



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.

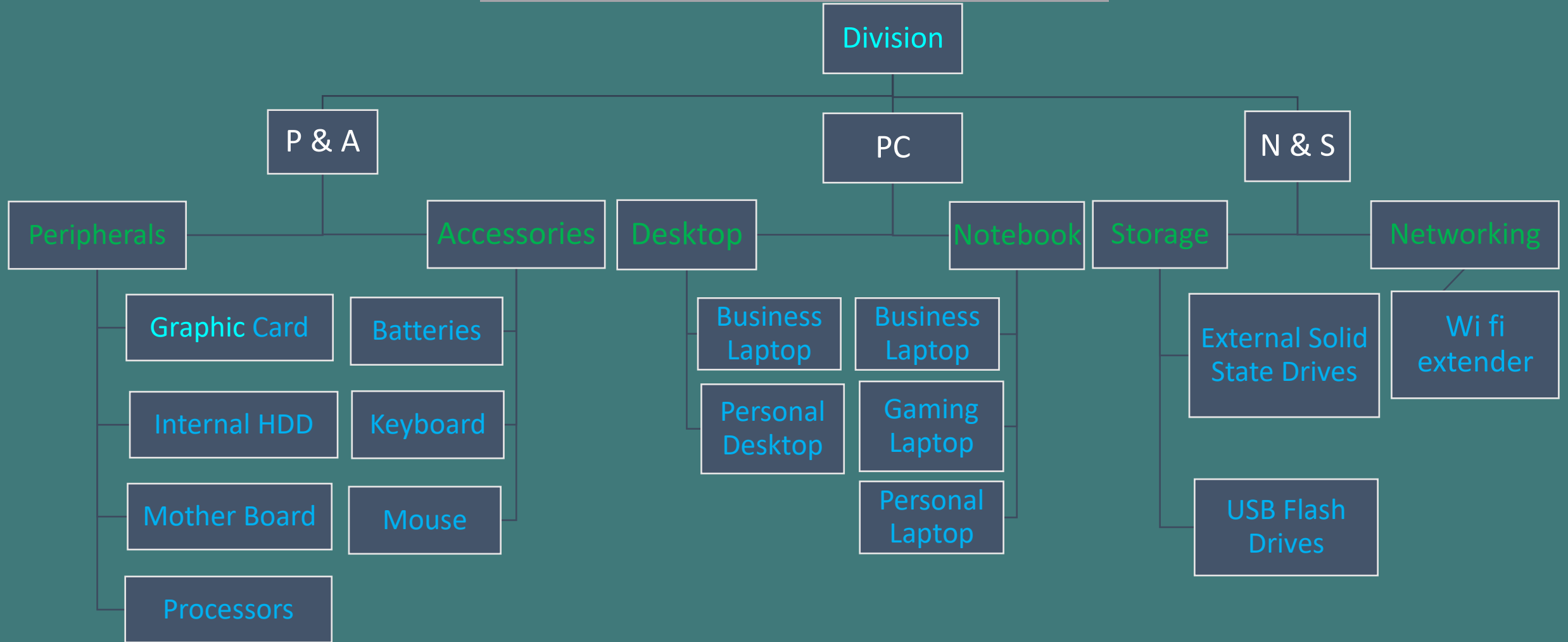
AtliQ's fiscal year

1. September 2019 — August 2020
FY 2020

2. September 2020 - August 2021
FY 2021

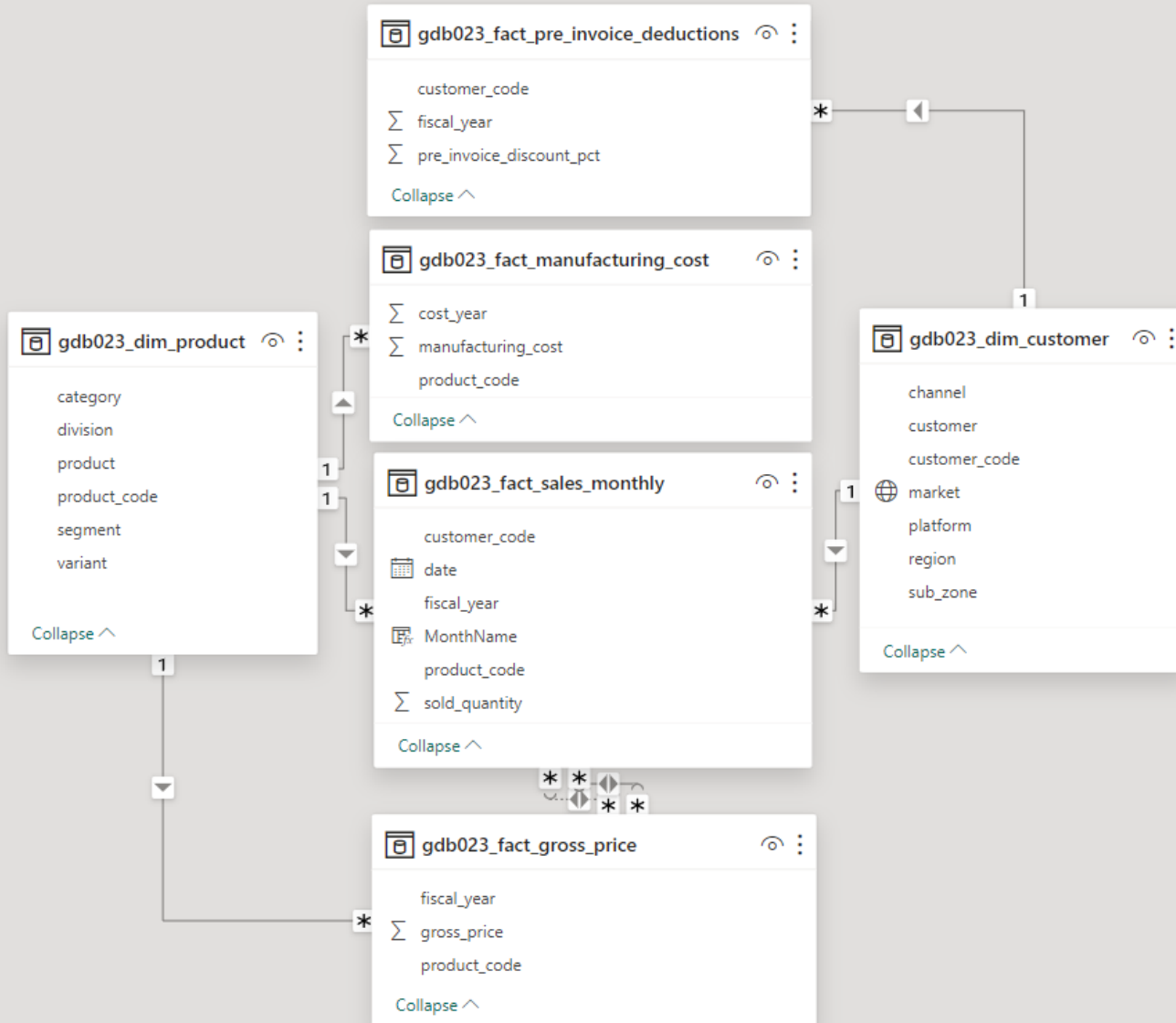


PRODUCT DETAILS



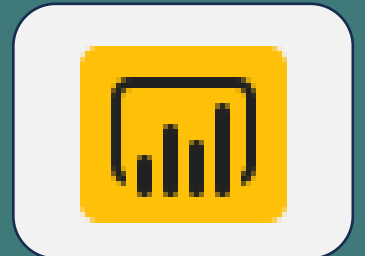
"P & A" (Peripherals and Accessories), "N & S" (Network and Storage) and "PC" (Personal Computer).

