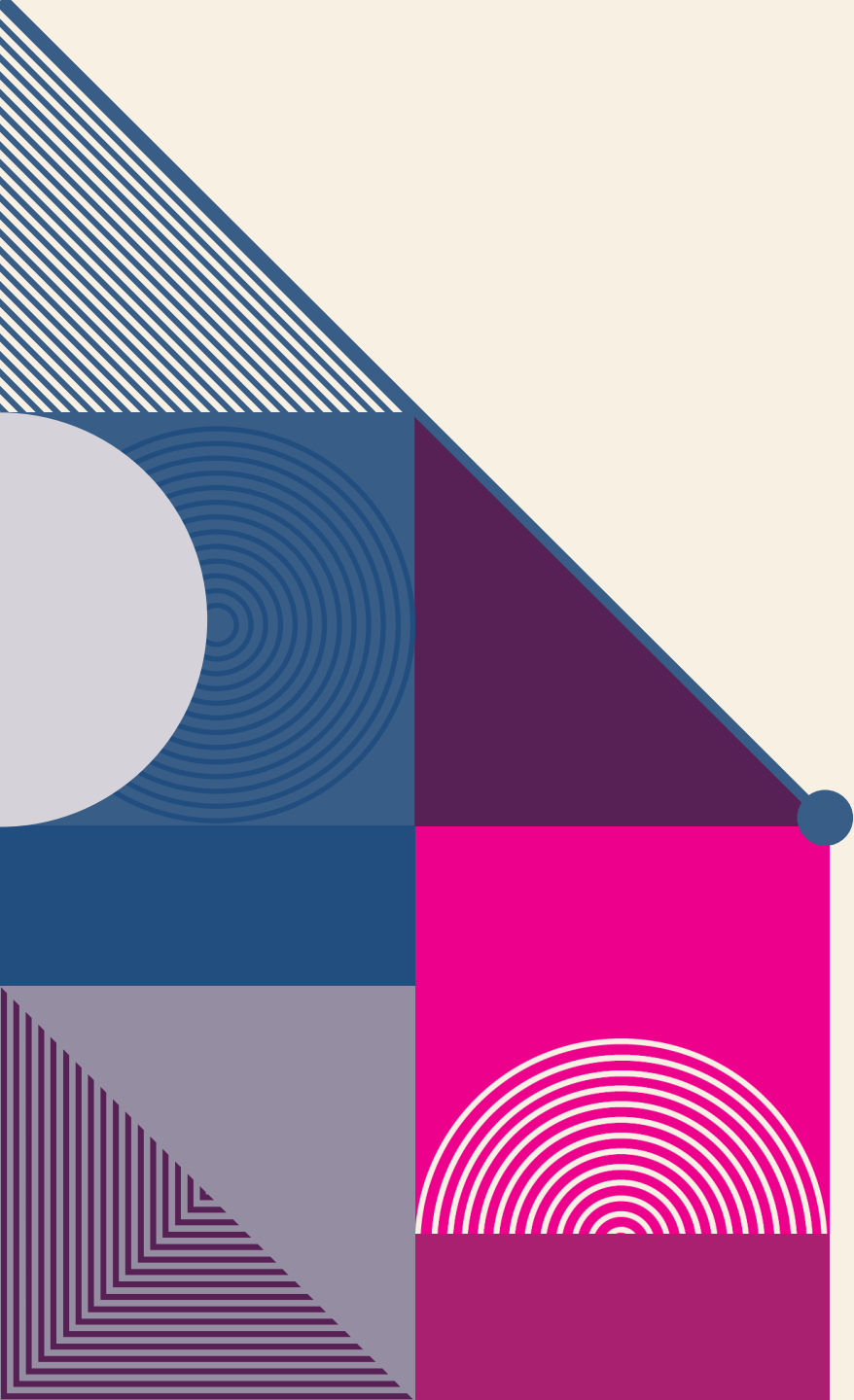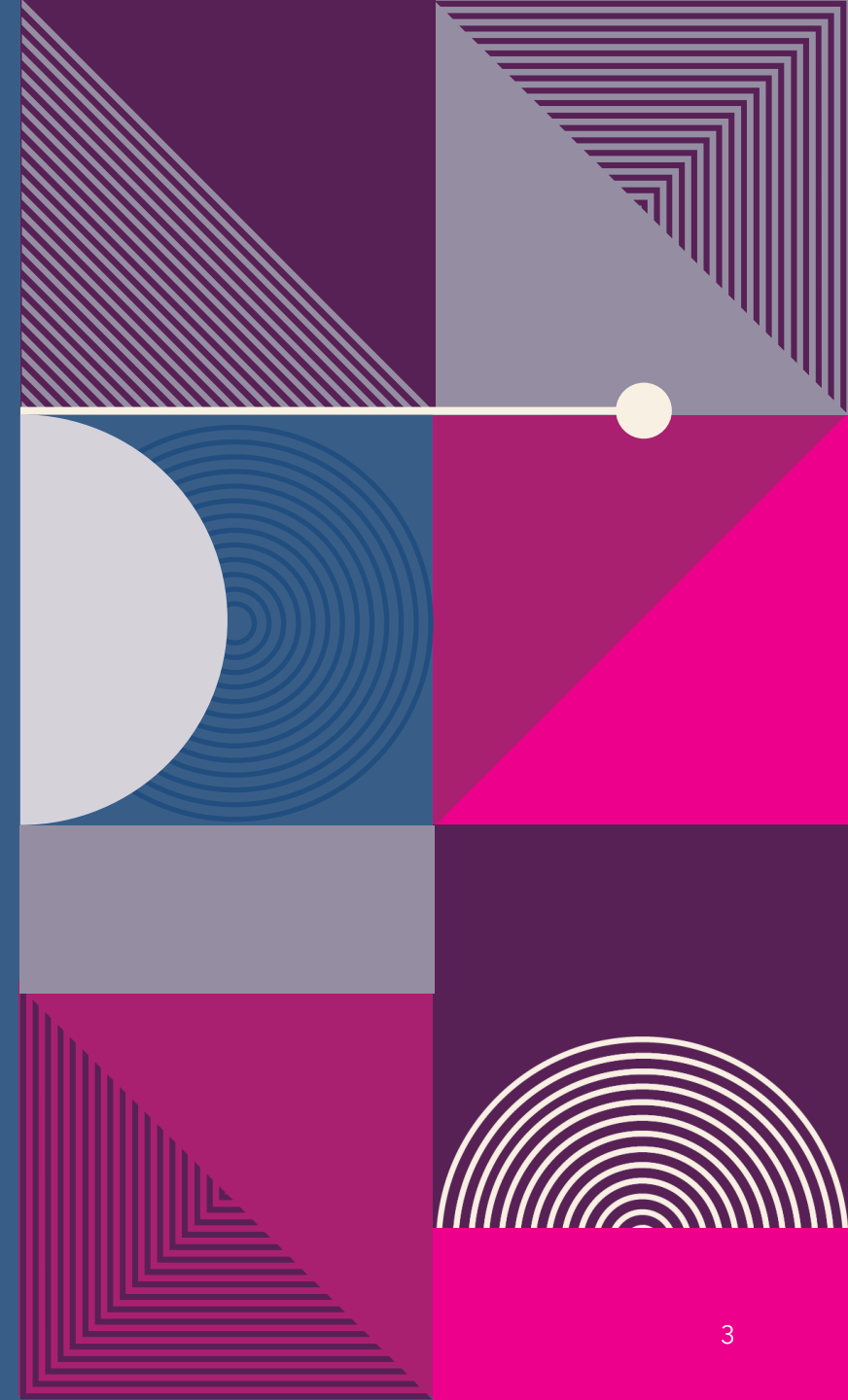# AGENDA

