



SQL PROJECT



Consumer Goods Ad-Hoc Insights

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AGENDA

1. Introduction
2. Methodology
3. Insights
4. Conclusion

INTRODUCTION

- Atliq Hardware (imaginary company) is one of the leading computer hardware producers in India and well expanded in other countries too.
- The management noticed that they do not get enough insights to make quick and smart data-informed decisions.
- They want to expand their data analytics team by adding several junior data analysts.
- Tony Sharma, their data analytics director wanted to hire someone who is good at both tech and soft skills.
- He decided to conduct a SQL challenge which will help him understand both the skills.
- They gave 10 Ad-hoc requests to be fulfilled by the candidate.

CLIENT DETAILS

AtliQ Hardware is a computer hardware producer.

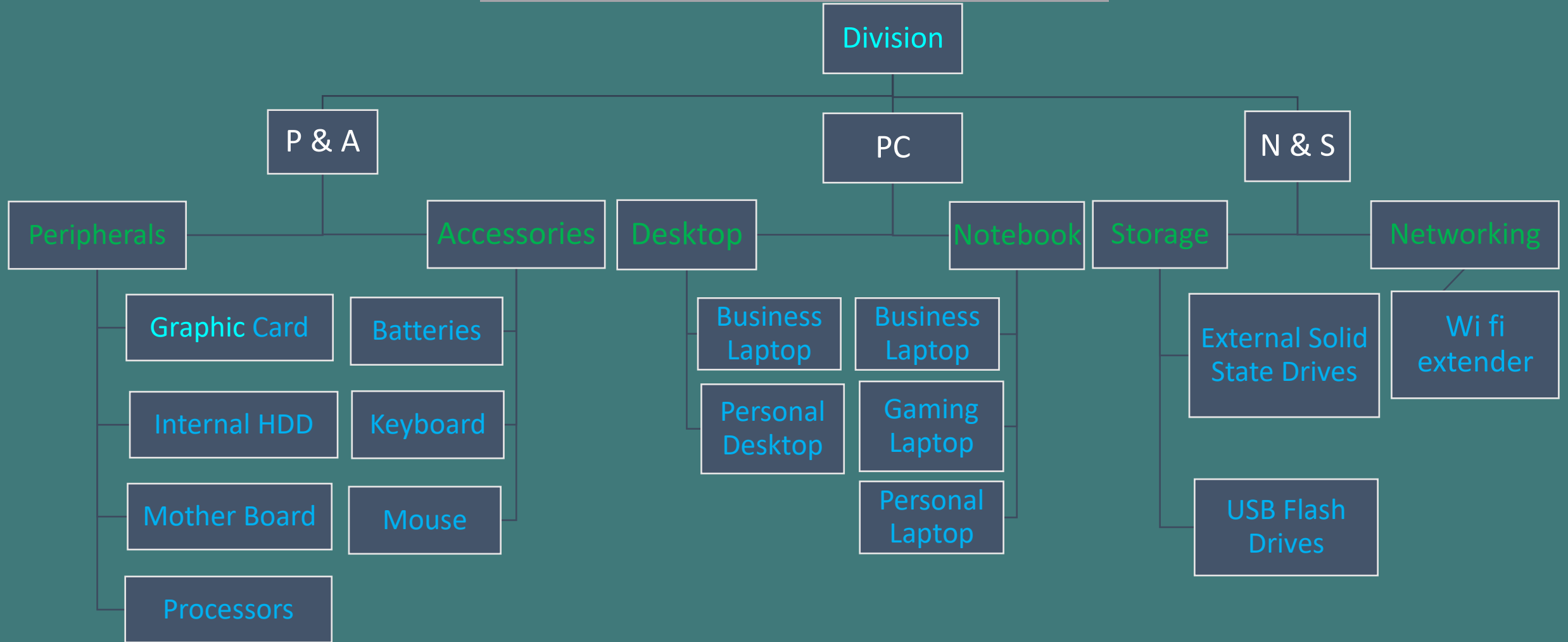
AtliQ's fiscal year

1. September 2019 — August 2020
FY 2020

2. September 2020 - August 2021
FY 2021

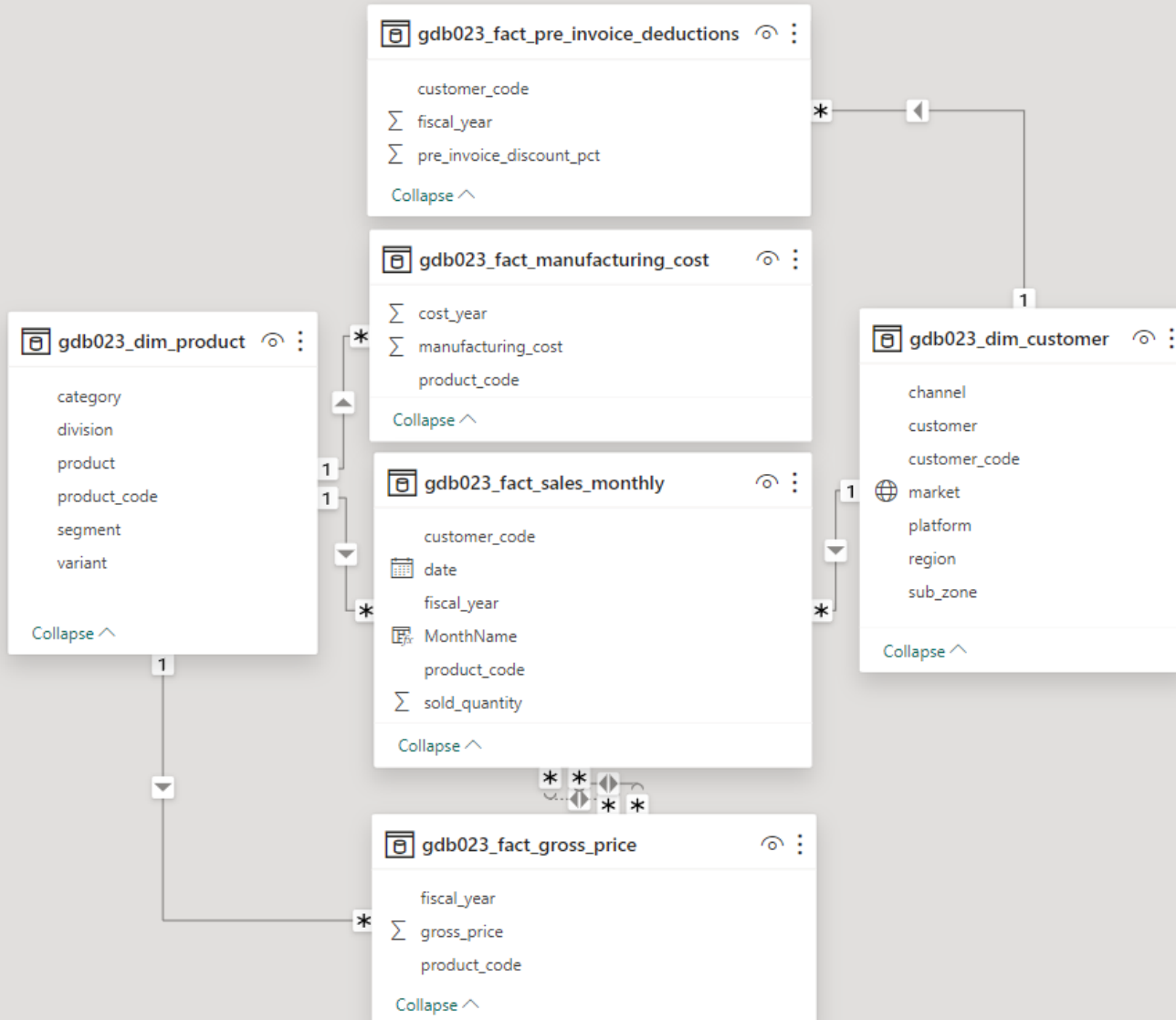


PRODUCT DETAILS



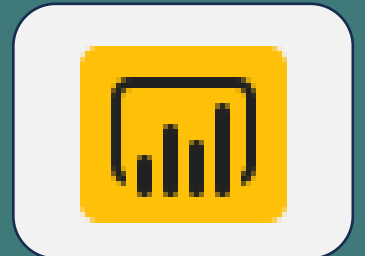
"P & A" (Peripherals and Accessories), "N & S" (Network and Storage) and "PC" (Personal Computer).

DATA OVERVIEW



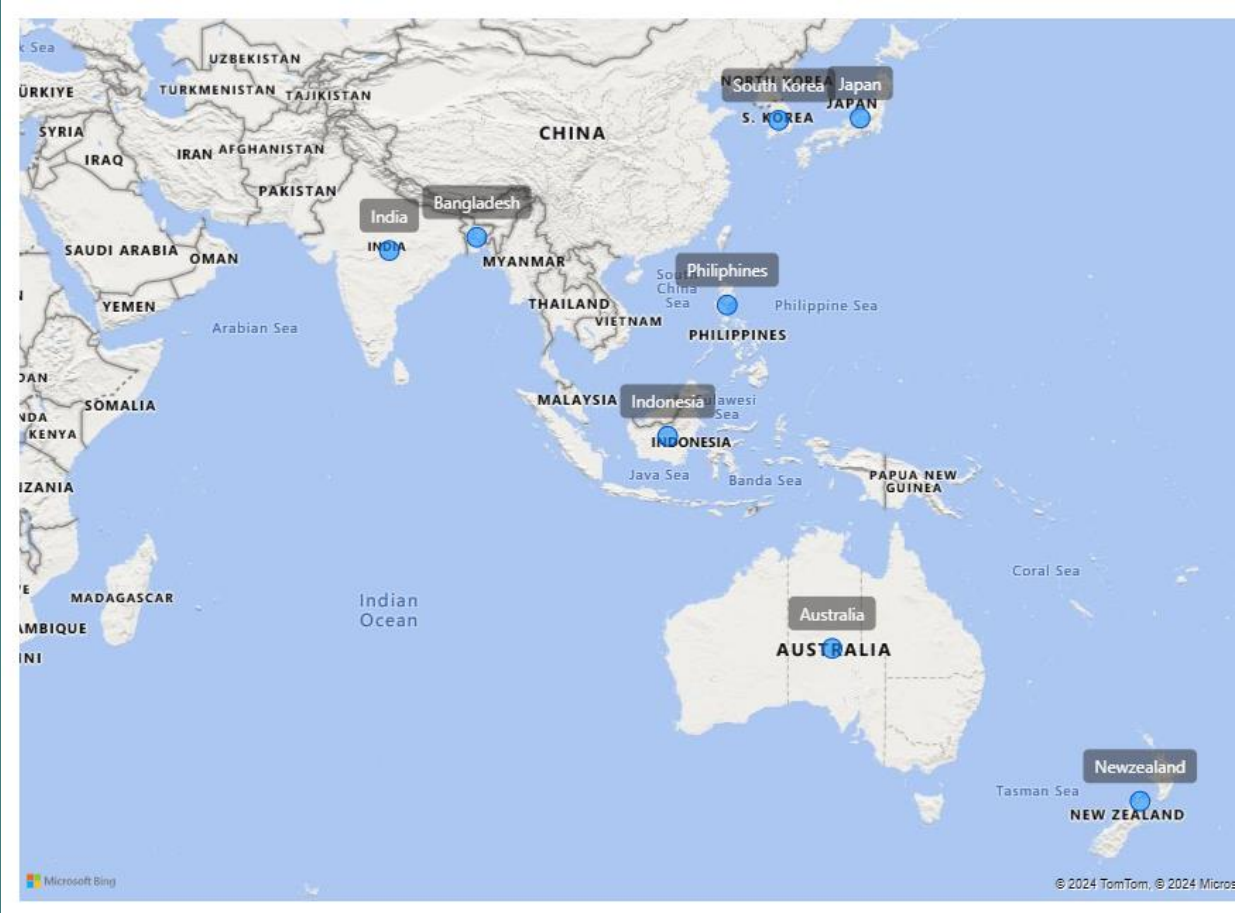
METHODOLOGY

Ad-hoc Requests



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

	market
▶	Australia
	Bangladesh
	India
	Indonesia
	Japan
	Newzealand
	Philiphines
	South Korea