DATA OVERVIEW



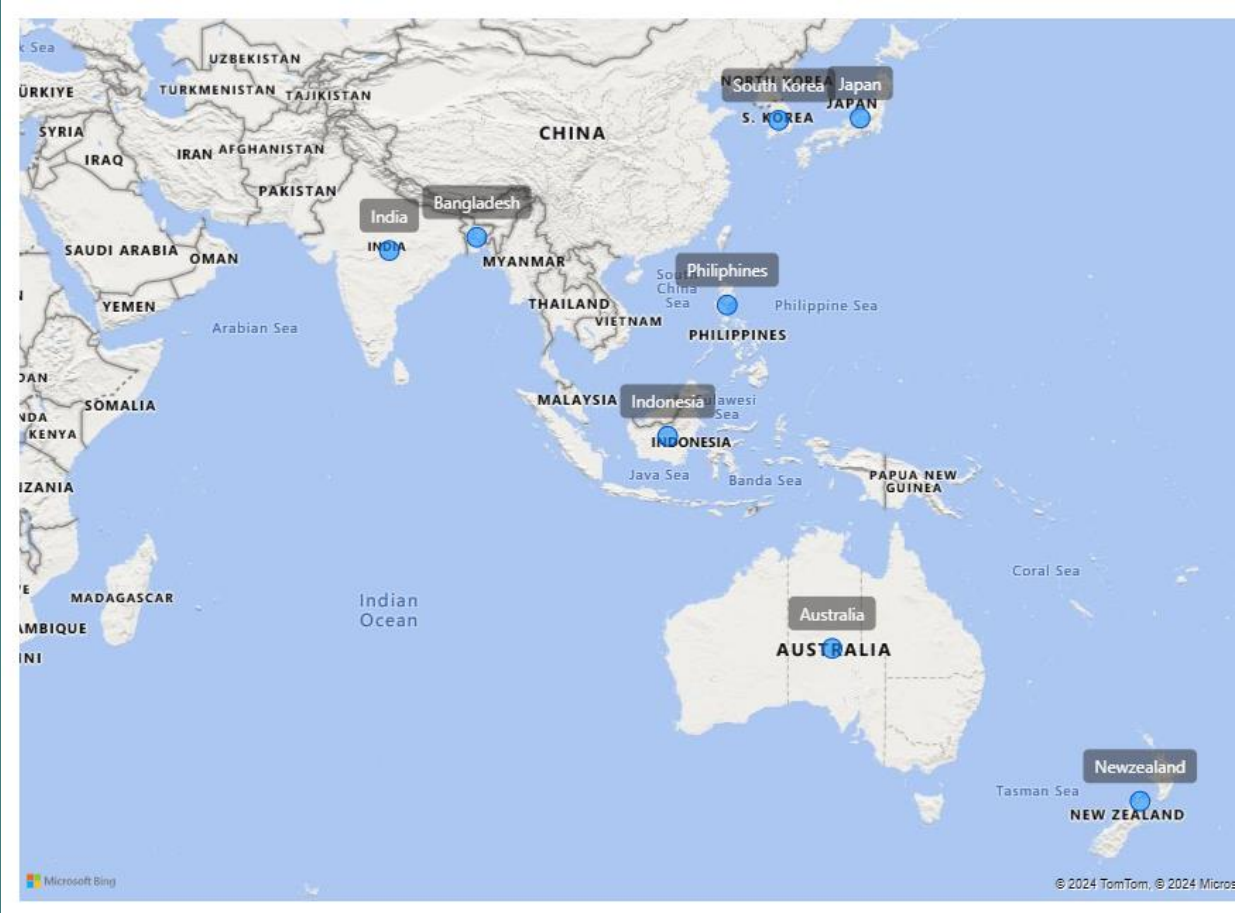
METHODOLOGY

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 |

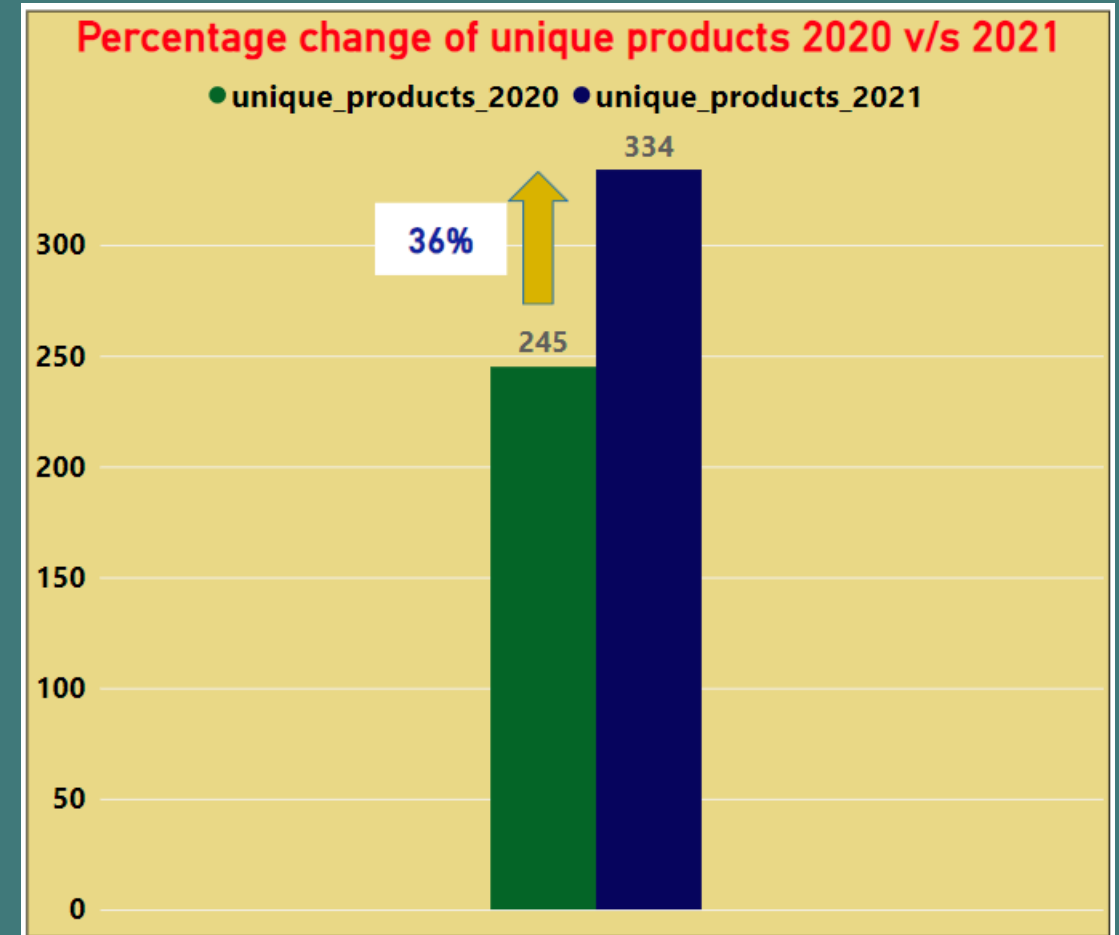


INSIGHT