1. Context.

2. Atliq 's Market Spread.

3. Getting familiar with input data.

4. Ad -hoc requests, queried results, Insights and visualization.

CONTEXT

Atliq Hardwares (Imaginary company), stands at the forefront of computer hardware production within India. However, recent observations by our management have unveiled a gap in accessing timely and insightful data to facilitate swift and informed decision-making processes.

This deficiency has been pinpointed through the identification of 10 ad-hoc requests, each demanding critical insights for strategic planning and operational enhancement.
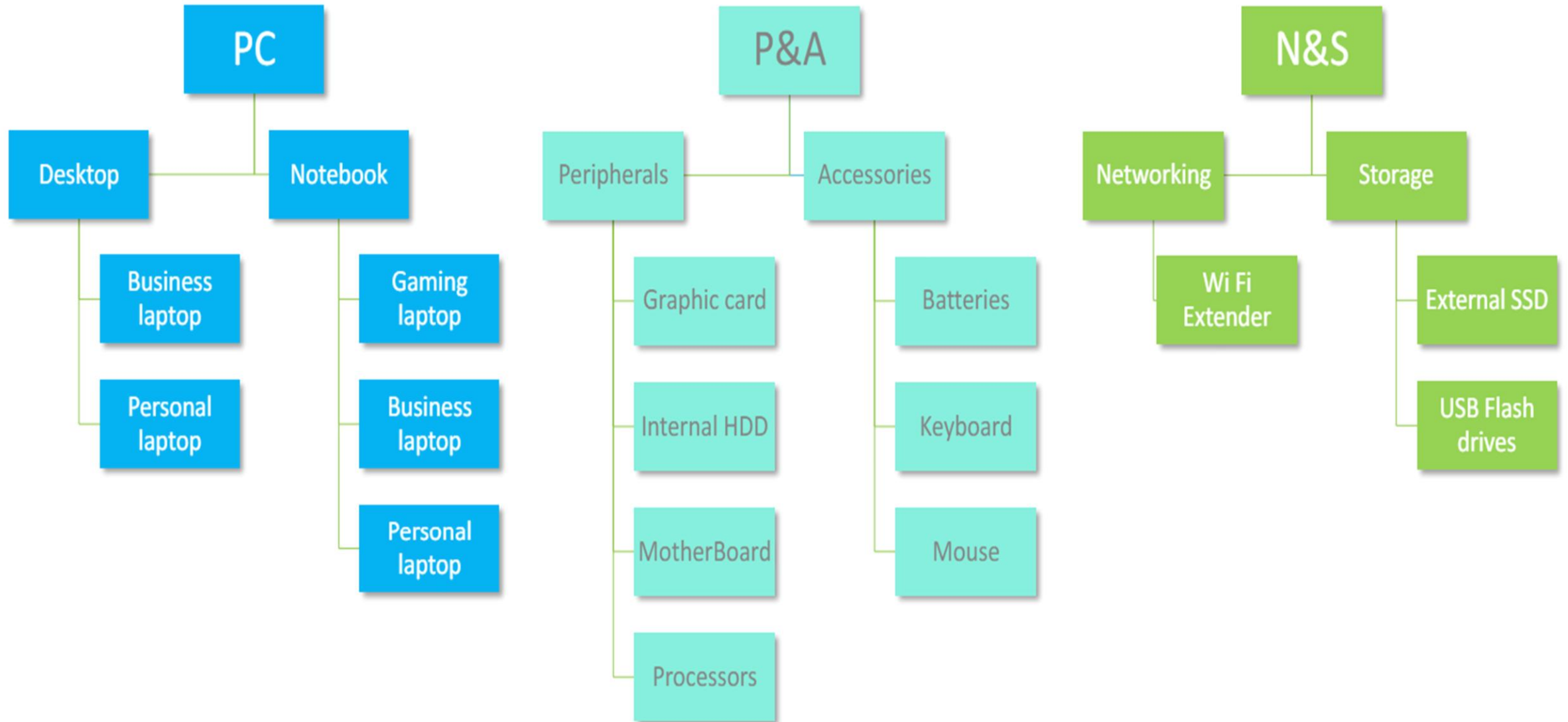
To address this challenge, we propose an approach centered around executing SQL queries tailored to address these specific requests. By extracting pertinent data from our systems, we aim to convert these findings into clear and intuitive visualizations. These visual representations will serve as powerful tools for conveying actionable insights to our top-level management, empowering them to make informed decisions swiftly and effectively.

ATLIQ 'S MARKET SPREAD

ATLIQ 'S PRODUCT LINE

The dataset encompasses sales data for both fiscal years 2020 and 2021, supplemented by various dimension tables such as customer details, product specifications, and others.