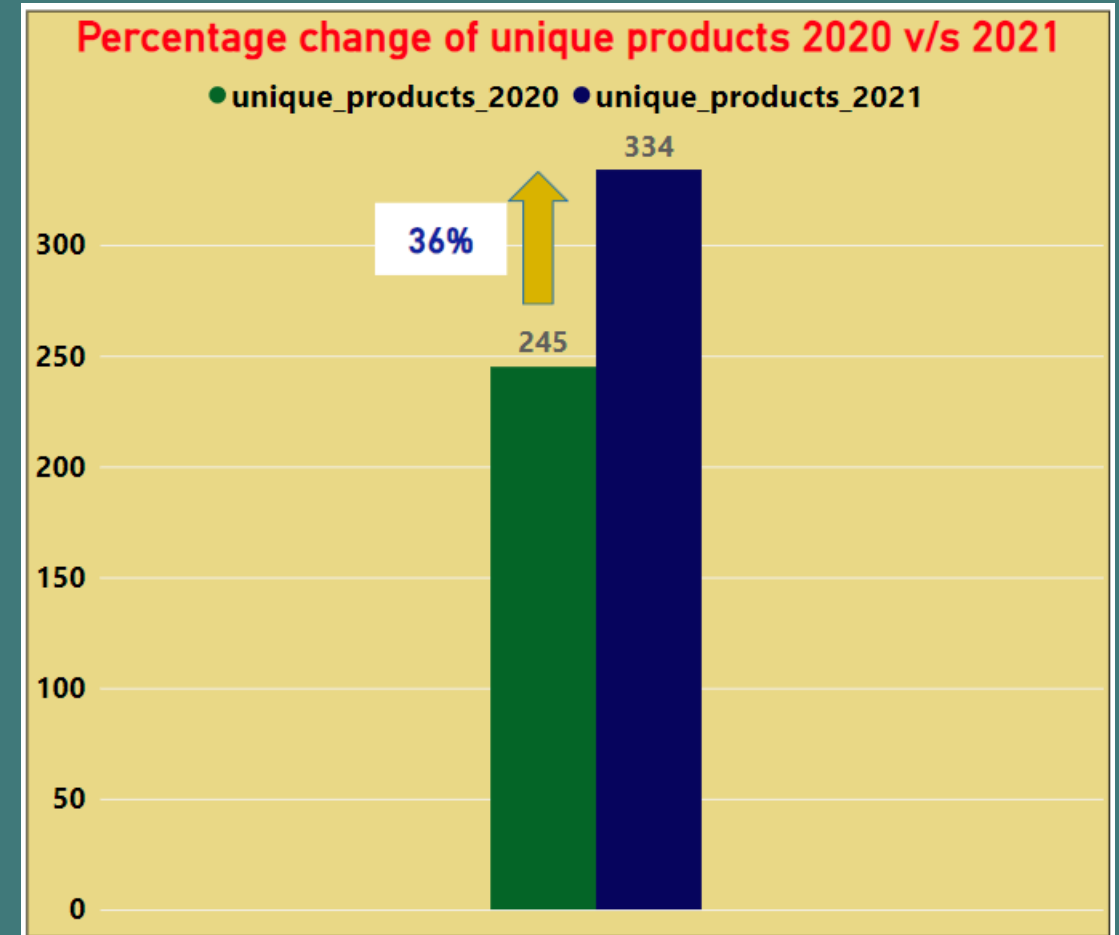


INSIGHT

“Atliq Exclusive ” had 8 markets running in 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_chg

	unique_products_2020	unique_products_2021	percentage_chg
►	245	334	36.33

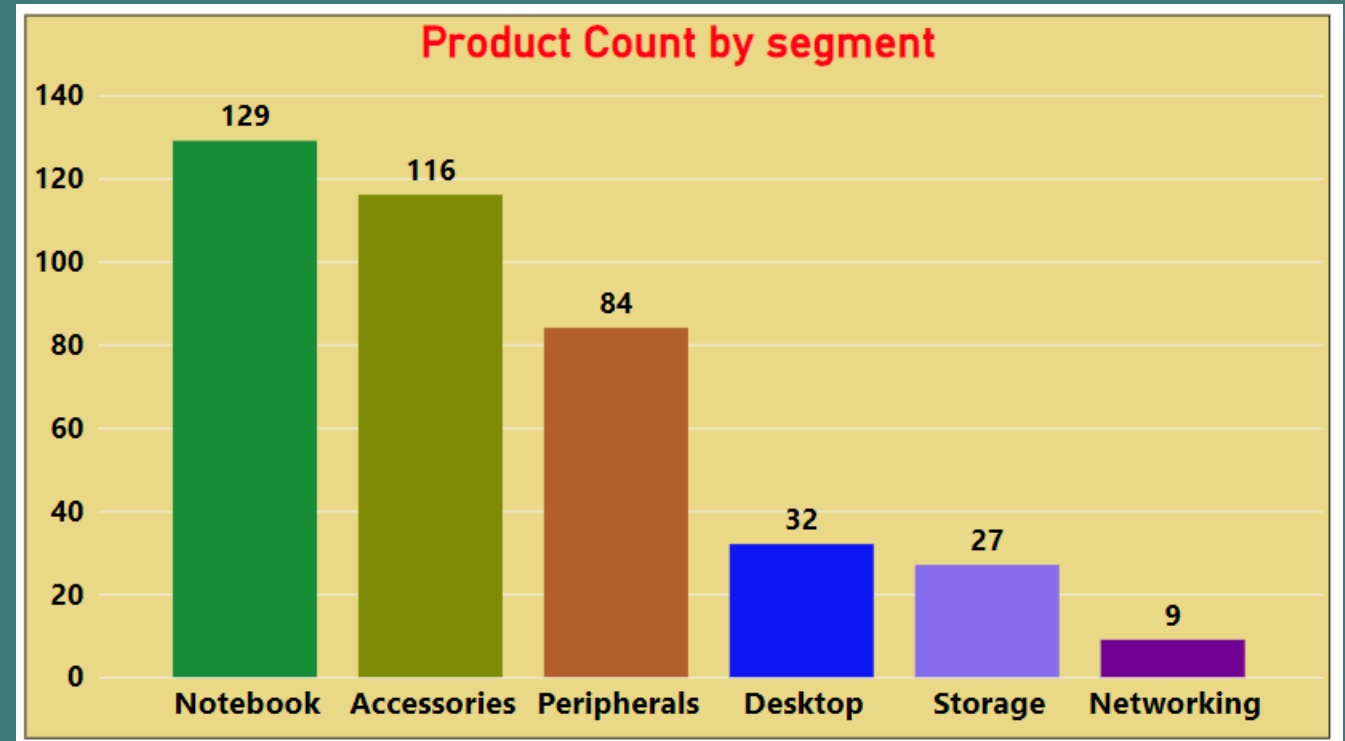


INSIGHT

- ❖ FY 2020 had 245 unique product.
- ❖ FY 2021 had 334 unique product.
- ❖ Percentage change of unique Products is 36.33%
- ❖ This shows good improvement in production sector.