“Atliq Exclusive ” has 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 |

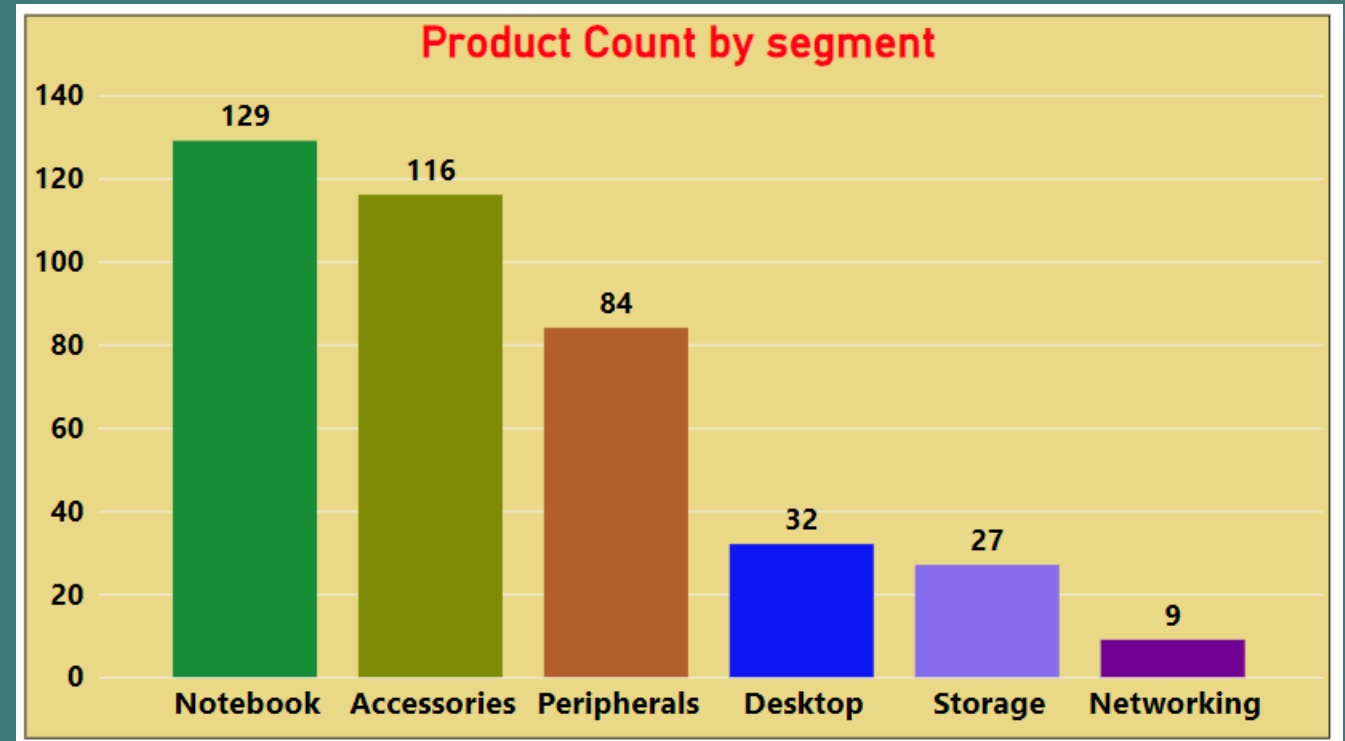


INSIGHT

- ❖ FY 2020 has 245 unique product.
- ❖ FY 2021 has 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 |