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

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

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)

fact_pre_invoice_deductions
- customer_code INT
- fiscal_year YEAR
- pre_invoice_discount_pct DECIMAL(5,4)

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

6

AD -HOC REQUESTS, QUERIED RESULTS, INSIGHTS AND VISUALIZATION
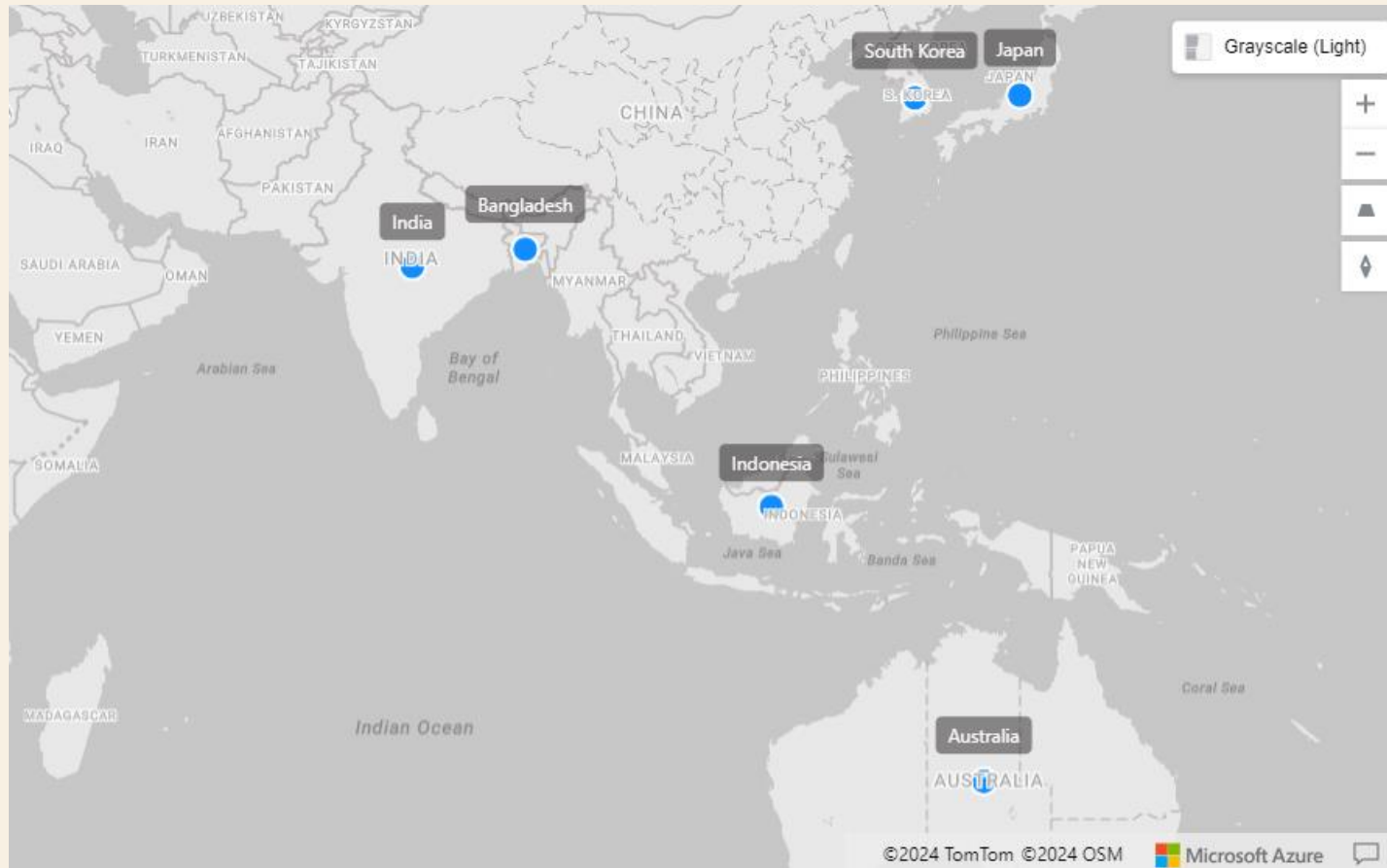
Tools utilized - MySQL

REQUEST 1

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

Output -

market
Australia
Bangladesh
India
Indonesia
Japan
Newzealand
Philiphines
South Korea

VISUAL – AZURE MAP

In the APAC region, our Exclusive store has established its presence in 8 major markets.

REQUEST 2

What is the percentage of unique product increase in 2021 vs. 2020?
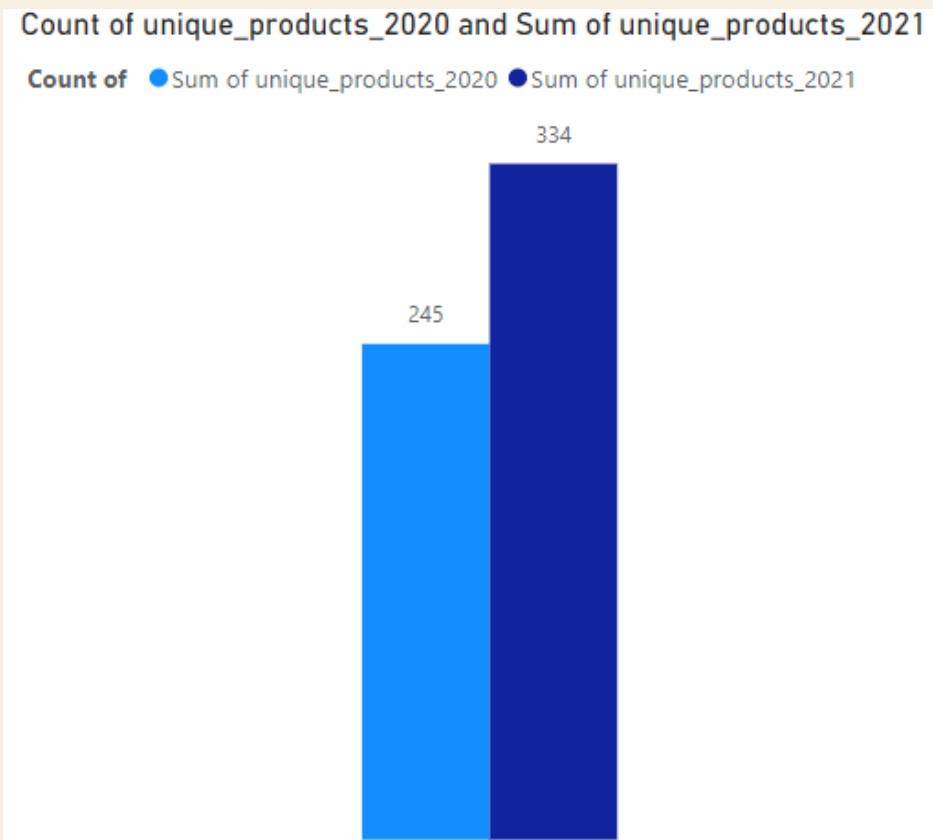
The final output contains these fields: unique_products_2020 unique_products_2021 percentage_chg

Output -

	unique_products_2020	unique_products_2021	percentage_change
▶	245	334	36.33

VISUAL – COLUMN CHART

In FY 2020, we had a total of 245 products, but in FY 2021, our count increased by 36% to 334 products.

