



Atliq Hardware's

# Consumer Goods Ad-hoc Insights

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SQL Project Challenge





# Agenda

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results, visualizations and Insights

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# About Atliq

## Our Company

Atliq Hardware's(imaginary company)  
-One of the leading computer  
hardware producers in India.

The management noticed  
that they do not get enough  
insights to make quick and  
smart data-informed  
decisions.

## Background

## Problem

There are 10 ad-hoc requests for  
which the company needs  
insights.

Run a SQL query to answer  
these requests. Convert it into  
visualizations and present the  
Insights to the top level  
management.

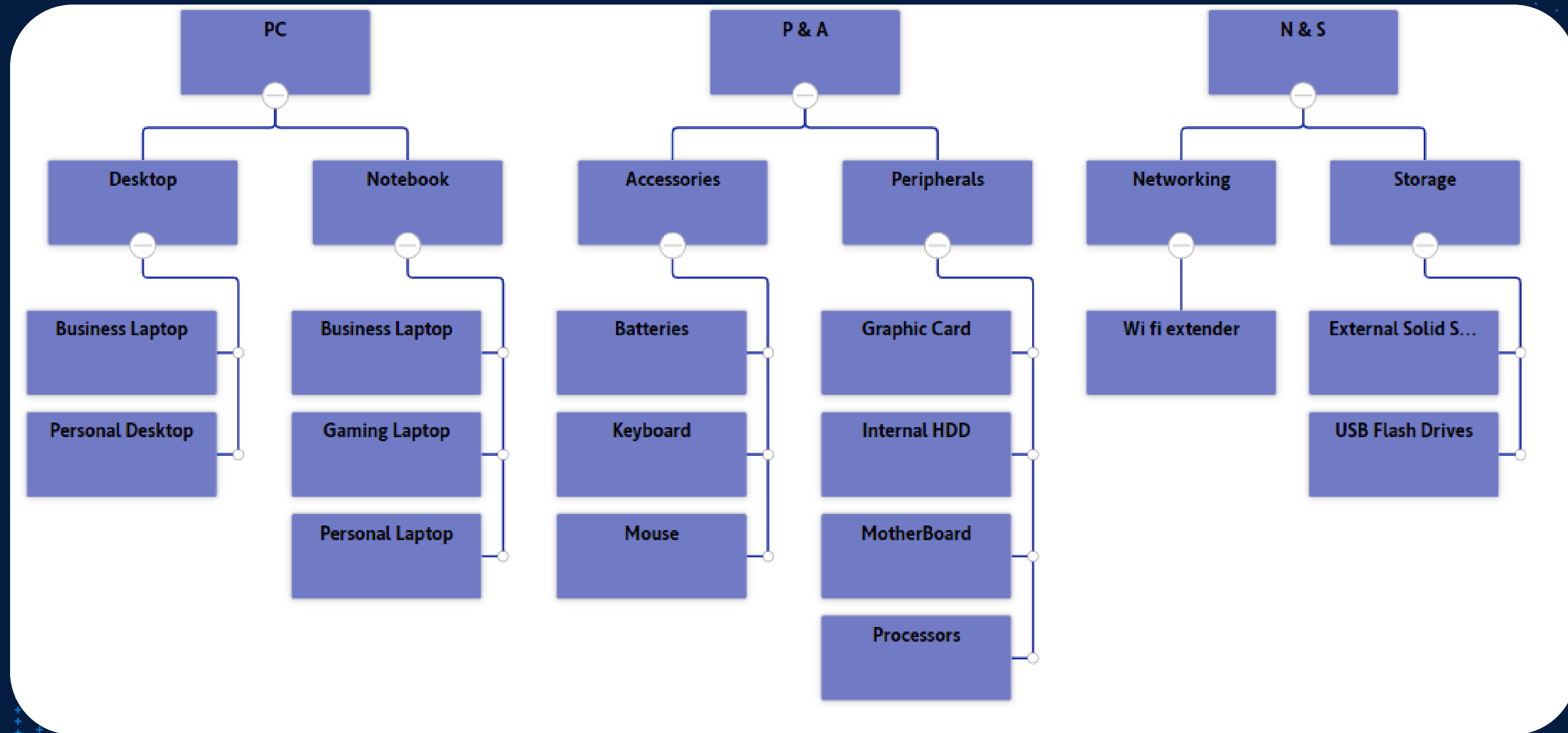
## Approach

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# Atliq Market



# Atliq Product lines





## 3

# Input Data

The input data includes sales information for fiscal years 2020 and 2021, along with various other dimension tables such as customer details, product details, and more.

dim_product
product_code VARCHAR(45)
division VARCHAR(45)
segment VARCHAR(45)
category VARCHAR(45)
product VARCHAR(200)
variant VARCHAR(45)

fact_gross_price
product_code VARCHAR(45)
fiscal_year YEAR
gross_price DECIMAL(15,4)

fact_pre_invoice_deducti...
customer_code INT
fiscal_year YEAR
pre_invoice_discount_pct DECIMAL(5,4)

fact_sales_monthly
date DATE
product_code VARCHAR(45)
customer_code INT
sold_quantity INT
fiscal_year YEAR

fact_manufacturing_cost
product_code VARCHAR(45)
cost_year YEAR
manufacturing_cost DECIMAL(15,4)


dim_customer
customer_code INT
customer VARCHAR(150)
platform VARCHAR(45)
channel VARCHAR(45)
market VARCHAR(45)
sub_zone VARCHAR(45)
region VARCHAR(45)

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Ad-hoc requests along with the queried results, visualizations and Insights.

Request 1:

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



	market	region
▶	India	APAC
	Indonesia	APAC
	Japan	APAC
	Philippines	APAC
	South Korea	APAC
	Australia	APAC
	Newzealand	APAC
	Bangladesh	APAC

# Insights

In the APAC region, Atliq Exclusive store has successfully expanded its presence across 8 key markets.