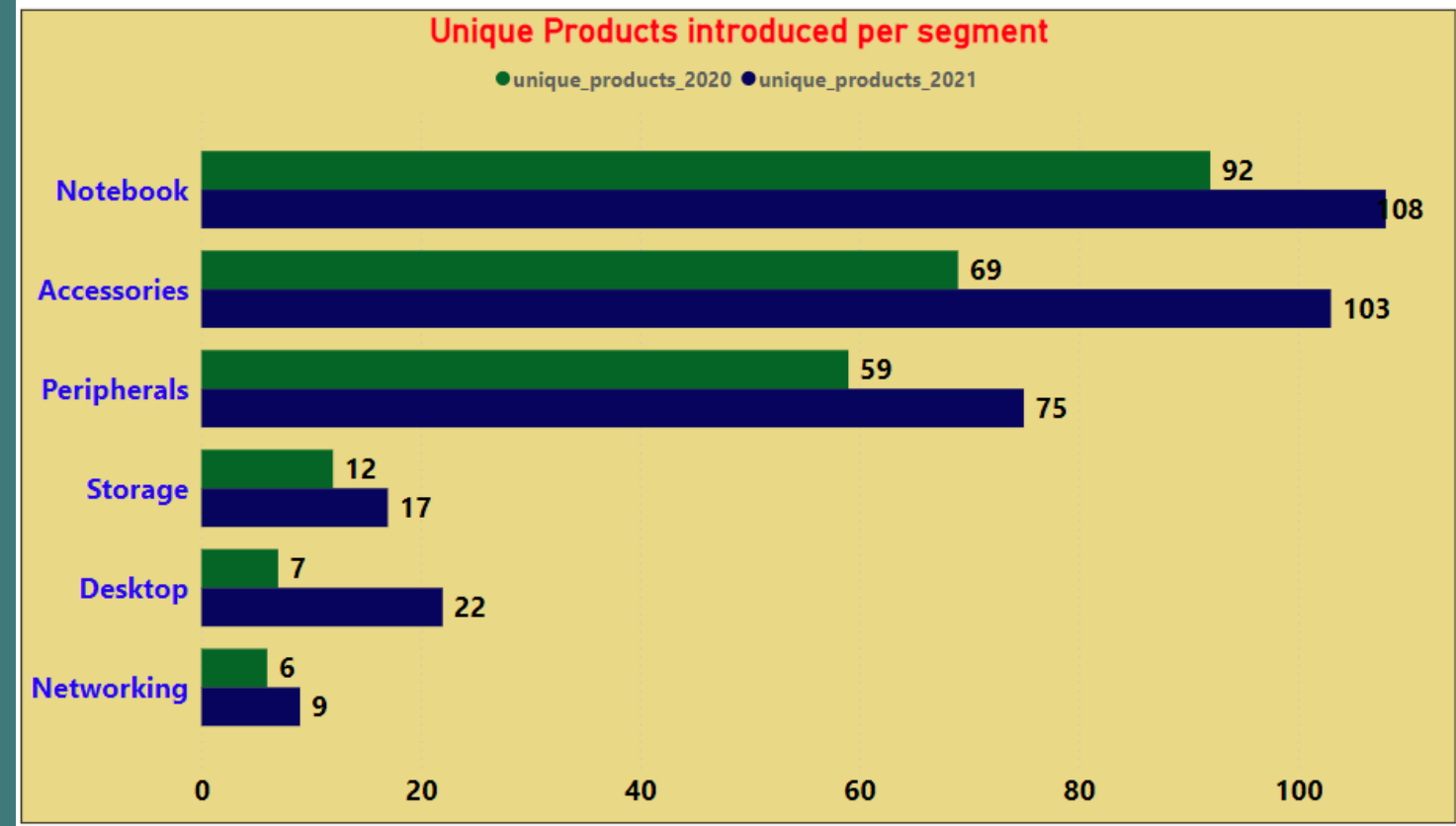


INSIGHT

- ❖ Notebook ,Accessories and Peripherals segments have most products .
- ❖ Desktop ,Storage and Networking segments has 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

- ❖ Desktop segment has introduced more new products in the FY 2021.
- ❖ Networking and Storage segment has 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](#))