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

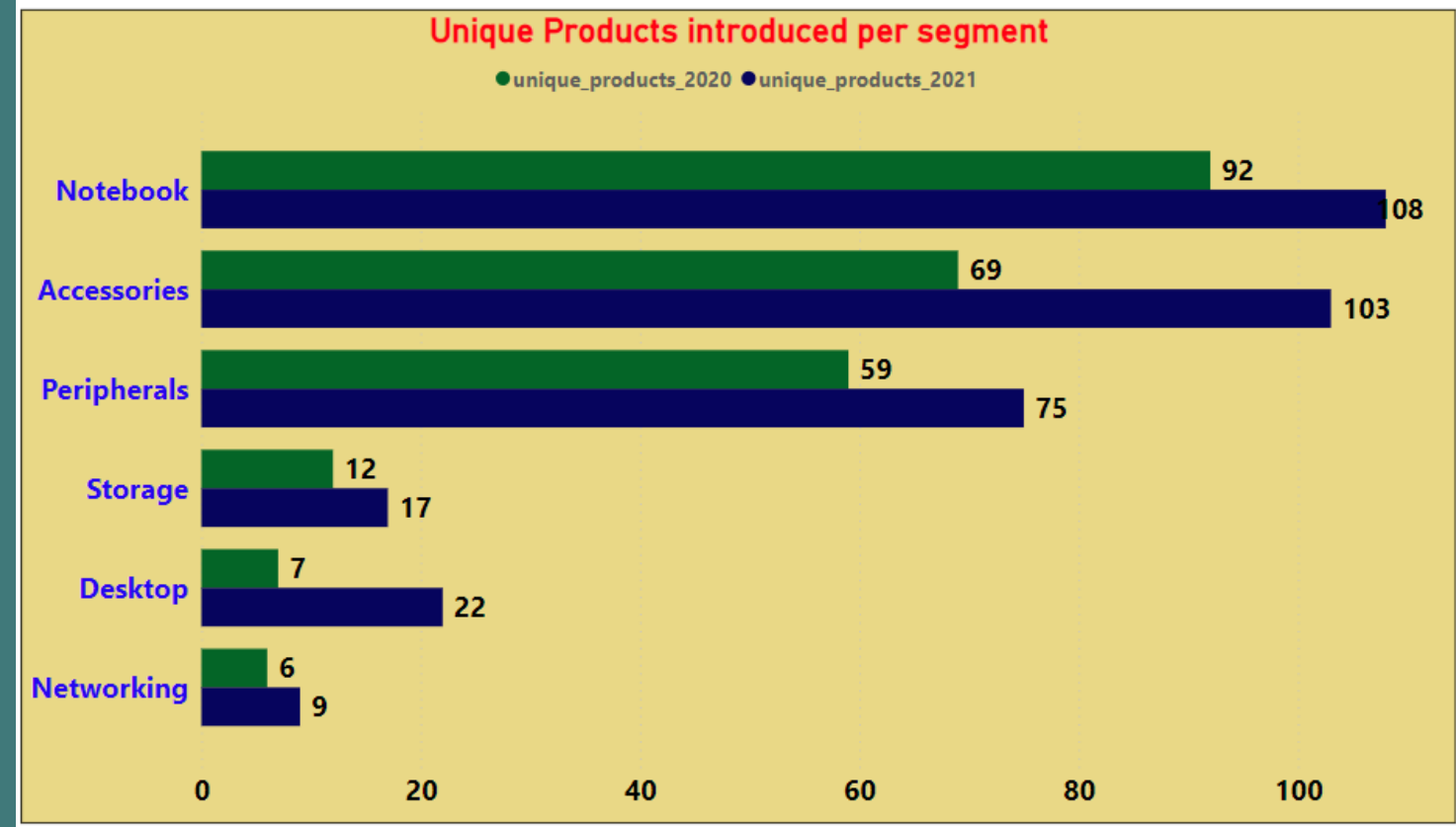


INSIGHT

- ❖ Notebook ,Accessories and Peripherals segments had most products .
- ❖ Desktop ,Storage and Networking segments had to be improved.
- ❖ Network and Storage division need to introduce more products.

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



INSIGHT

- ❖ Accessories segment had introduced more new products in the FY 2021.
- ❖ Networking and Storage segment had introduced least number of Products in FY 2021.

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

Highest Manufacturing cost

A6120110206AQ
HOME Allin1 Gen
2240.5364 \$
([Personal Desktop](#))