Count of unique_products_2020 and Sum of unique_products_2021

REQUEST 3

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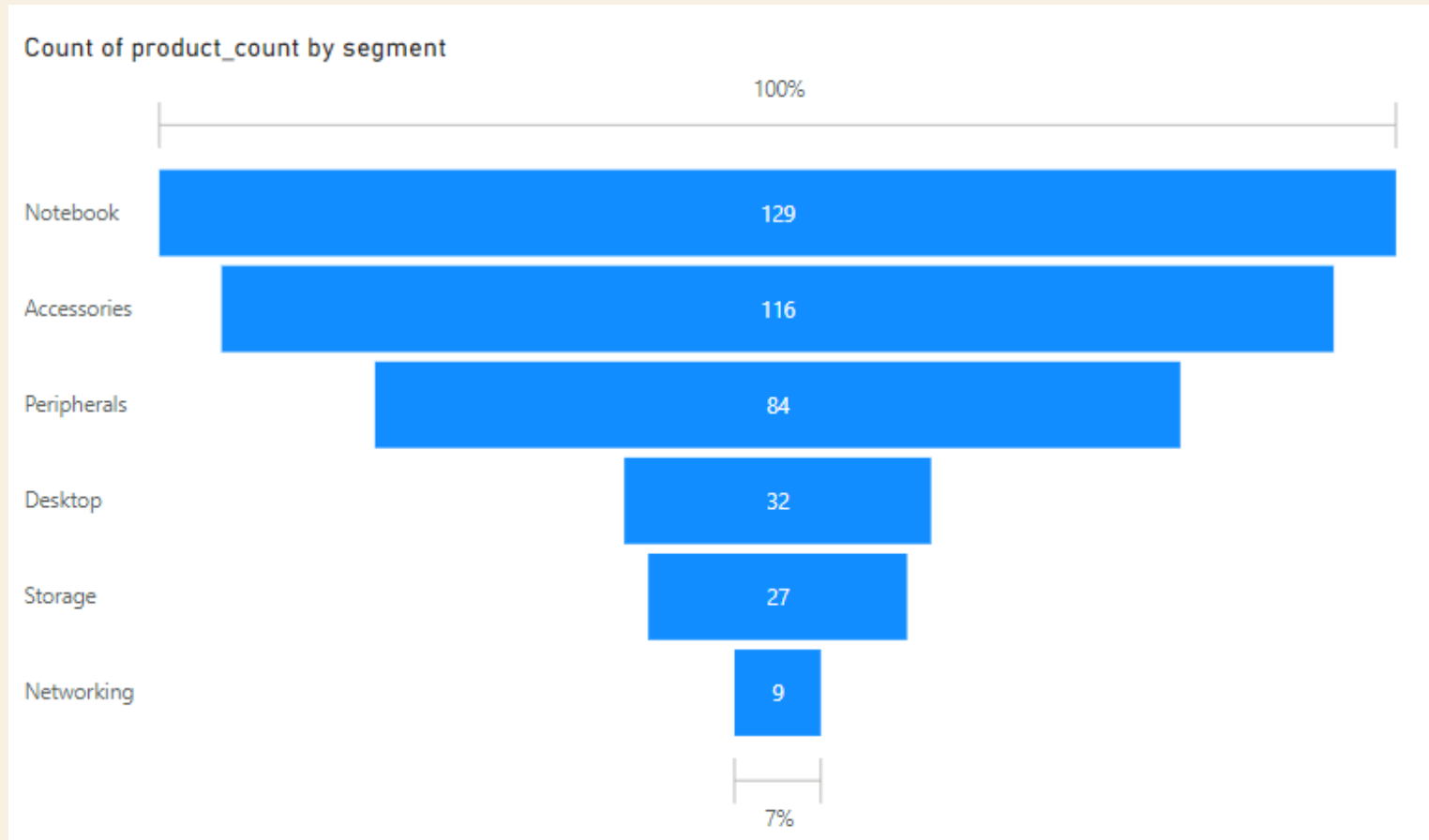
The final output contains 2 fields: Segment, product_count

Output -

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

VISUAL – FUNNEL

Using funnel chart to display count of the unique products by segment.

Count of product_count by segment

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

Output -

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

VISUAL – DUMBBELL CHART

In 2021, we were mainly focusing on diversifying our accessories segment. We introduced 34 new products to the market in accessories.