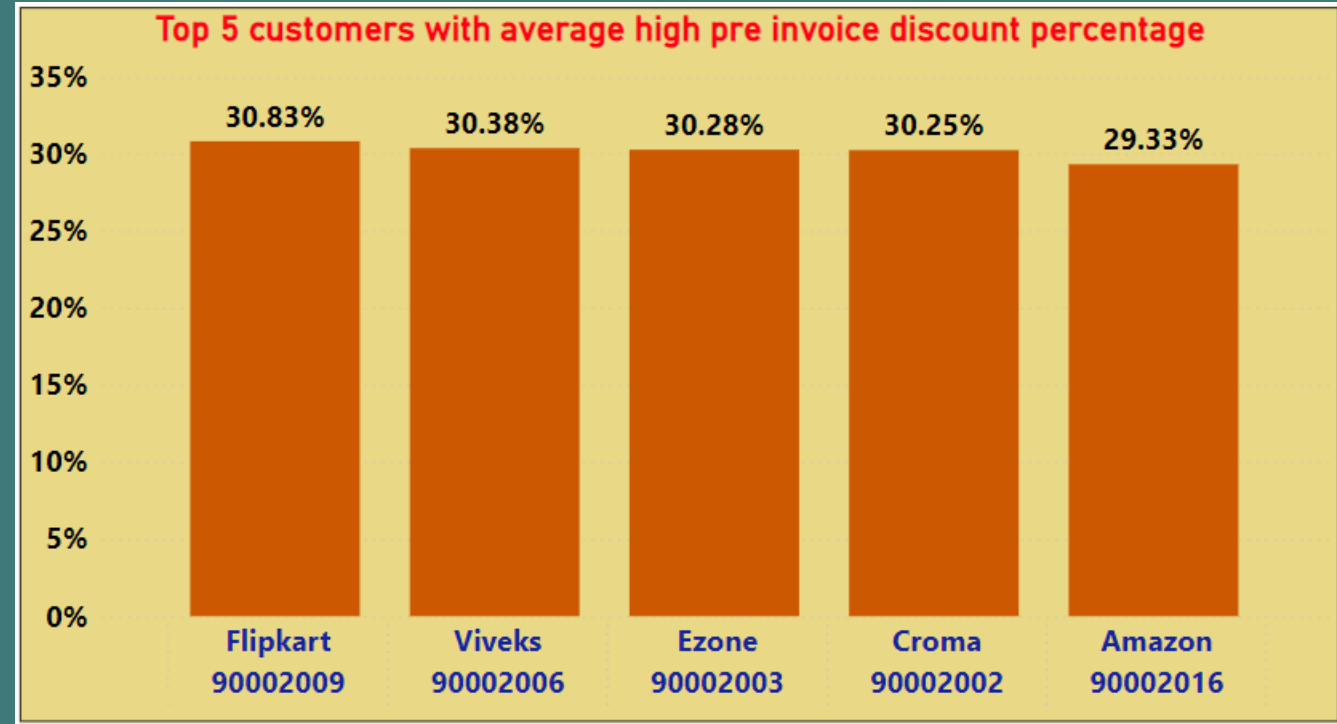
Lowest Manufacturing cost

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 |



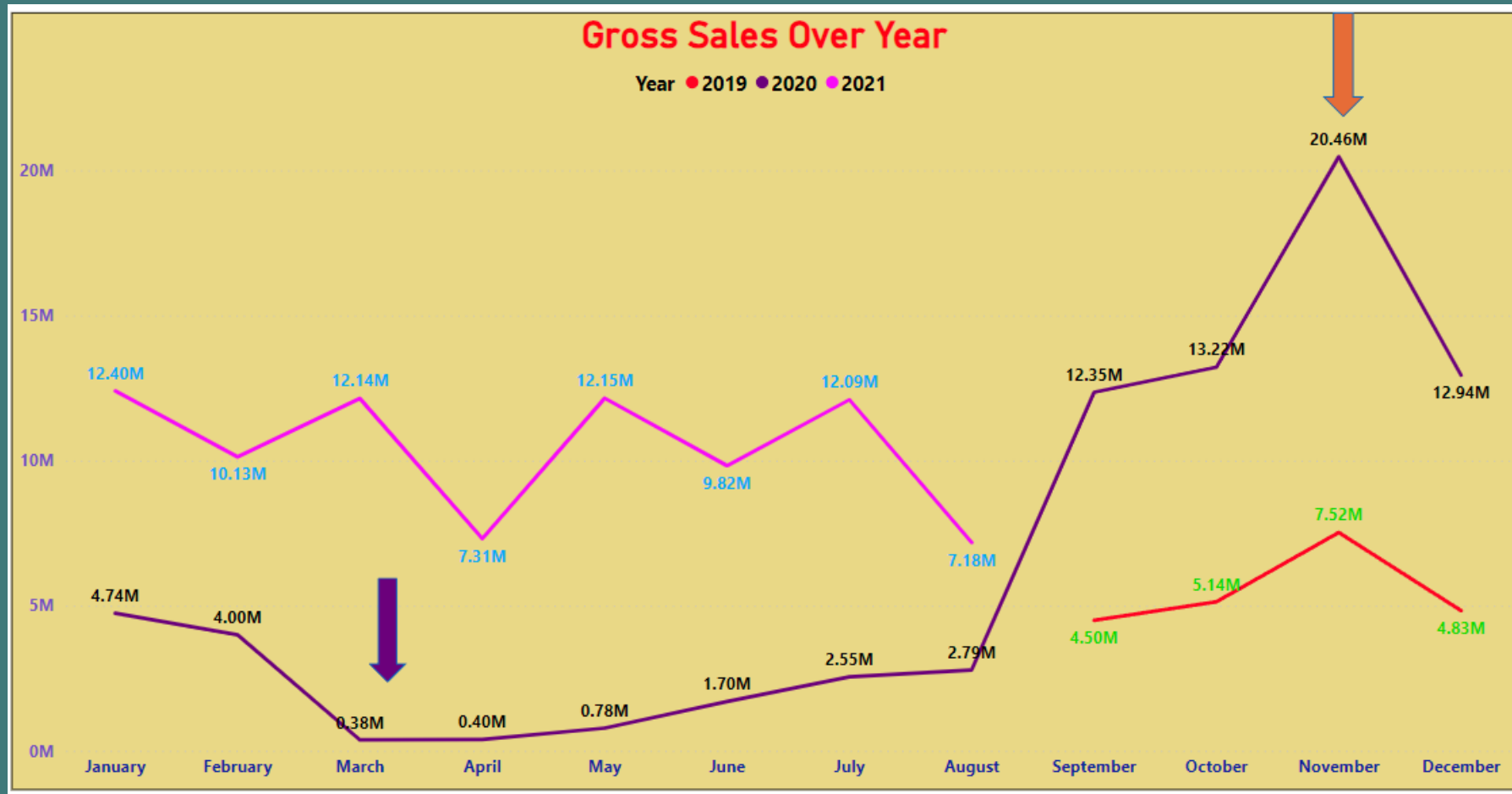
INSIGHT

- ❖ 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 |

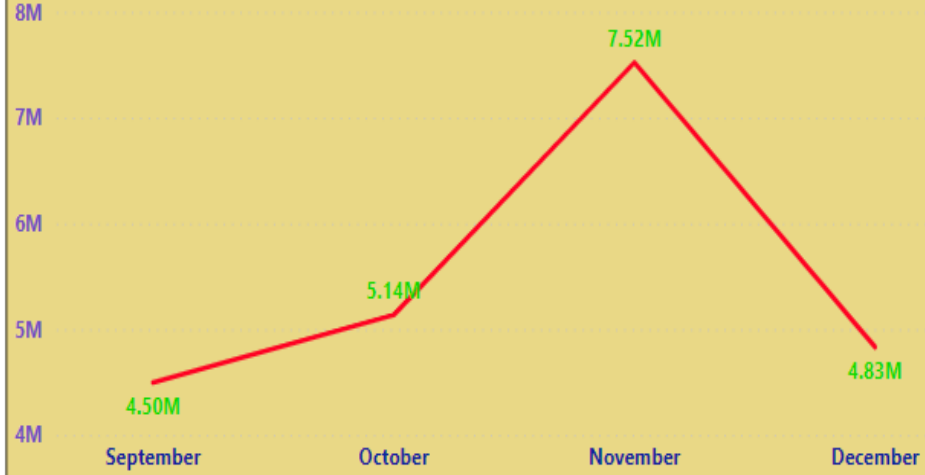