## Request 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

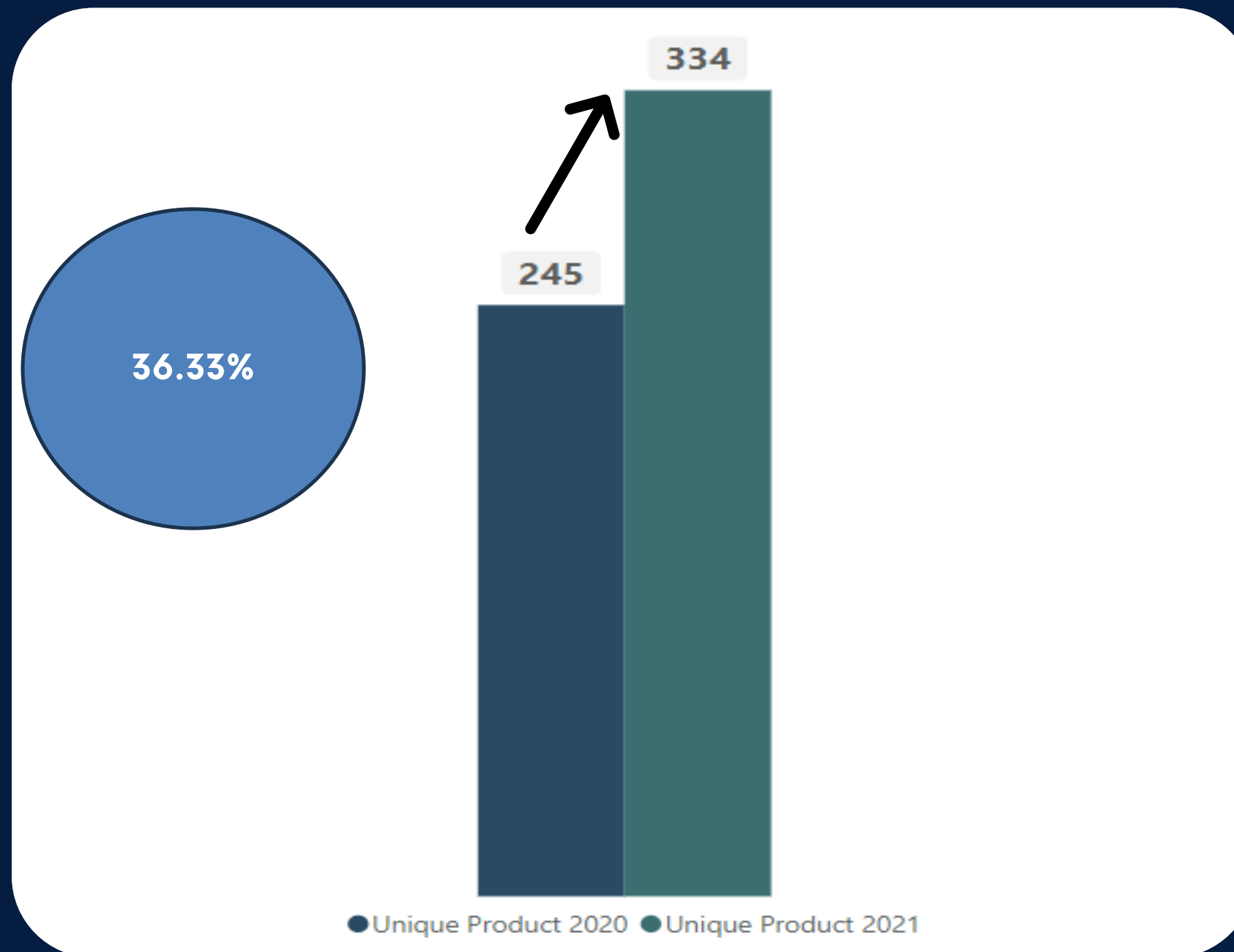


	unique_products_2020	unique_products_2021	percentage_chg
▶	245	334	36.33



# Insights


It's a positive indicator that our continuous innovation is driving new product introductions. In FY 2020, we offered 245 products, and by FY 2021, that number grew by 36% to a total of 334 products.



### Request 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

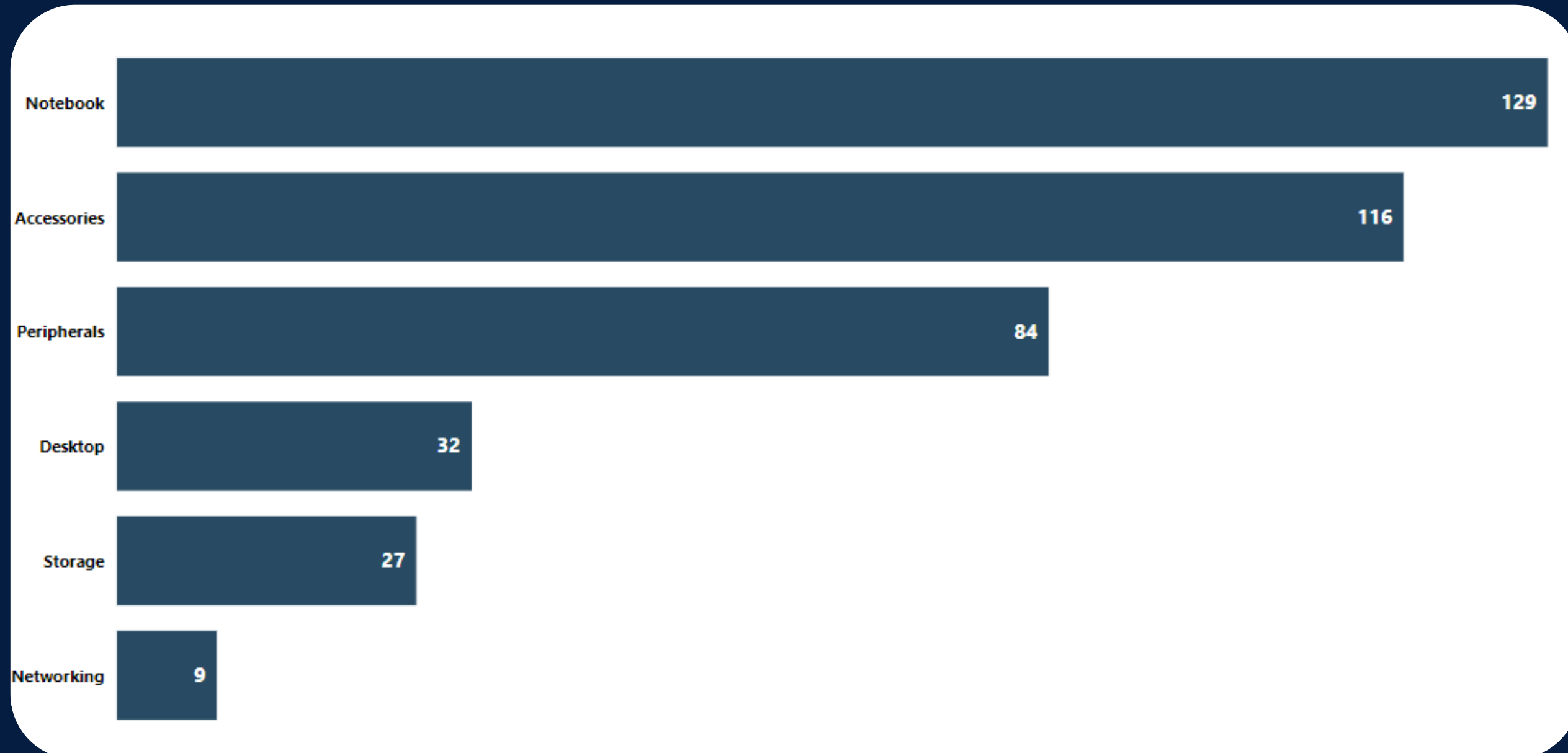


	segment	product_count
▶	Notebook	129
	Accessories	116
	Peripherals	84
	Desktop	32
	Storage	27
	Networking	9