Sum of product_count_2020 and Sum of product_count_2021 by difference and segment
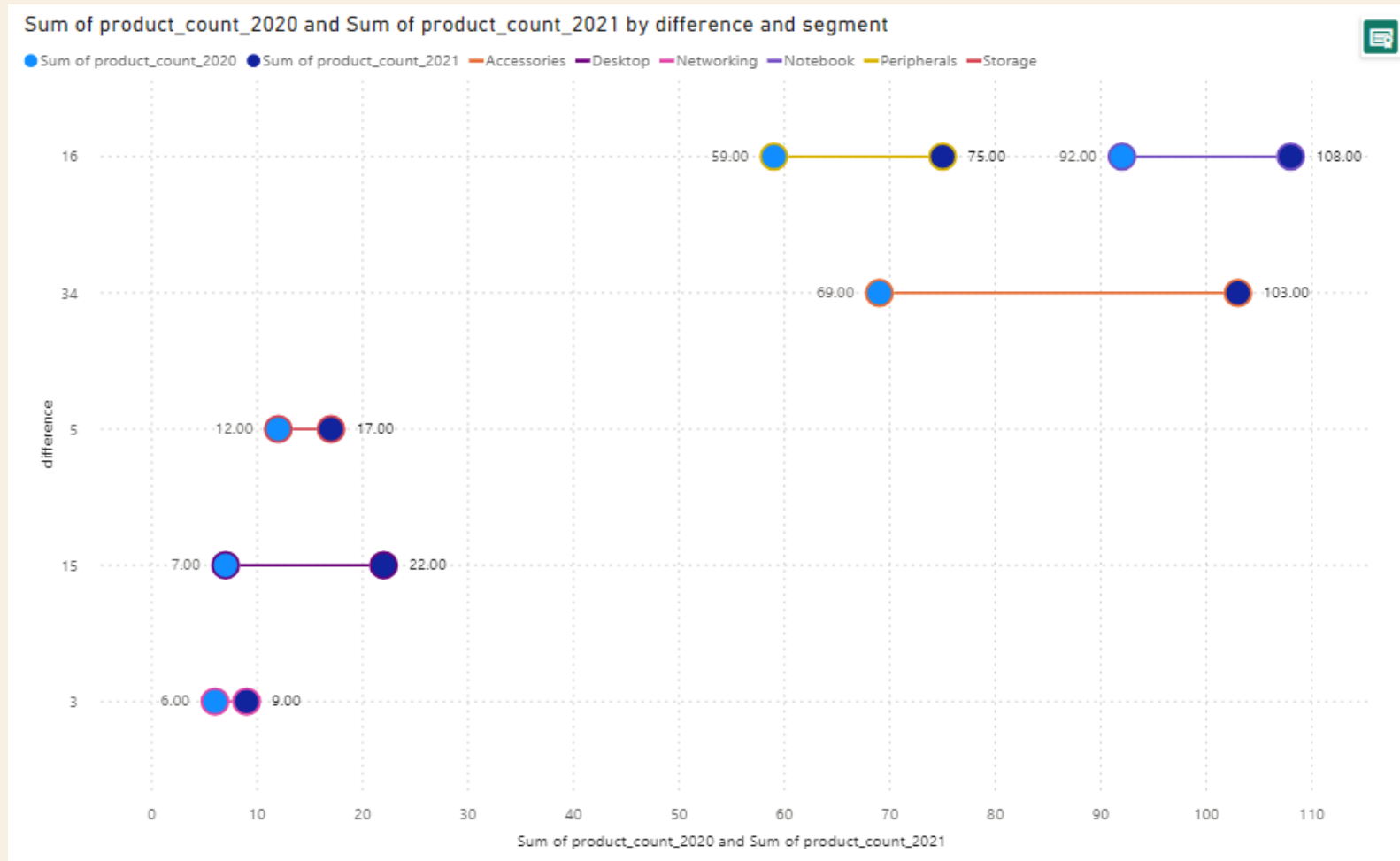
REQUEST 5

Get the products that have the highest and lowest manufacturing costs.

The final output should contain these fields: product_code product manufacturing_cost

Output -

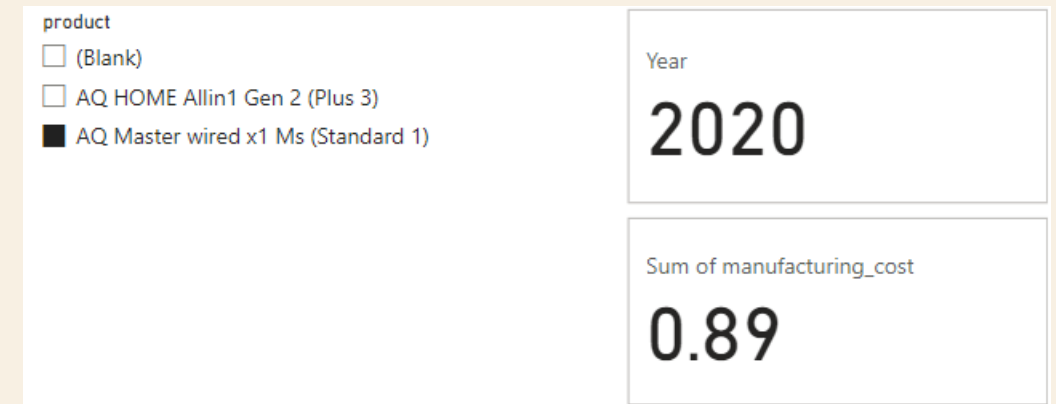| product_code	product	cost_year	manufacturing_cost
A6120110206	AQ HOME Allin1 Gen 2 (Plus 3)	2021	240.5364
A2118150101	AQ Master wired x1 Ms (Standard 1)	2020	0.8920

VISUAL – SLICER AND NEW CARD

Which of our products has the highest manufacturing cost?
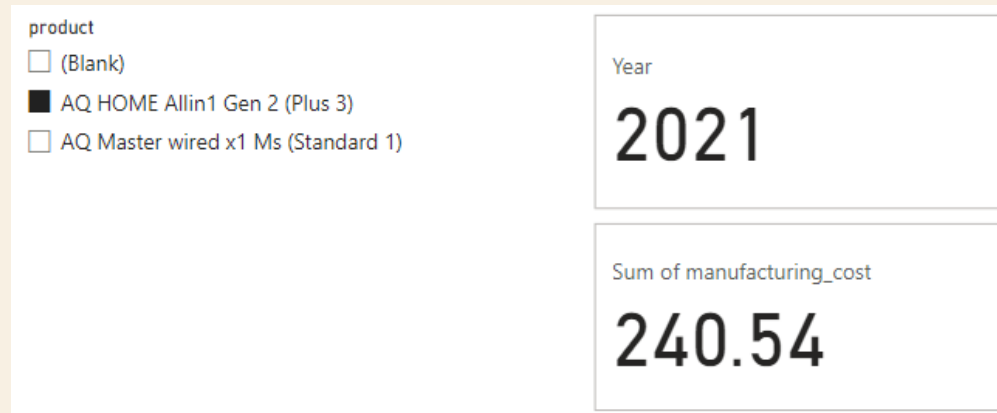
Personal Desktop - AQ HOME Allin 1 Gen 2 (Plus 3)

Which of our products has the lowest manufacturing cost?

Mouse – AQ Master wired x1 Ms (Standard 1)

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

Output -

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

VISUAL – CLUSTERED COLUMN CHART

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%.