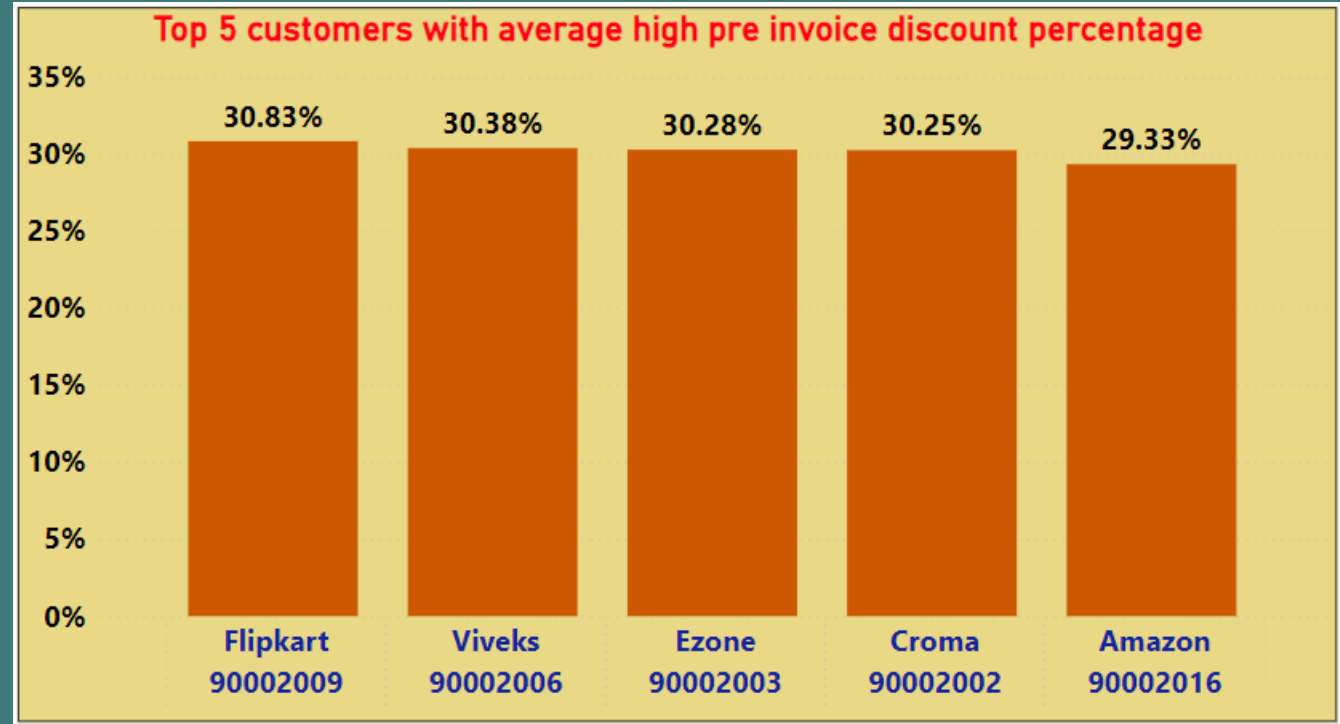
Lowest Manufacturing cost

A2118150101AQ
Master wired x1 Ms
0.8920 \$
([Mouse](#))

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



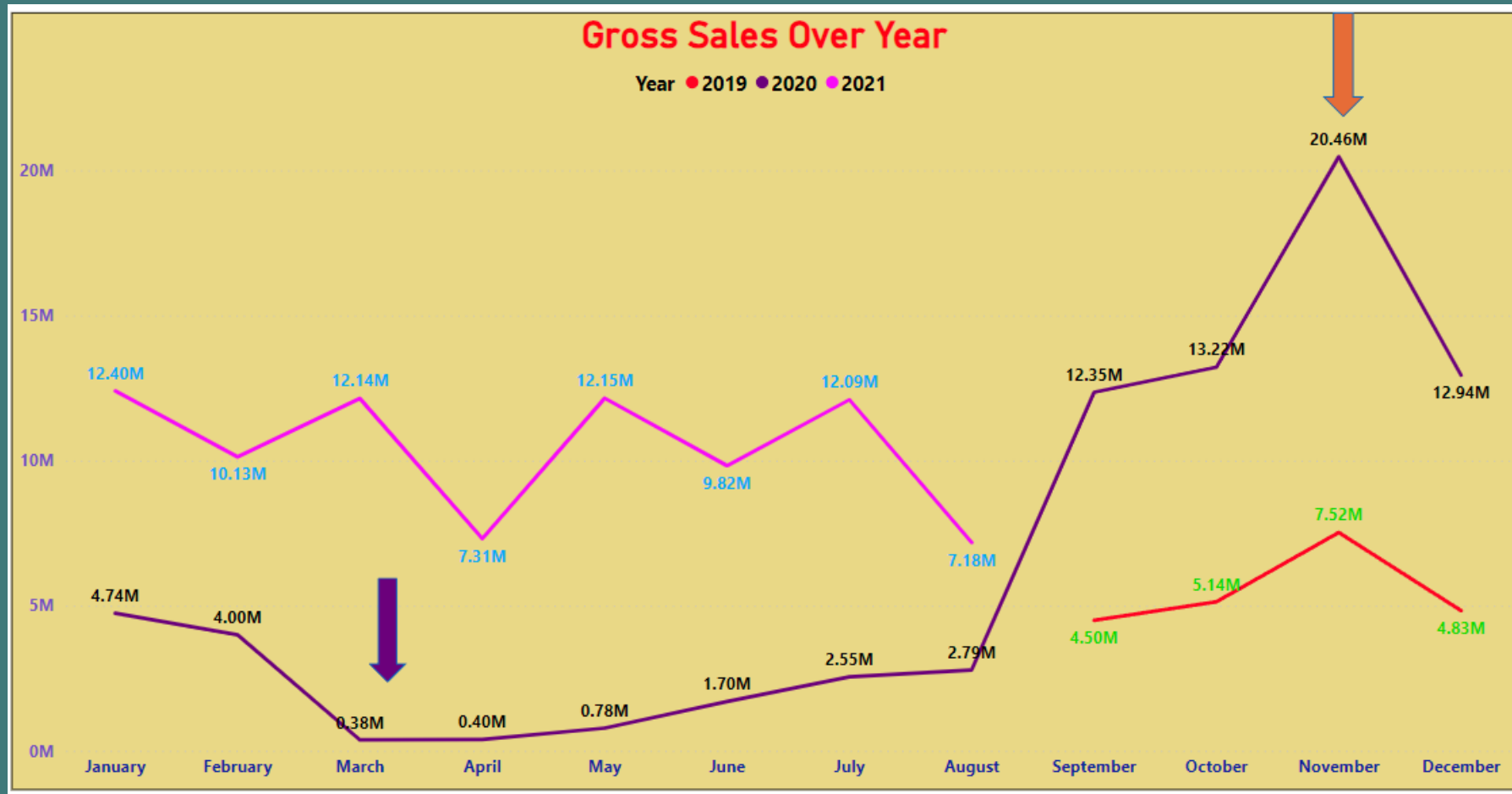
INSIGHT

- ❖ In Indian market all top 5 customers received almost same pre invoice discount percentage during the FY 2021.
- ❖ Flipkart has received highest average discount percentage of 30.83% compared to other customers.