INSIGHT

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

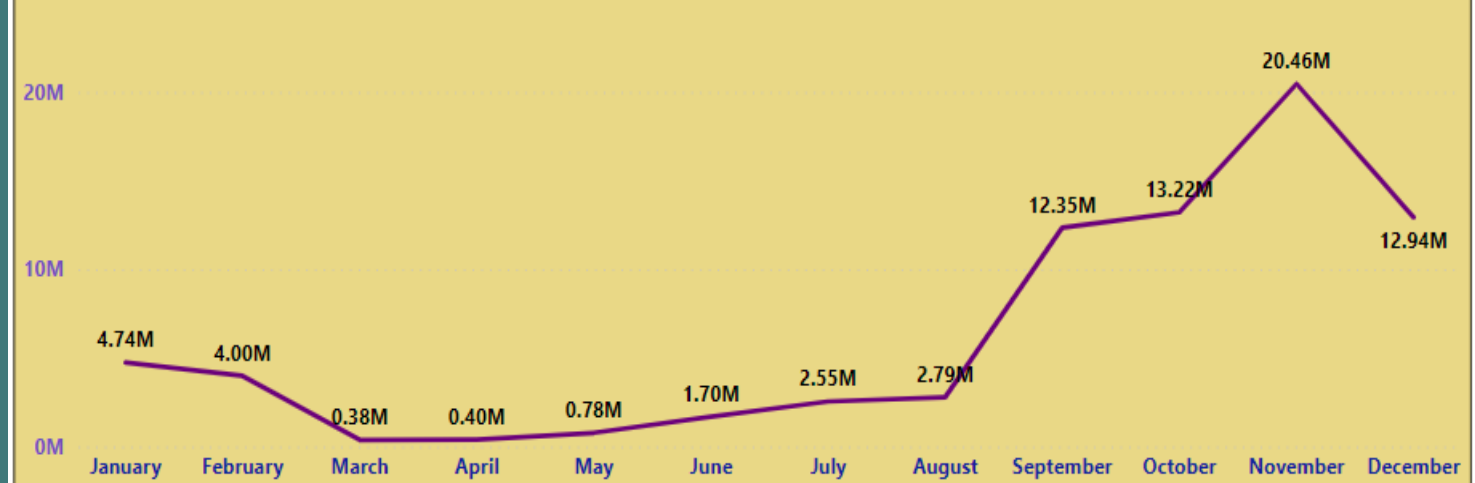
Gross Sales of 2019

Year ● 2019



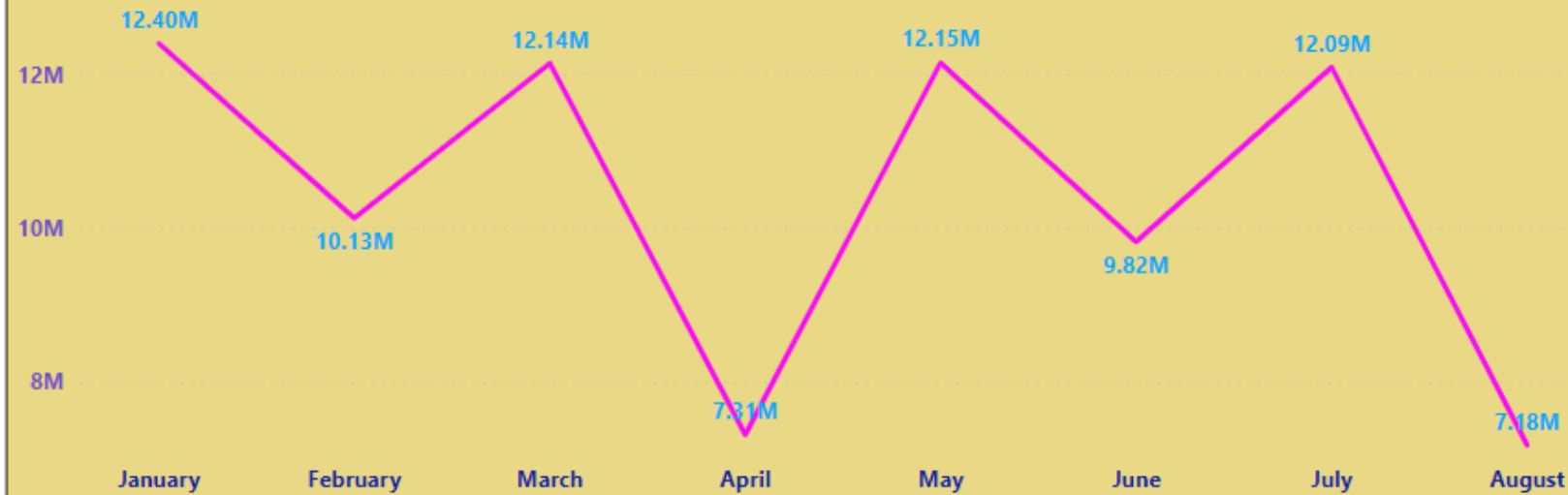
Gross Sales of 2020

Year ● 2020



Gross Sales of 2021