Average_discount_percentage by customer
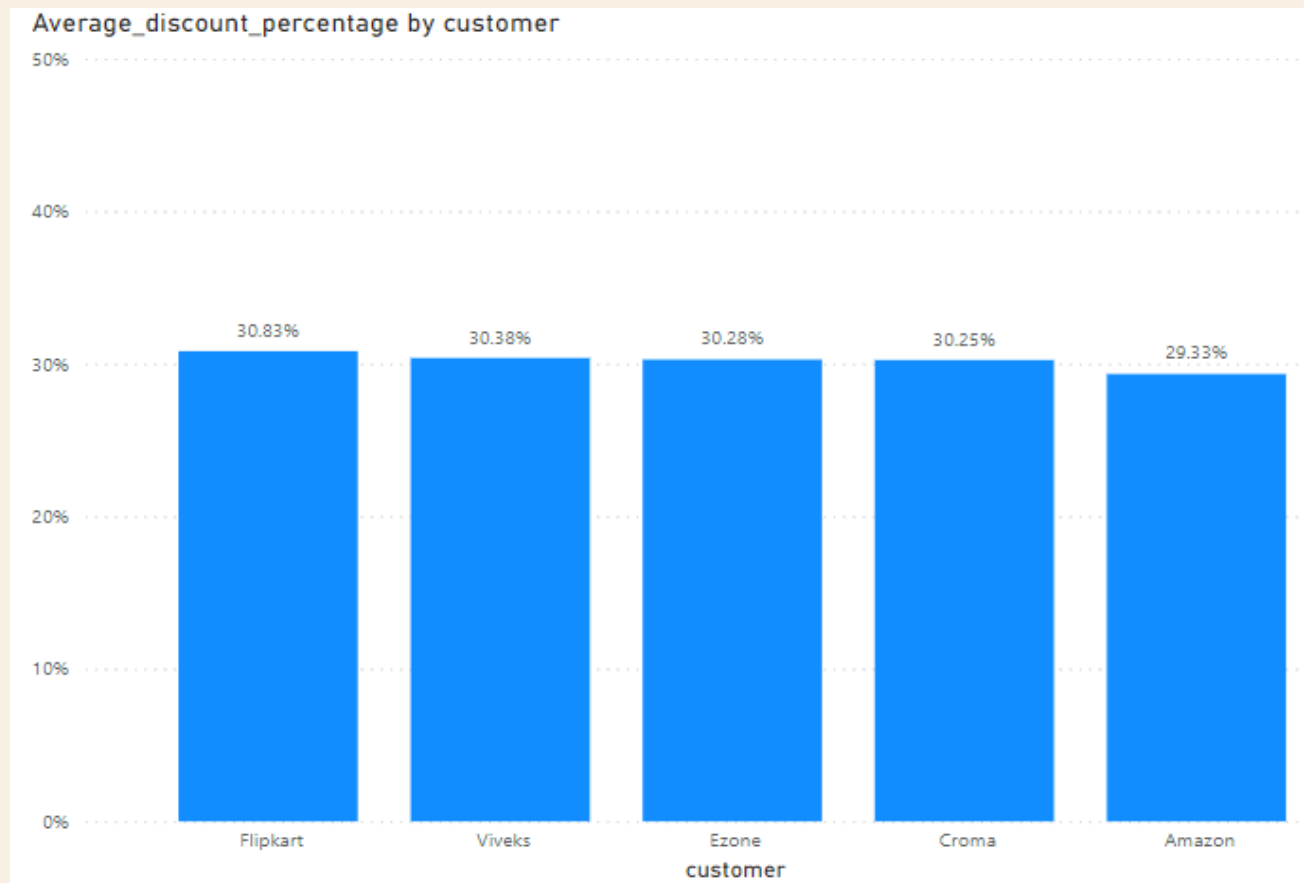
REQUEST 7

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
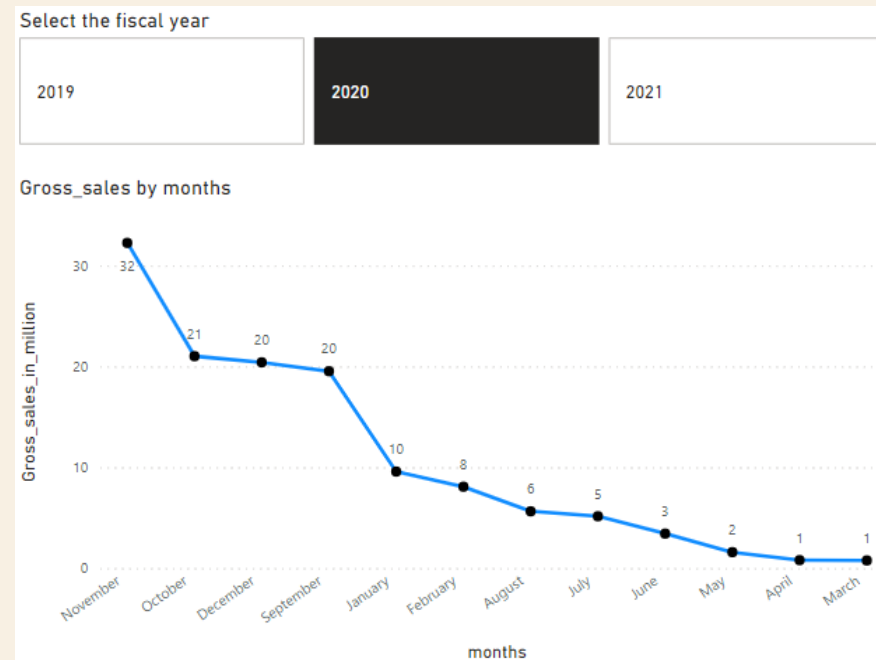
Output -

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

VISUAL – LINE CHART AND NEW SLICER

For Atliq Exclusive, 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.
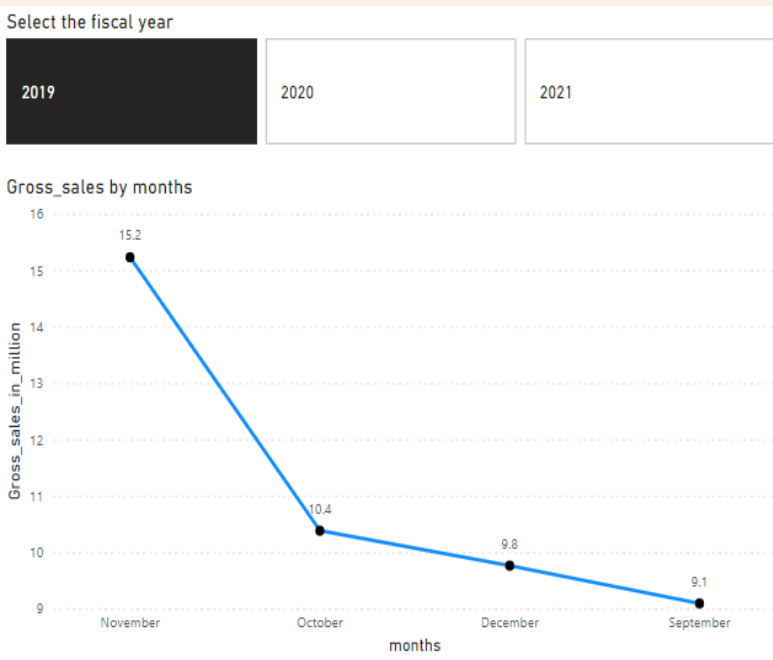
FY - 2019