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	4.50 M
	October	2019	5.14 M
	November	2019	7.52 M
	December	2019	4.83 M
	January	2020	4.74 M
	February	2020	4.00 M
	March	2020	0.38 M
	April	2020	0.40 M
	May	2020	0.78 M
	June	2020	1.70 M
	July	2020	2.55 M
	August	2020	2.79 M
	September	2020	12.35 M
	October	2020	13.22 M
	November	2020	20.46 M
	December	2020	12.94 M
	January	2021	12.40 M
	February	2021	10.13 M
	March	2021	12.14 M
	April	2021	7.31 M
	May	2021	12.15 M
	June	2021	9.82 M
	July	2021	12.09 M
	August	2021	7.18 M

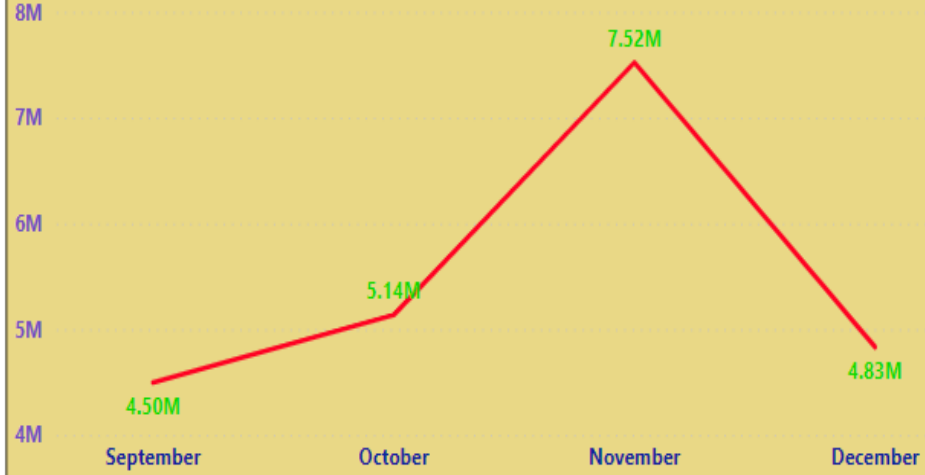


INSIGHT

- ❖ Highest Sales : November 2020.
- ❖ Lowest Sales : March and April 2020 .