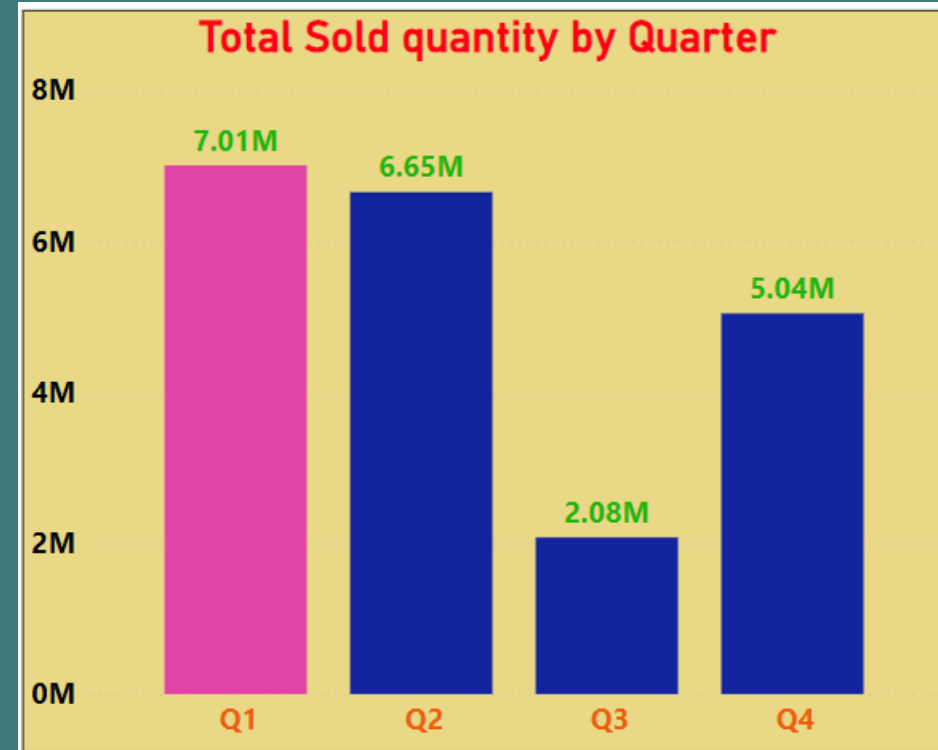
Year ● 2021



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 |

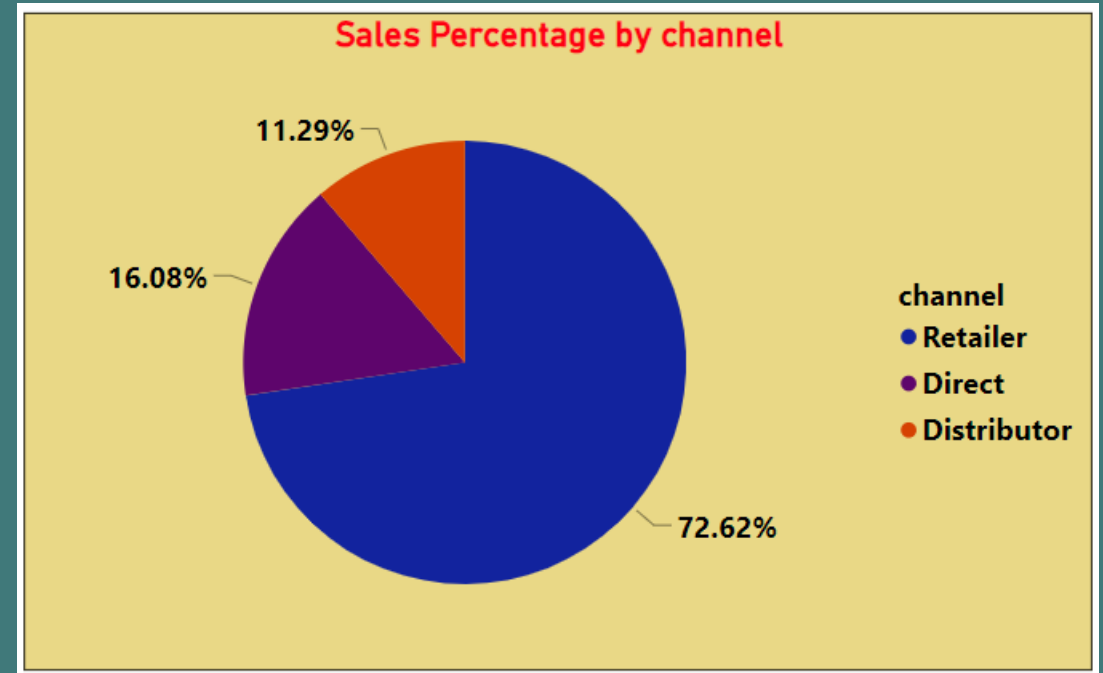


INSIGHT

- ❖ Quarter 1 has highest Sold quantity.
- ❖ Quarter 3 has 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