# Insights

**Segments:** Notebooks, Accessories, and Peripherals are showing significant manufacturing growth as compared to Desktops, Storage, and Networking. There is a need of diversification in production for Desktop, Networking and Storage segments.






## Request 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

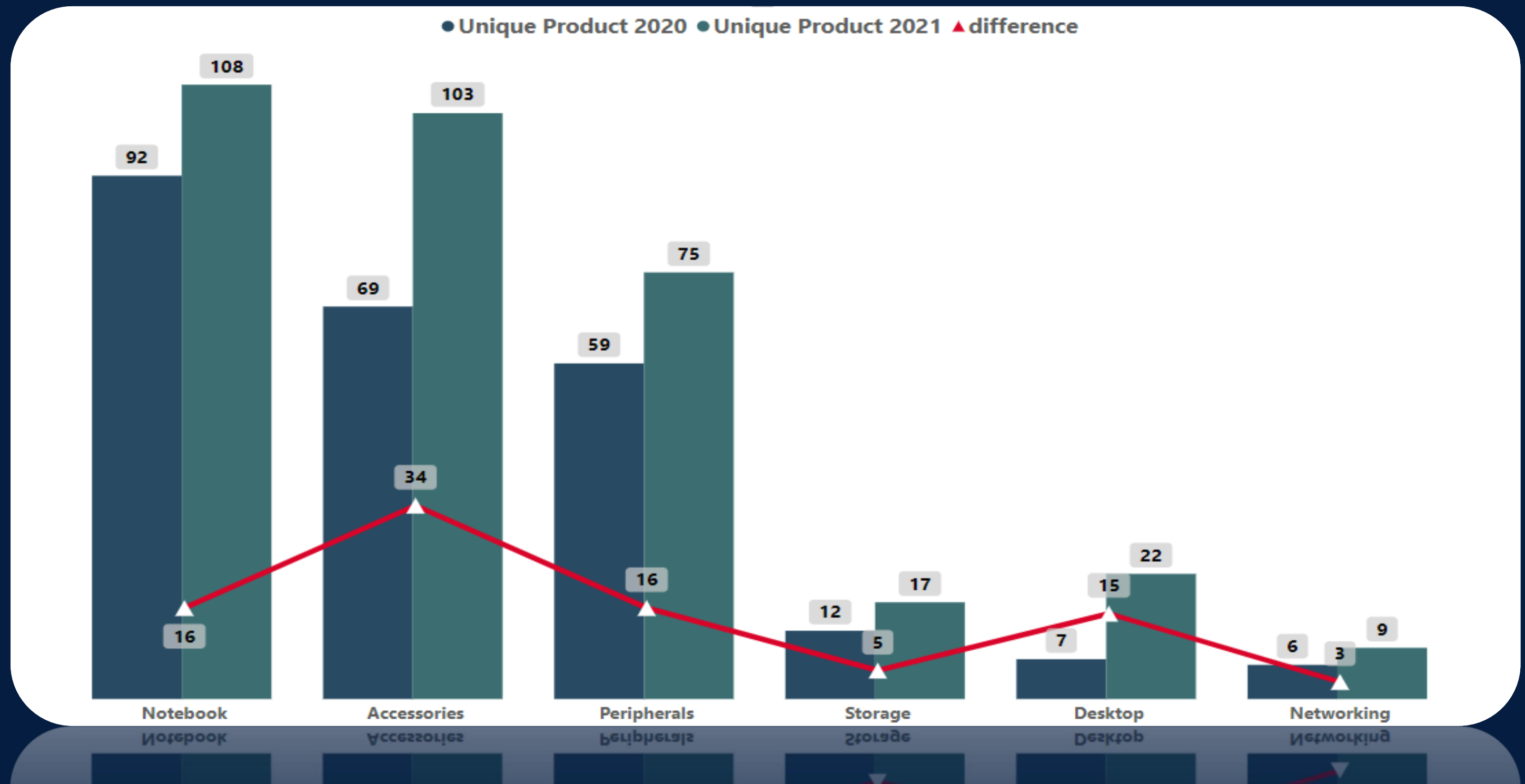


	segment	product_count_2020	product_count_2021	difference
▶	Accessories	69	103	34
	Notebook	92	108	16
	Peripherals	59	75	16
	Desktop	7	22	15
	Storage	12	17	5
	Networking	6	9	3

# Insights

Accessories had the largest increase in production. Introduced 34 new products to the market.

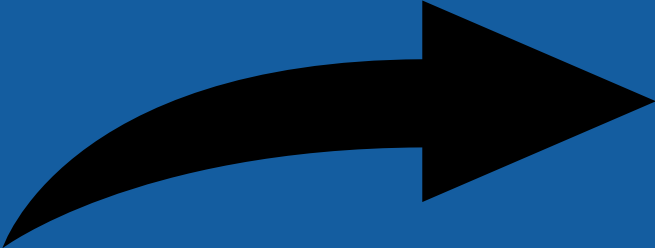
Storage and networking are experiencing slower production growth than other segments.



Request 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	category
▶	A6120110206	AQ HOME Allin1 Gen 2(Plus 3)	240.5364	Personal Desktop
	A2118150101	AQ Master wired x1 Ms(Standard 1)	0.8920	Mouse



# Insights

Which of our products has the highest manufacturing cost?



\$240.54

AQ HOME Allin1 Gen 2 (Plus 3)  
Personal Desktop

Which of our products has the lowest manufacturing cost?