FY - 2020
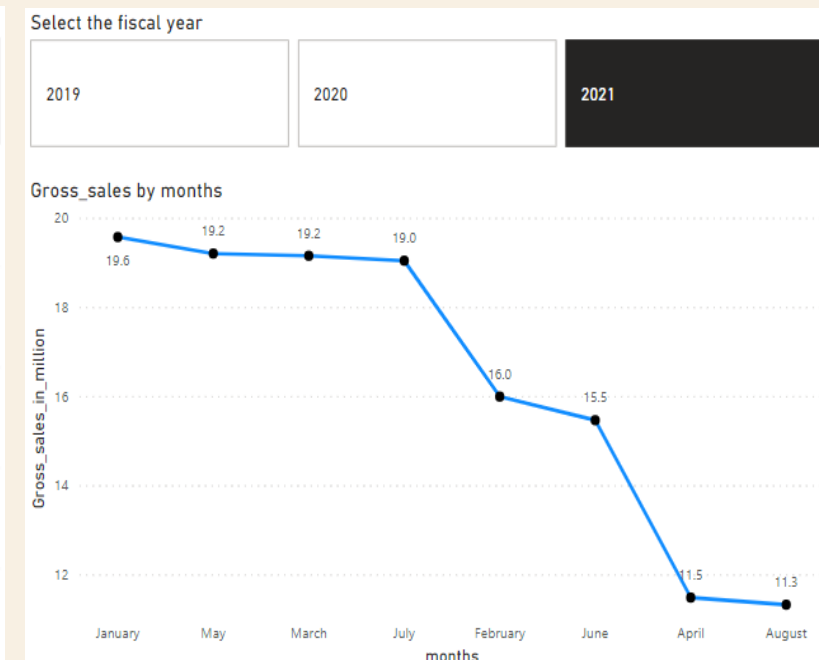
FY - 2021

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

Output -

quarter	total_sold_quanity_in_millions
Q1	7.01
Q2	6.65
Q4	5.04
Q3	2.08

VISUAL – DONUT CHART

Again, we can see the COVID-19 really hit our sales hard in March, April, and May of 2020. We sold way fewer products, just 2.1 million. But things started looking up quickly, even though the pandemic was still going on. This bounce back in the next quarter was probably because a lot of students needed computers and accessories for online classes.

Total_sold_quanity_in_millions by quarter

2.08 (10.01%)
7.01 (33.73%)
5.04 (24.25%)
6.65 (32%)