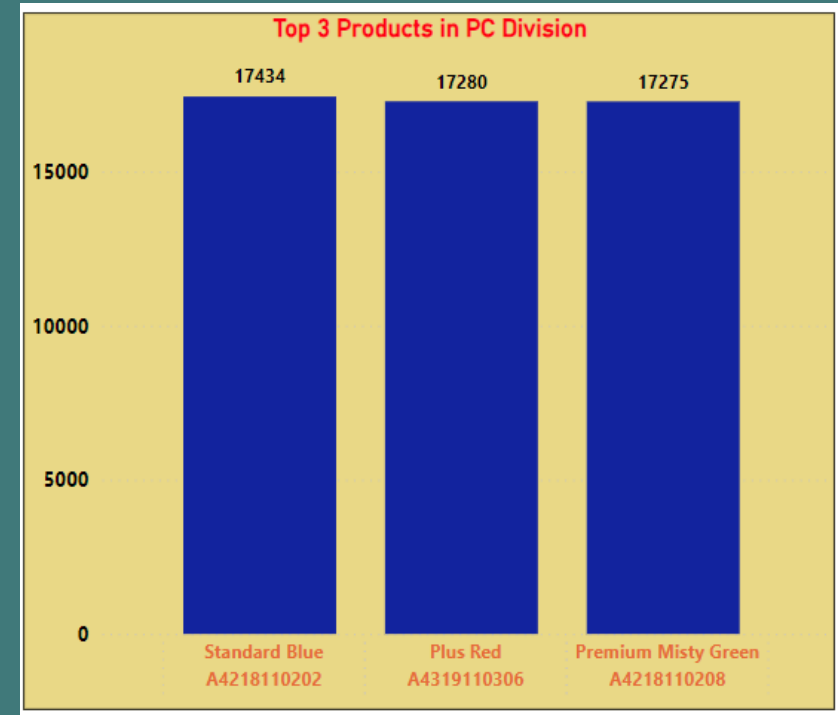
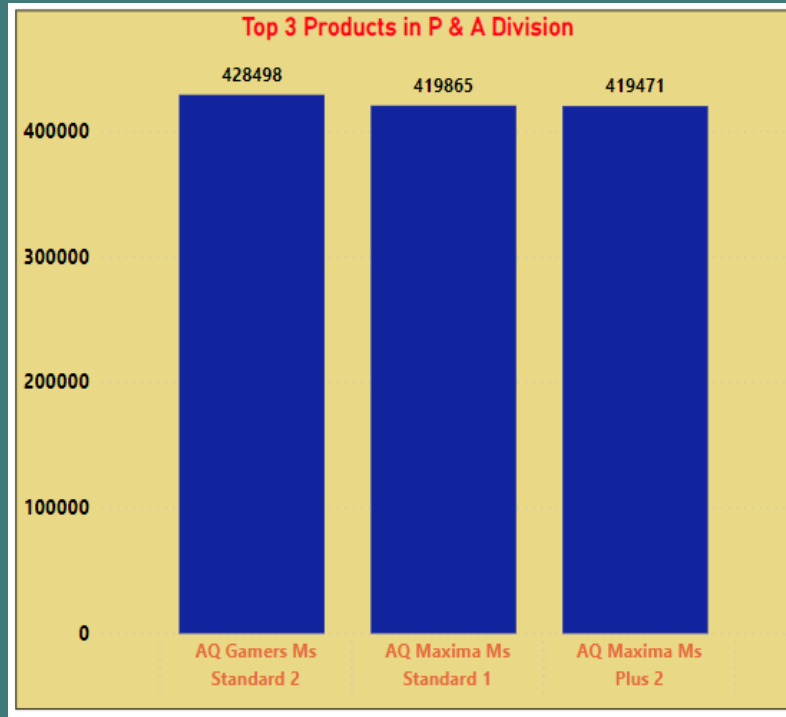
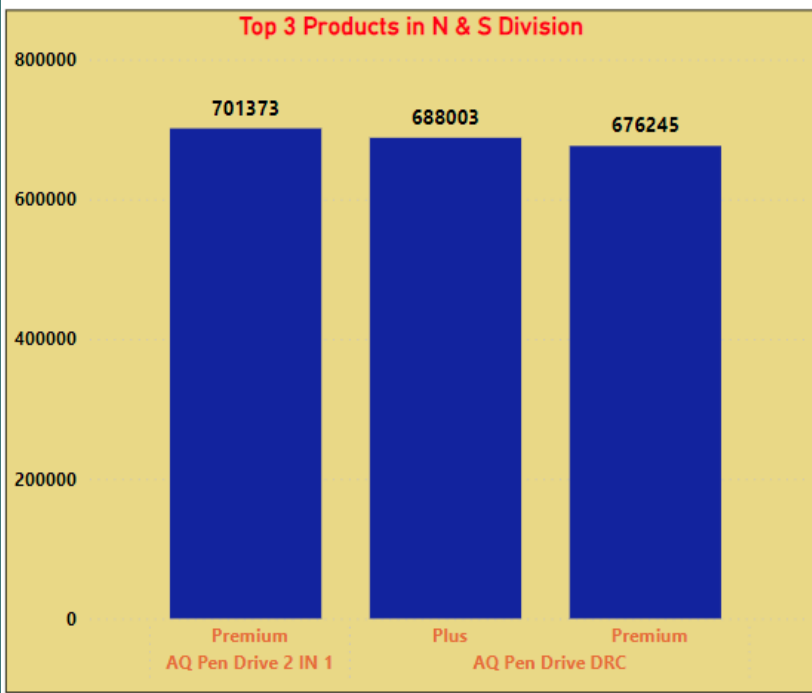
- ❖ Retailer channel contributes 73% of Gross sales and the rest 27% is from Direct and Distributor channel.

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



INSIGHT

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



Thank
you

