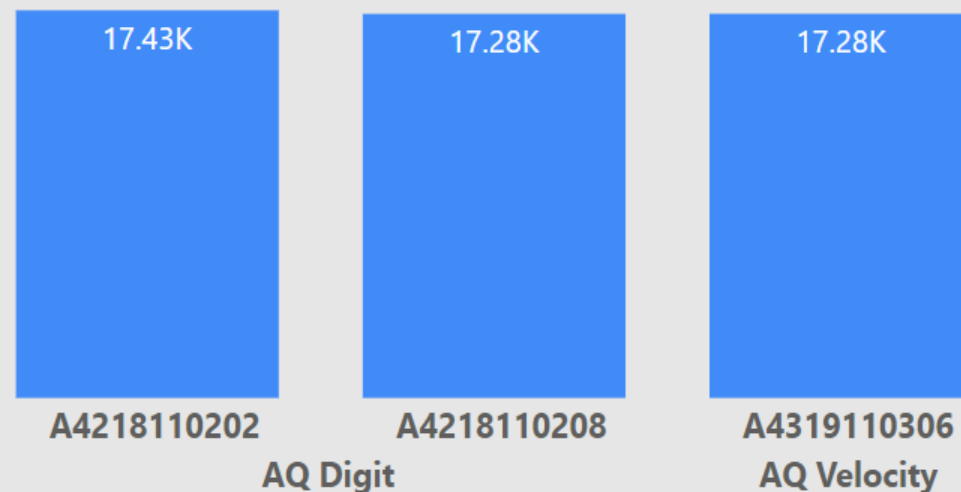
Total_Sold_Quantity_By_Product, Product_Code & Division

division ● P & A

Product AQ Gamers Ms is the top seller with **428.50K** units sold. **Products AQ Maxima Ms** & have slightly **lower sales** figures but are **comparable**. Overall, **AQ Gamers Ms** leads in sales within **Division P&A.**

AQ Digit sold best with **17.43K units**, followed by **AQ Velocity** and another **AQ Velocity** model with equal sales of **17.28K** units each.

Total_Sold_Quantity_By_Product, Product_Code & Division

division ● PC

6. Recommendations

1.**APAC Markets:**
➤ Implement localized marketing strategies.
Ex:- Create targeted ad campaigns for Japan focusing on tech-savvy consumers and for India emphasizing affordable pricing and wide availability.

2.**Unique Product Increase:**
➤ Focus on high-growth product lines.
Ex: Invest more in developing and marketing the accessories line, which saw significant growth.

3.**Product Counts by Segment:**
➤ Allocate more resources to notebooks and accessories.
Ex: Increase the marketing budget for notebook advertisements and expand the range of accessories offered.

4.**Increase in Unique Products:**
➤ Prioritize expanding the accessories segment.
Ex:- Launch new accessory products such as high-end gaming peripherals and eco-friendly laptop bags.

6. Recommendations

5.Manufacturing Costs:
➢ Improve cost efficiency for high-cost products.
Ex:- The high-cost desktop mouse to use cheaper materials without compromising quality.

6.Discount Percentages:
➢ Optimize discount strategies.
Ex: Offer a 20% discount on popular products instead of 30%, ensuring profitability while still attracting customers.

7.Monthly Sales:
➢ Optimize inventory and promotions based on seasonal patterns.
Ex:- Increase stock and run promotions for laptops during back-to-school season (August-September).

8.Quarterly Sales:
➢ Implement targeted initiatives during Q1 and Q2.
Ex:- Launch a "New Year, New Tech" sale in January and a "Spring Refresh" promotion in April to boost sales.

6. Recommendations

9.Channel Contribution
➢ Strengthen the retail channel.
Ex: Enhance in-store displays and provide special retail-exclusive deals to attract more customers to physical stores.

10.Top Products:
➢ Aggressively market top-selling products.
Ex: Run a social media campaign highlighting the AQ Pen Drive 2 IN 1 as a must-have tech accessory, leveraging its high sales performance.

THANK YOU☺

 ShivamRajput22/Ad-Hoc-Analysis

 Shivam Rajput | LinkedIn