\$0.89

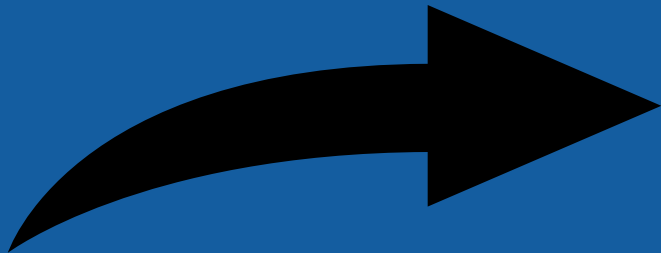
AQ HOME Allin1 Gen 2 (Plus 3)  
Mouse



## 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. The final output contains these fields:**

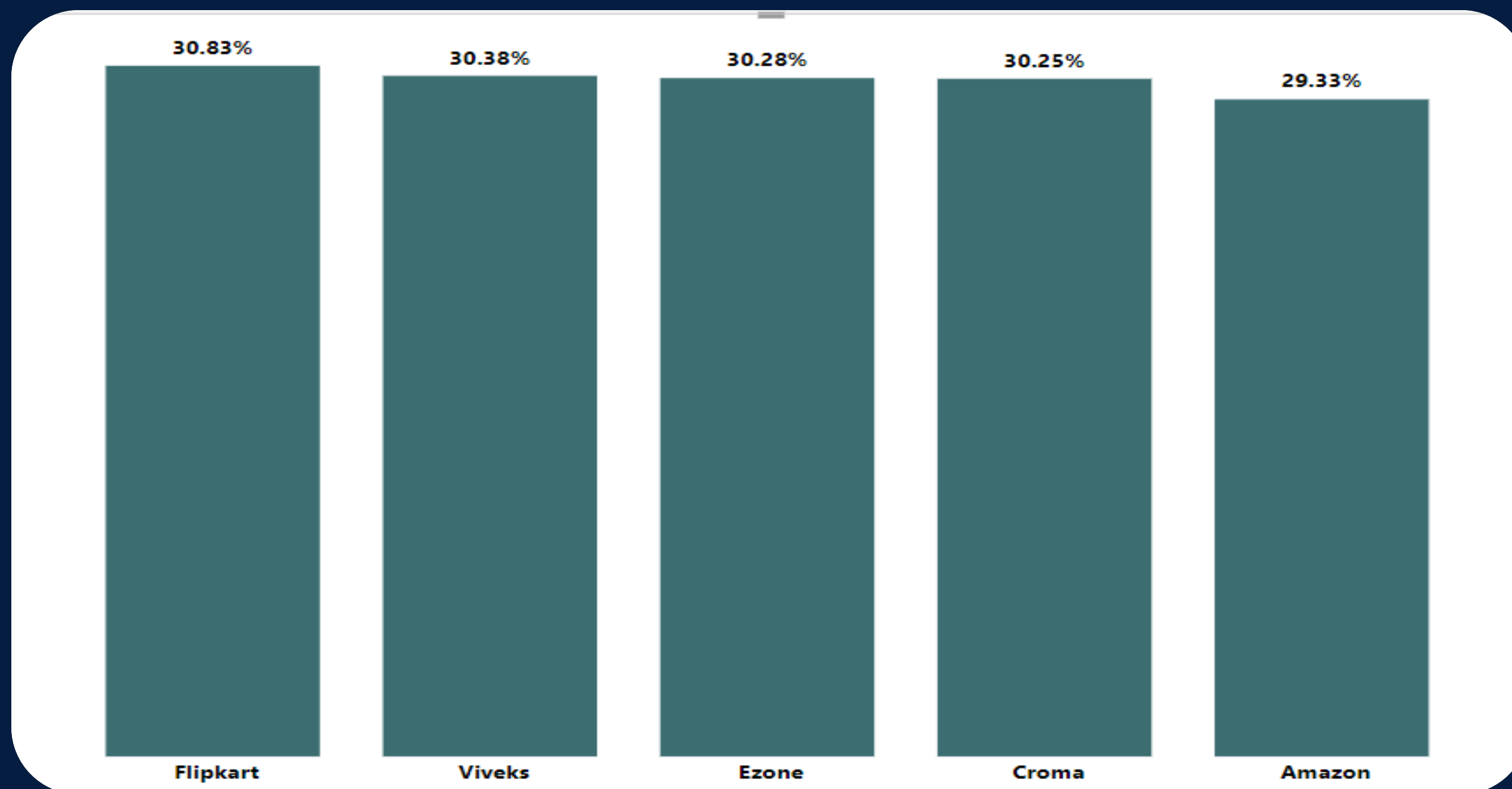
customer\_code  
customer  
average\_discount\_percentage

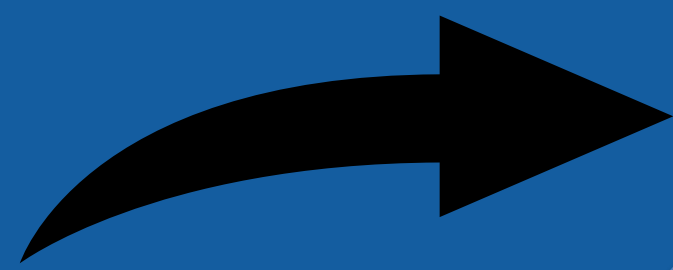


	customer_code	customer	average_discount_price
▶	90002009	Flipkart	0.3083
	90002006	Viveks	0.3038
	90002003	Ezone	0.3028
	90002002	Croma	0.3025
	90002016	Amazon	0.2933

# Insights

In 2021, we offered nearly equal pre-invoice discount percentages to each of our top 5 customers, given that Flipkart is the most discounted customer in the Indian market, which equals 30.83%.