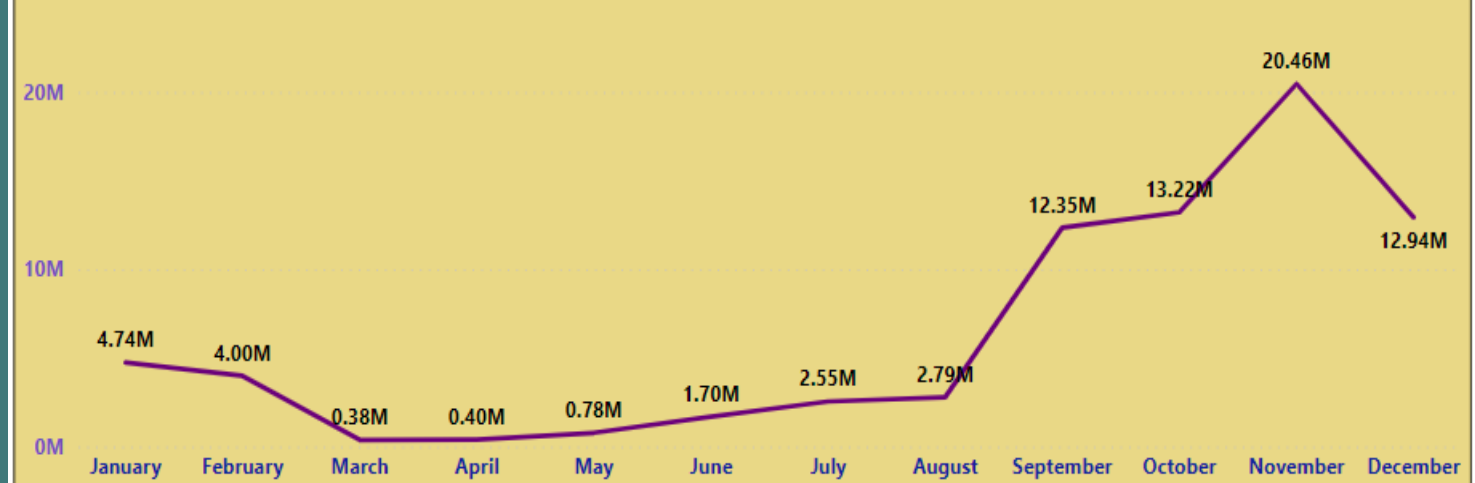
Gross Sales of 2019

Year ● 2019



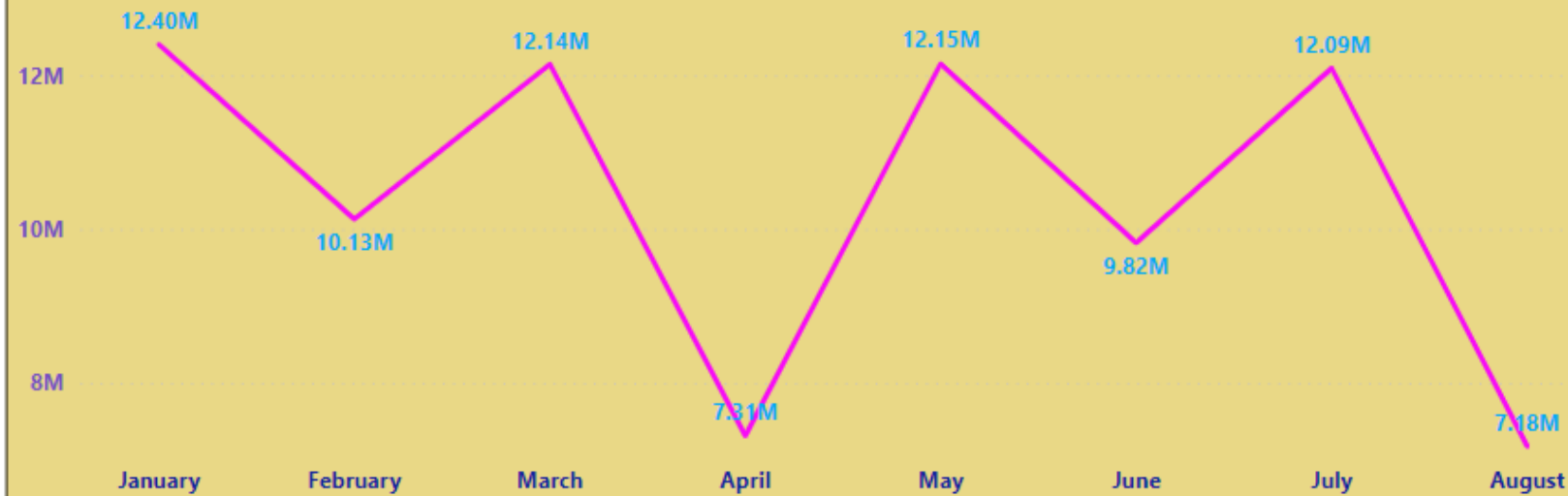
Gross Sales of 2020

Year ● 2020



Gross Sales of 2021

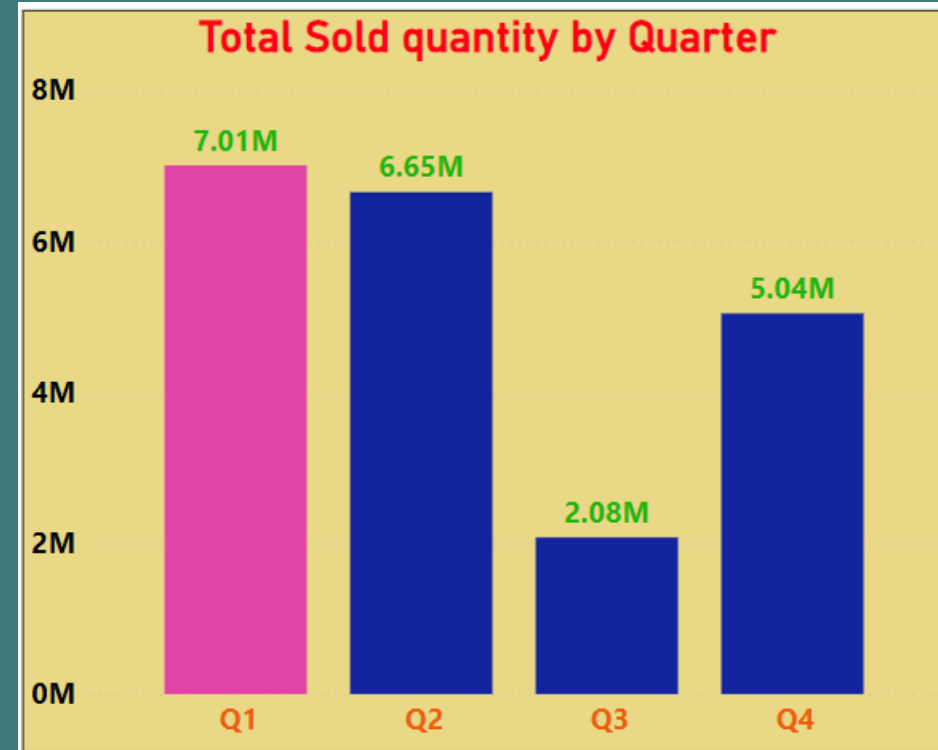
Year ● 2021



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_sold_quantity
▶	Q1	7.01 M
	Q2	6.65 M
	Q3	2.08 M
	Q4	5.04 M

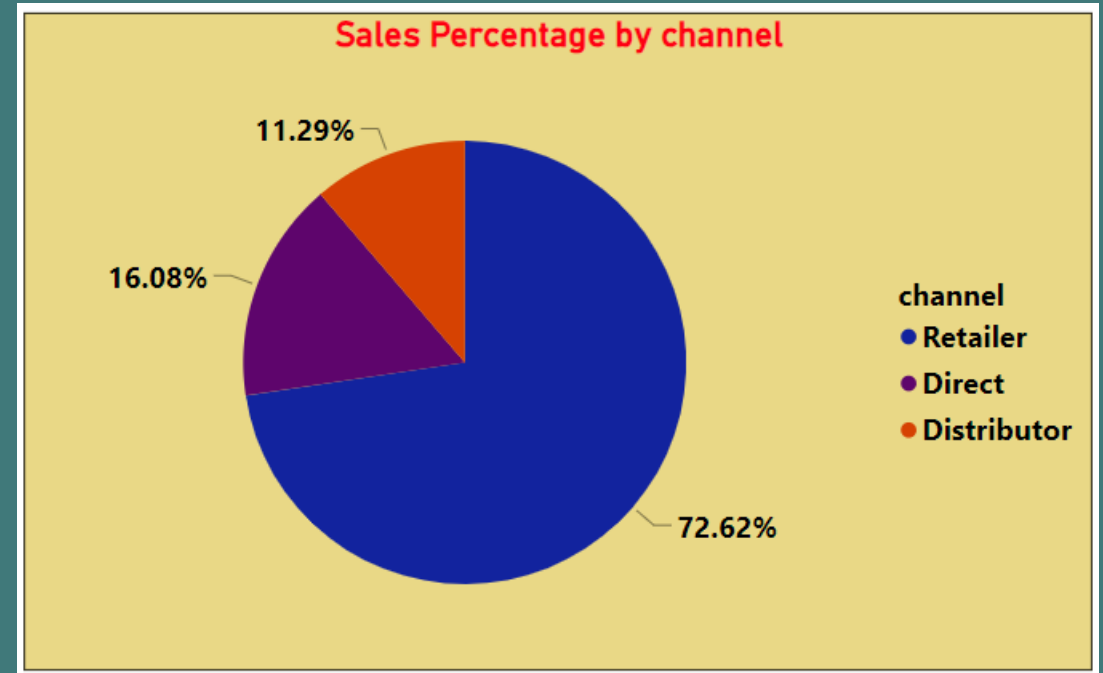


INSIGHT

- ❖ Quarter 1 had highest Sold quantity.
- ❖ Quarter 3 had least Sold quantity.