quarter
● Q1
● Q2
● Q4
● Q3
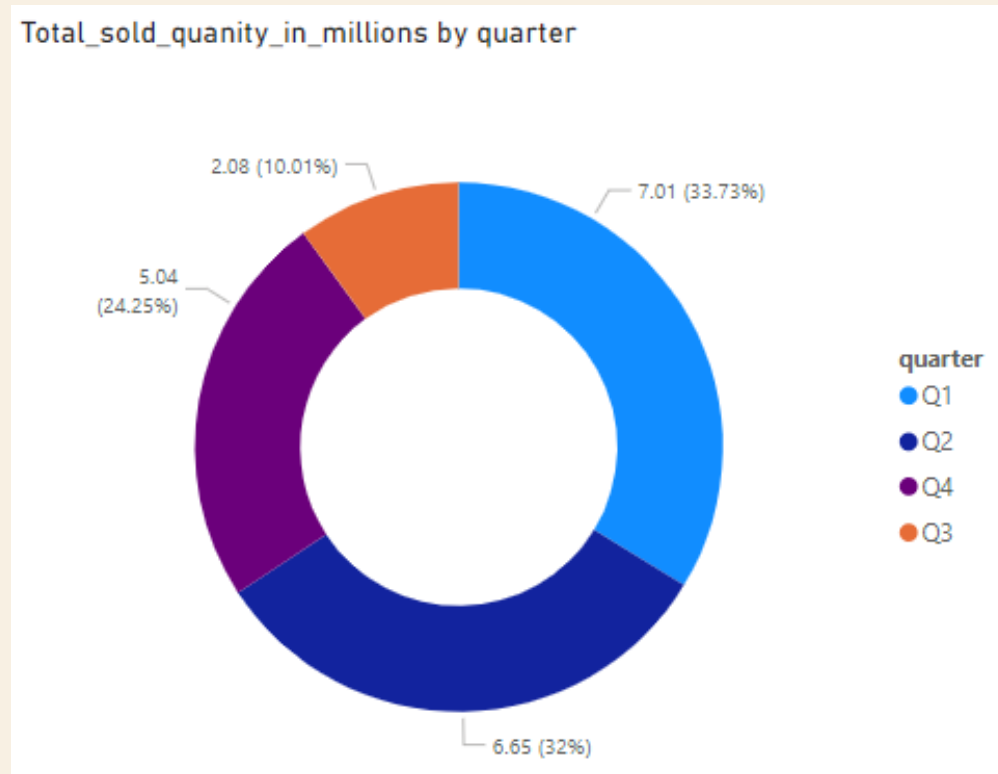
REQUEST 9

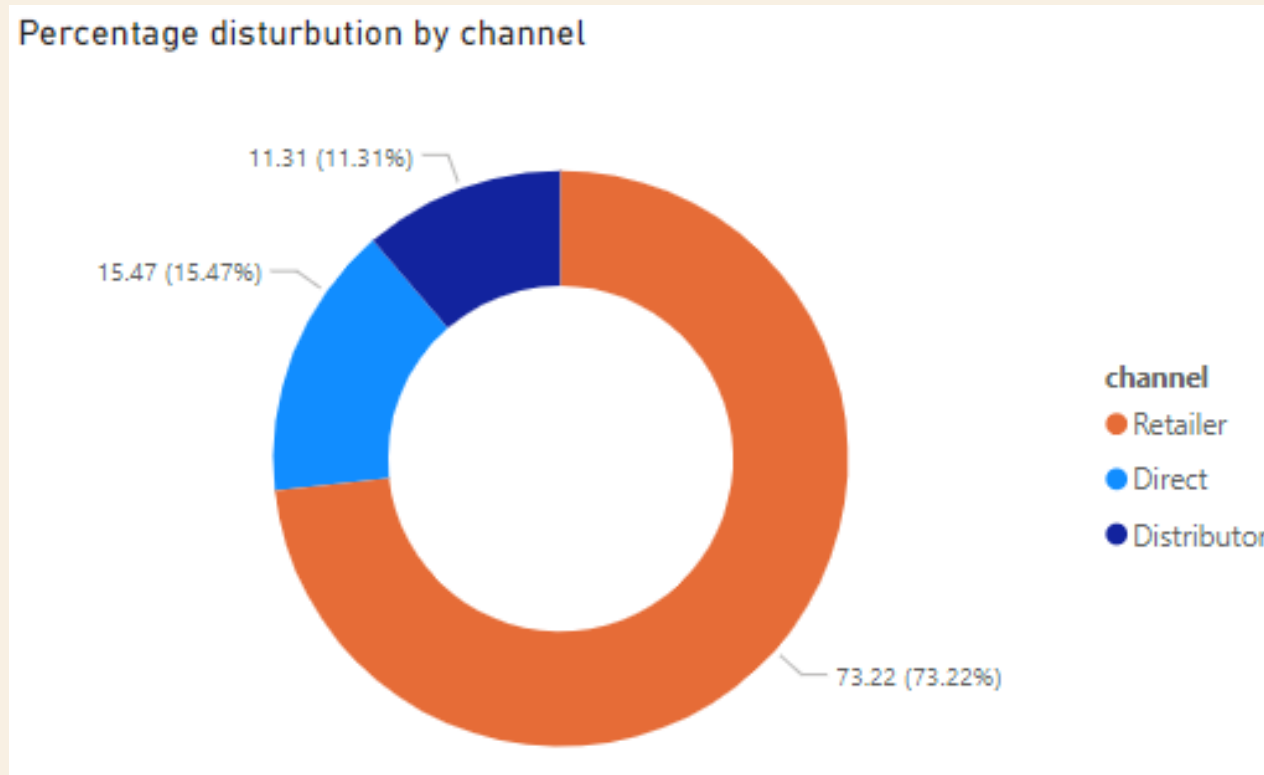Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution?

The final output contains these fields: channel gross_sales_mln percentage

Output -

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

VISUAL – DONUT CHART

Most of our sales took place via retailers, which is 73% of the total sales. Only a very small percentage of our sales happened through direct and distributor channels.

Percentage disturbution by channel

11.31 (11.31%)

15.47 (15.47%)

channel
- Retailer
- Direct
- Distributor

73.22 (73.22%)

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

Output -

| division	product_code	product	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

VISUAL – STACKED COLUMN

- The top 3 selling products in N&S were **pen drives**, which were around 7 lakh in quantity.
- The top 3 selling products in PC were **personal laptops**, which were around 17000 in quantity.
- The top 3 selling products in P&A were **mouse**, which were around 4 lakh in quantity.
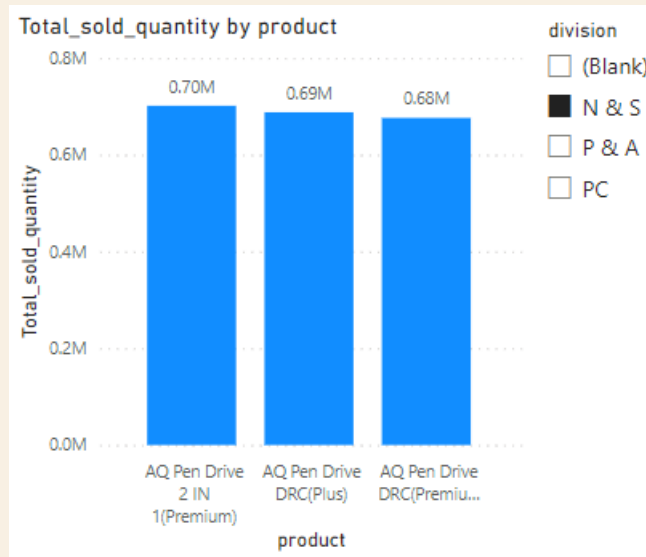
N&S
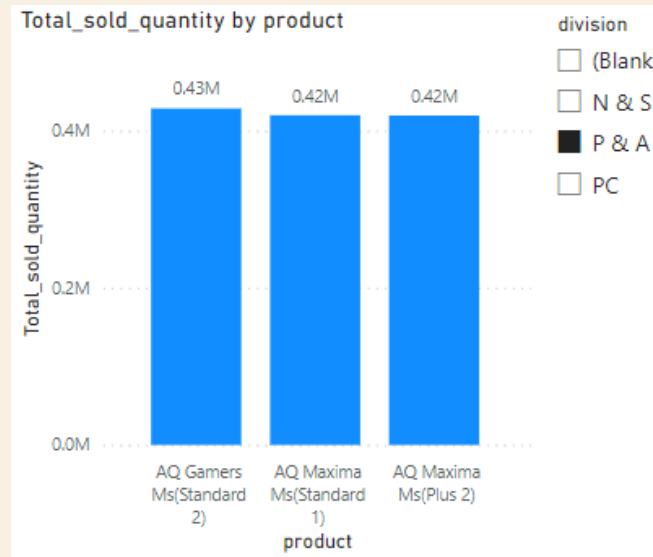
P & A
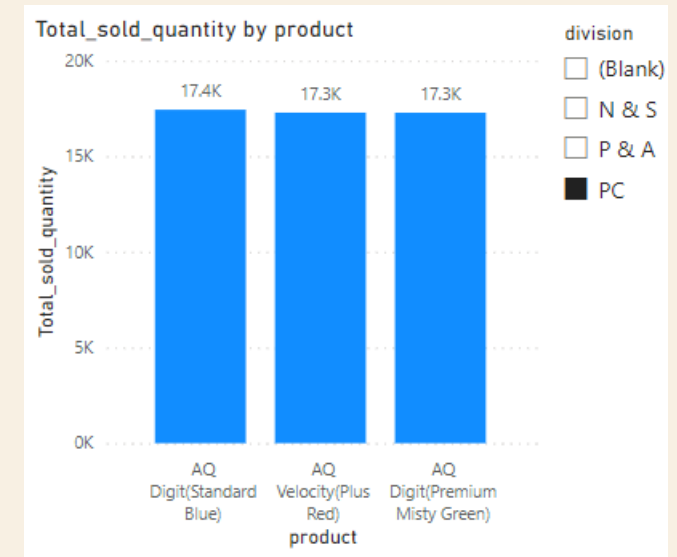
PC

THANK YOU

Presentation by Anup Batakurki