Request 7:

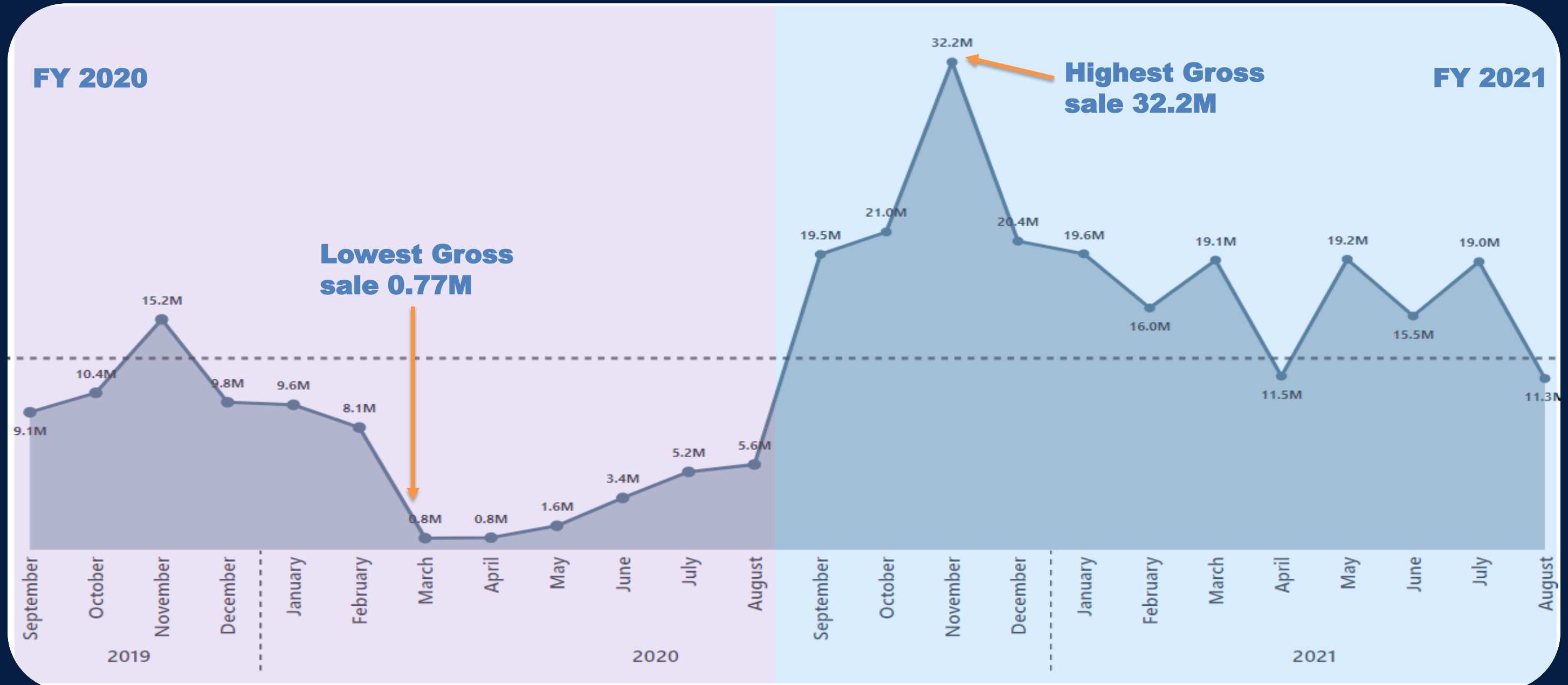
Get the complete report of the Gross sales amount for the customer “Atliq Exclusive” for each month . This analysis helps to get an idea of low and high-performing months and take strategic decisions. The final report contains these columns:

- Month
- Year
- Gross sales Amount

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

# Insights

For AtliqExclusive, **November 2020** marked the **highest sales**, and **March 2020** marked the **lowest gross sales**. It's very evident that the lower sales between **March and August** are because of **COVID-19**. However, it's a very good sign that the **sales increased quickly after August** and reached the highest level since the last two years in November.