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_mln	percentage
▶	Retailer	1598.16 M	72.62
	Direct	353.96 M	16.08
	Distributor	248.47 M	11.29



INSIGHT

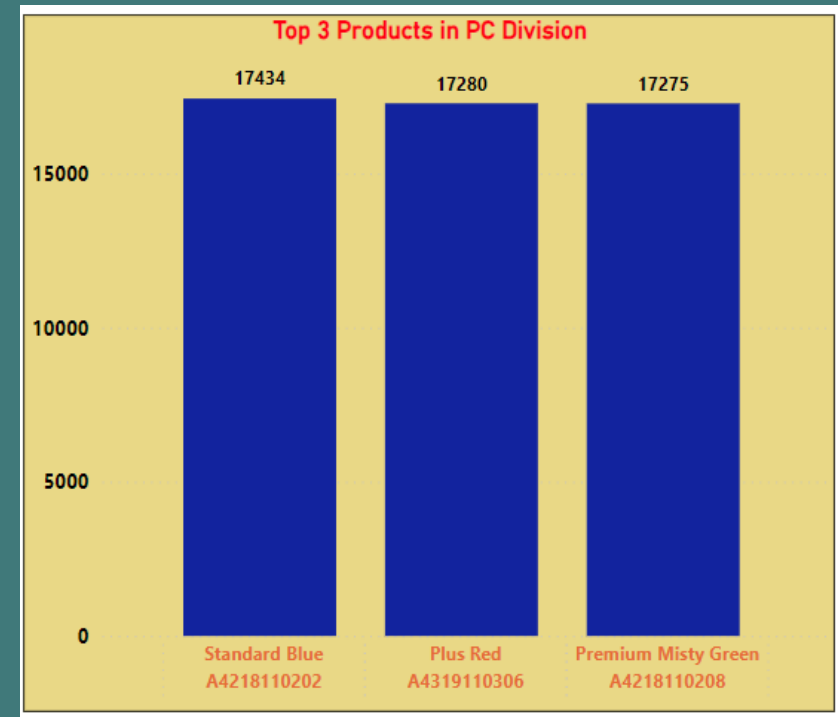
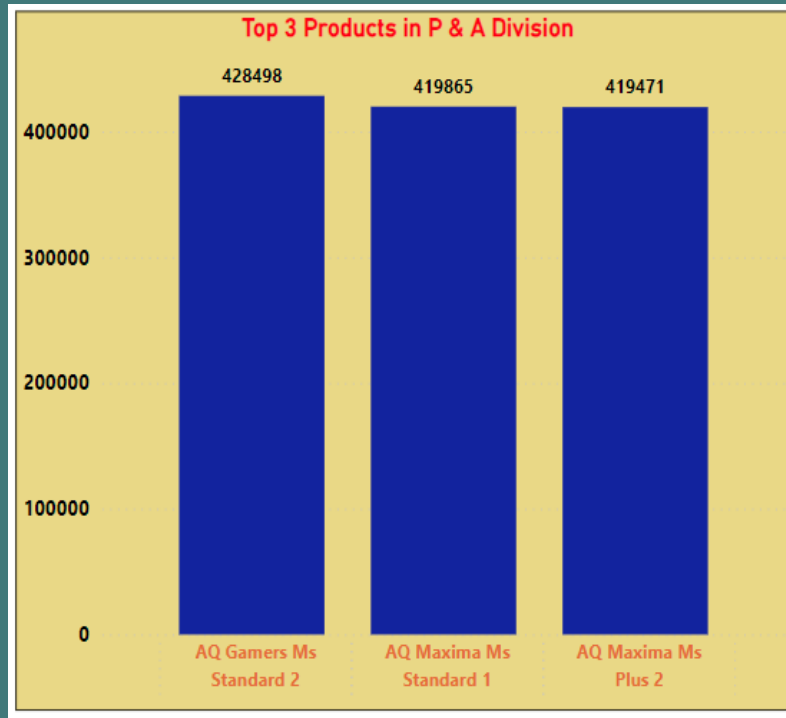
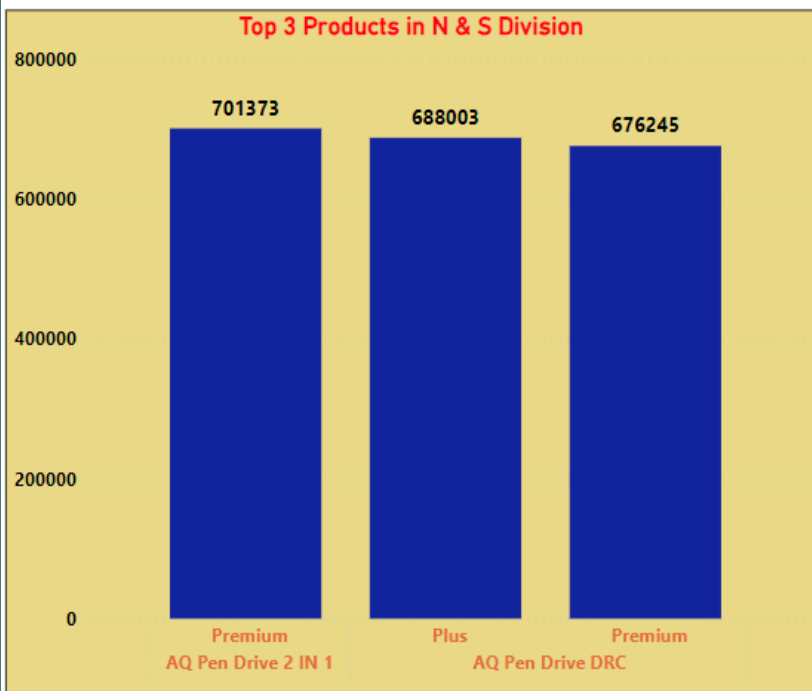
- ❖ Retailer channel contributes 73% of Gross sales and the rest 27% is from Direct and Distributor channel.

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	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

INSIGHT

- ❖ Top 3 selling Products in N & S division was from Storage segment.
- ❖ Top 3 selling Products in P & A division was from accessory segment.
- ❖ Top 3 selling Products in PC division was from notebook segment.



INSIGHT

- ❖ The products in N & S was from USB Flash Drives of different variant standard ,plus ,premium.
- ❖ In P & A Mouse category was the top sold product.
- ❖ Personal Laptops were best selling category in P & C division.



Thank
you