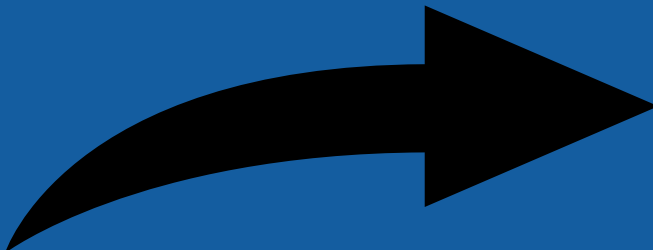




### Request 8:

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

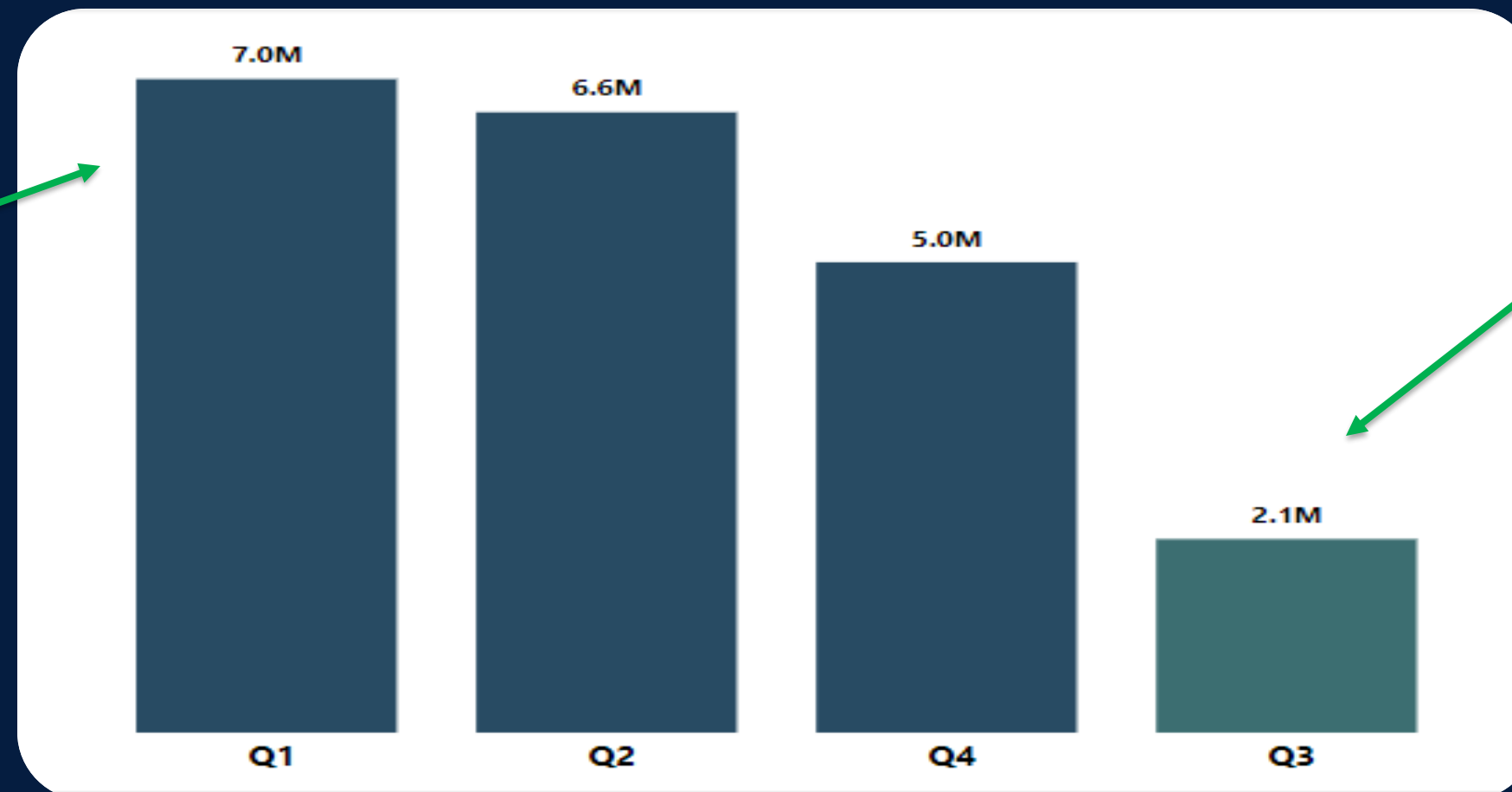


	quarter	total_sold_quantity_in_millions
▶	Q1	7.01
	Q2	6.65
	Q4	5.04
	Q3	2.08

## Insights

This further supports our earlier insight regarding the impact of **COVID-19** on our sales. In **Q3** of **FY 2020**, which includes **March, April, and May**—when the pandemic was at its peak—our sales dropped to **2.1 million units**. However, we began to recover quickly, even as the pandemic persisted. This early rebound in **Q4** is likely due to the increased demand for hardware such as **desktops and notebooks**, as most students began or continued their online coursework during this period, driving a surge in demand for **computer accessories**.

Quarter 1 had the highest total sales volume.

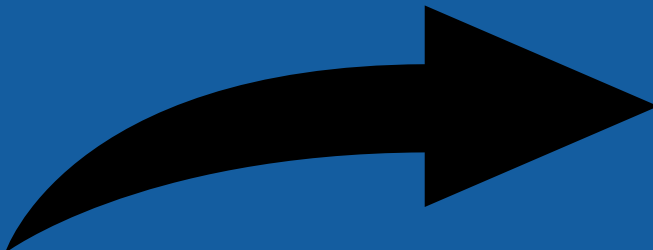


Quarter 3 had the lowest total sales volume.

### Request 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:**

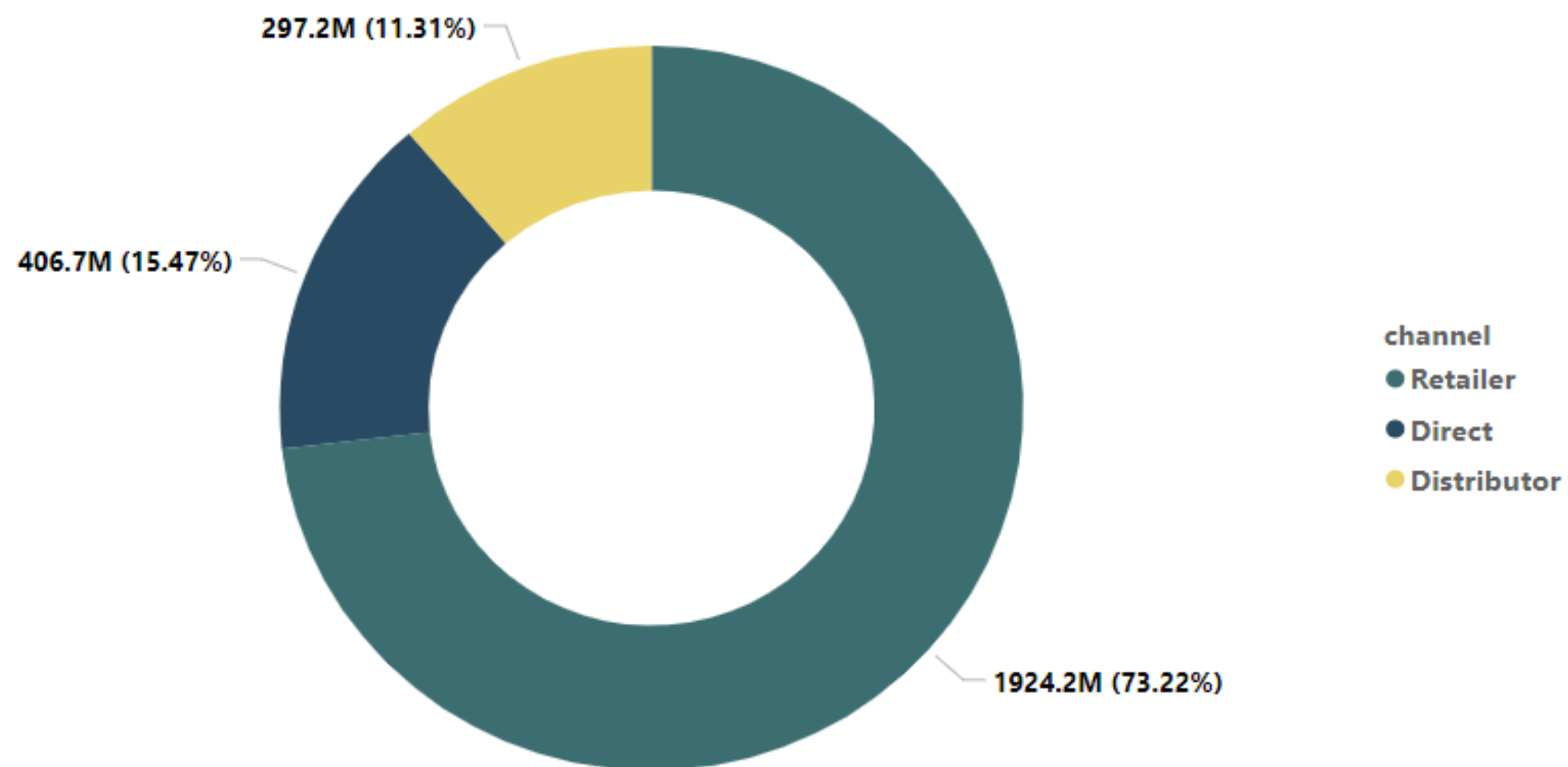
channel  
gross\_sales\_mln  
percentage



	channel	gross_sales	percentage
▶	Retailer	1924.17 M	73.22
	Direct	406.69 M	15.47
	Distributor	297.18 M	11.31

## Insights

The majority of our sales, accounting for 75% of the total, were made through retailers. Only a small percentage occurred through direct and distributor channels.





## Request 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:**

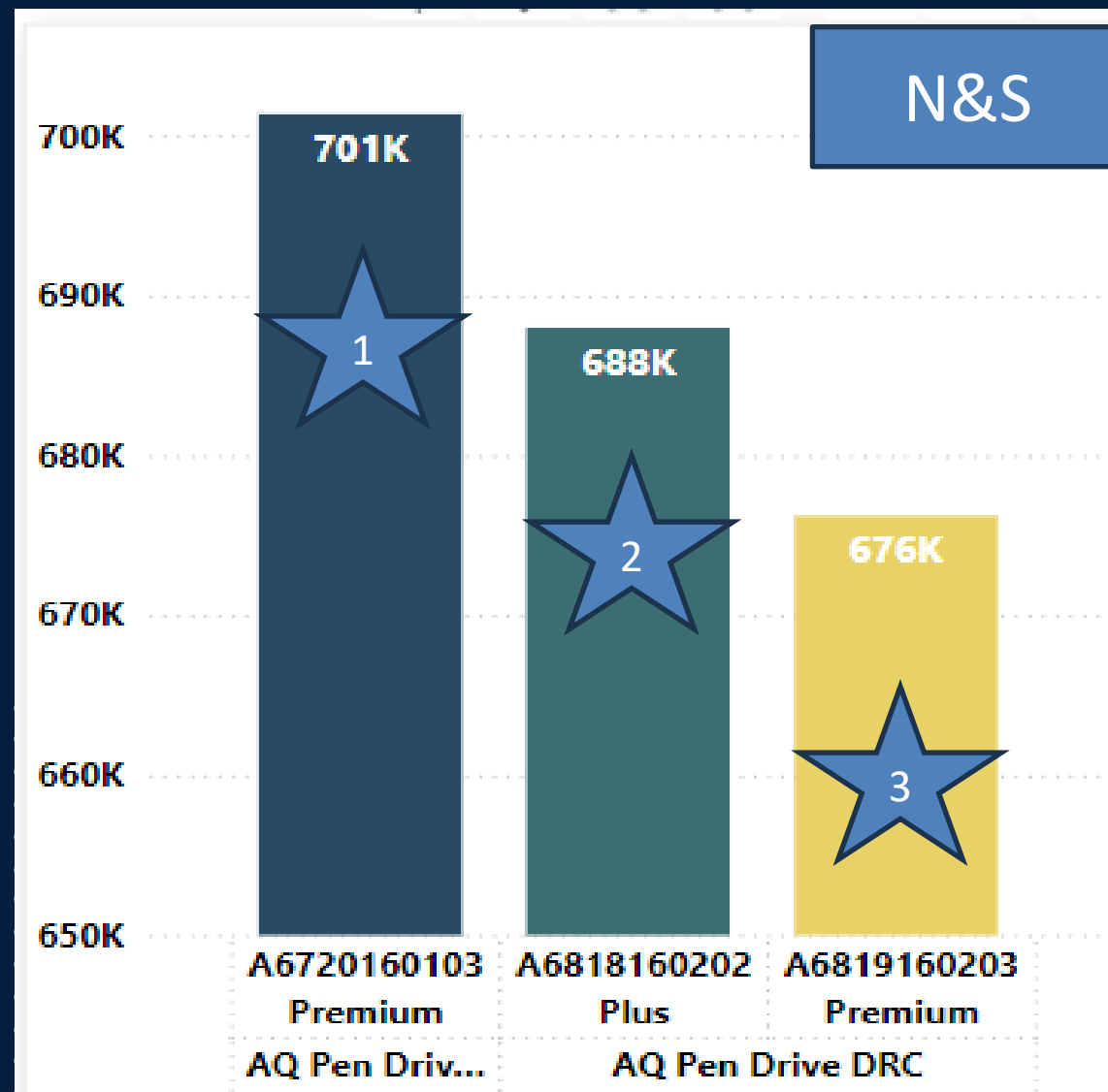
division product\_code  
Product  
total\_sold\_quantity  
rank\_order



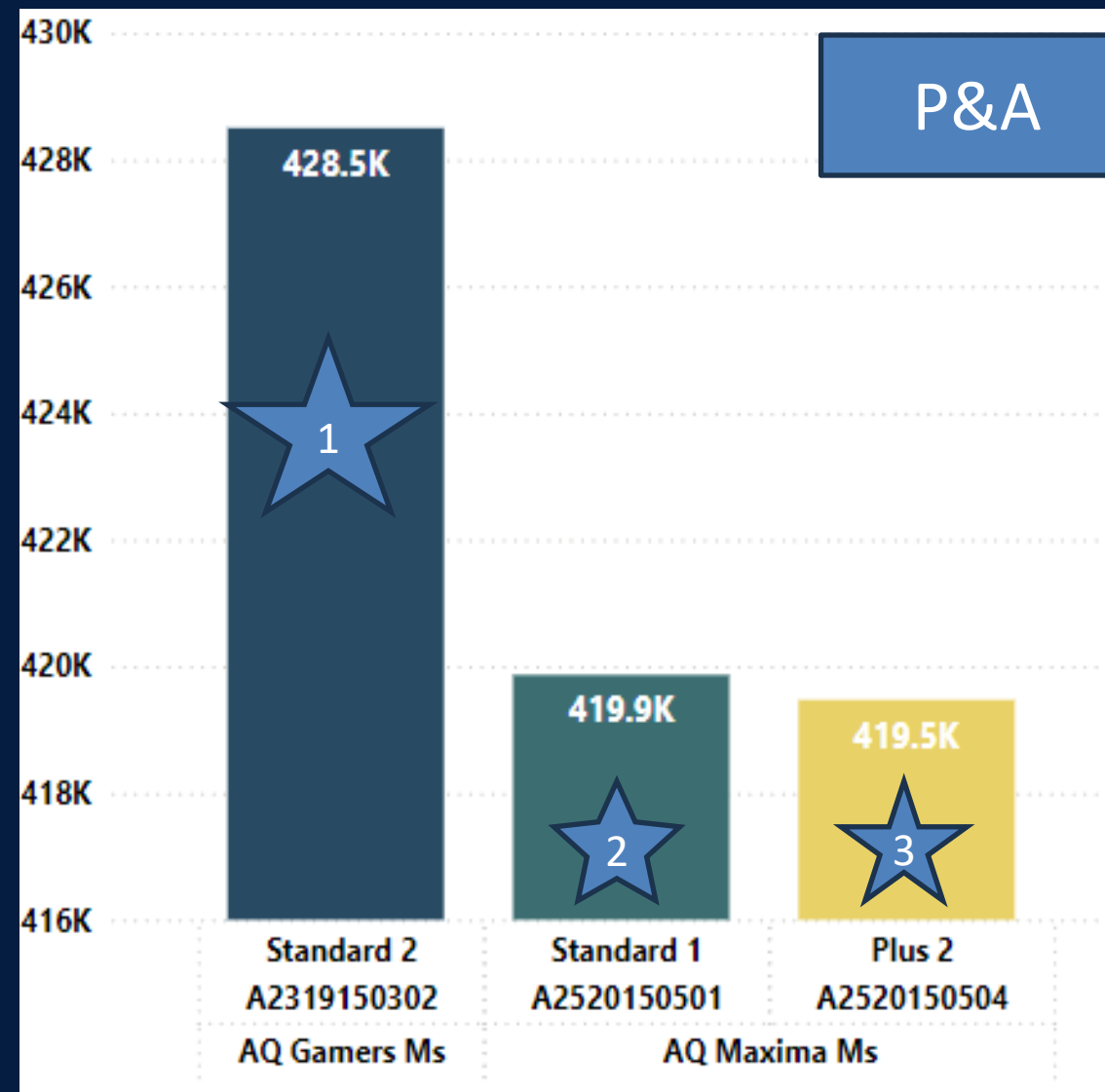
	division	product_code	product_variant	total_sold_quantity	rank_order
▶	N & S	A6720160103	AQ Pen Drive 2 IN 1 (Premium)	701373	1
	N & S	A6818160202	AQ Pen Drive DRC (Plus)	688003	2
	N & S	A6819160203	AQ Pen Drive DRC (Premium)	676245	3
	P & A	A2319150302	AQ Gamers Ms (Standard 2)	428498	1
	P & A	A2520150501	AQ Maxima Ms (Standard 1)	419865	2
	P & A	A2520150504	AQ Maxima Ms (Plus 2)	419471	3
	PC	A4218110202	AQ Digit (Standard Blue)	17434	1
	PC	A4319110306	AQ Velocity (Plus Red)	17280	2
	PC	A4218110208	AQ Digit (Premium Misty Green)	17275	3

# Insights

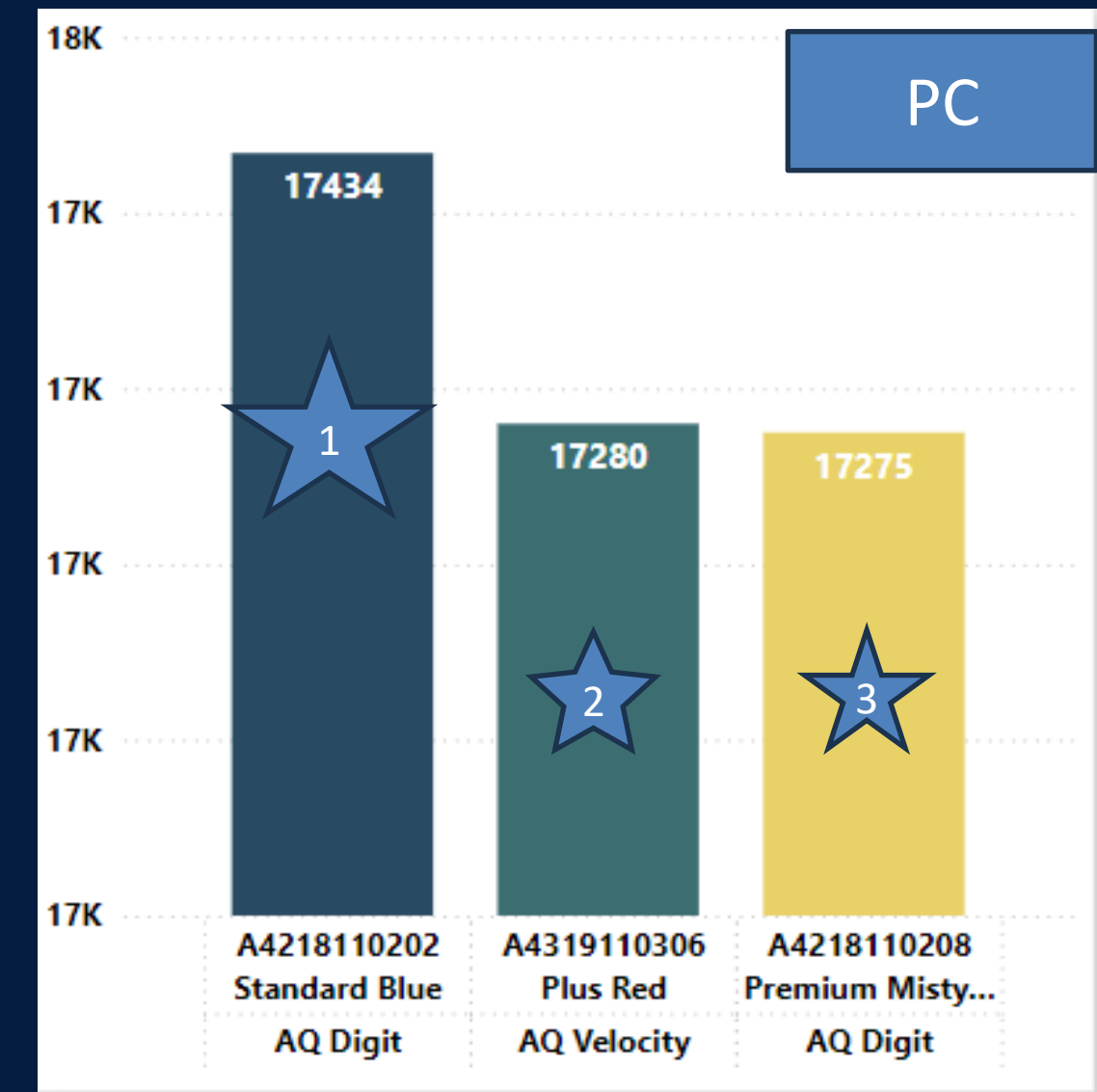
The top three selling products in **N&S** were pen drives, with sales reaching approximately **700,000** units.



The top three selling products in **P&A** were mouse, with sales reaching approximately **400,000** units.



The top three selling products in **PC** were personal laptops, with sales totaling around **17,000** units.





**Thank's For  
Watching.**

