



Atliq Hardware

Consumer Goods Ad-hoc Insights

- Presented by Shehryar Gondal



SQL Project Challenge

Created by Shehryar Gondal



Agenda

- Background/Context
- Getting familiar with Atliq's Business – Their Markets and Product lines
- Getting familiar with the input data
- Ad-hoc requests along with the queried results, visualizations and Insights

Background/Context

Our Company

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

Background

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

Problem

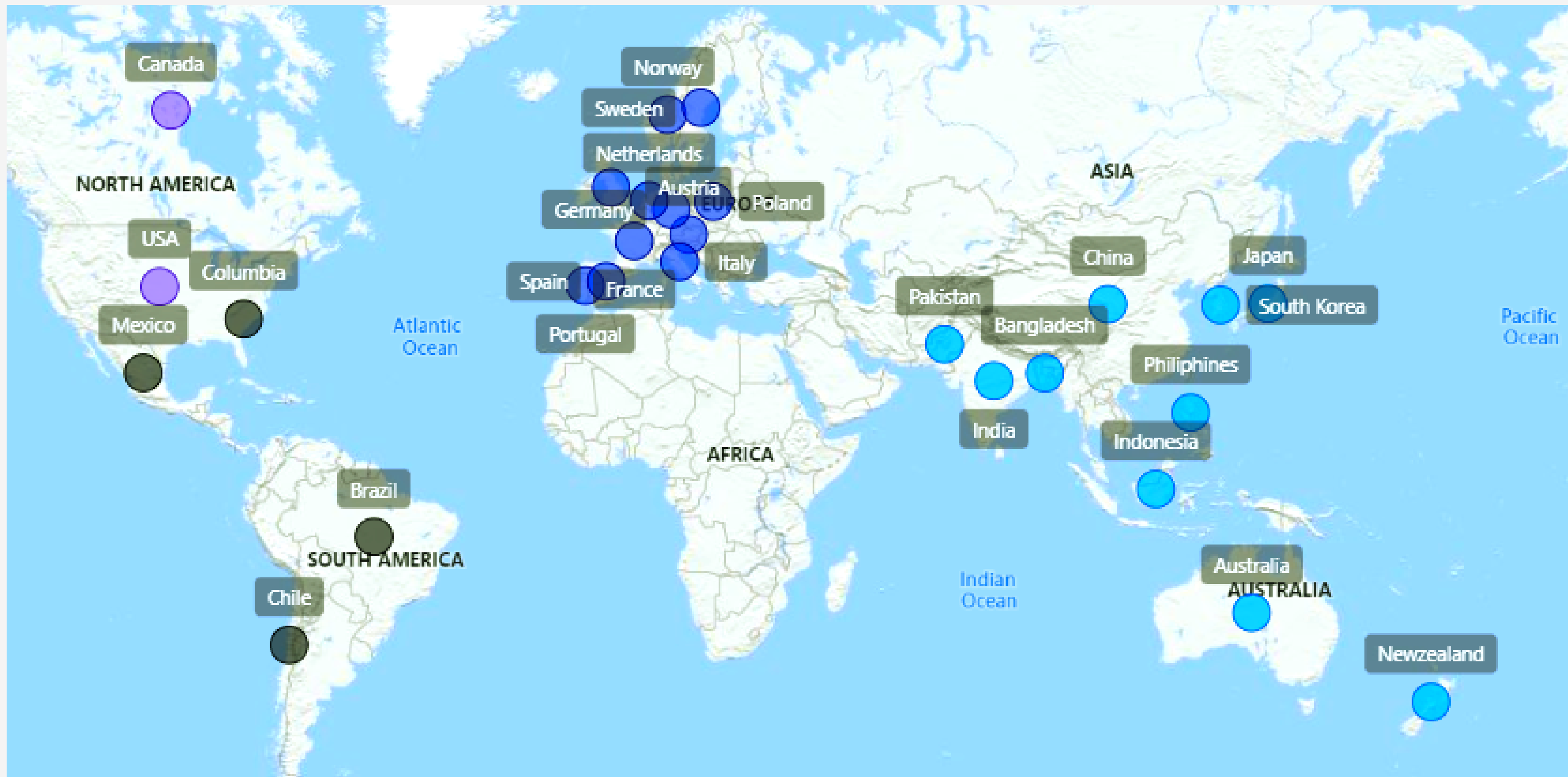
There are 10 ad-hoc requests for which the company needs insights.

Approach

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

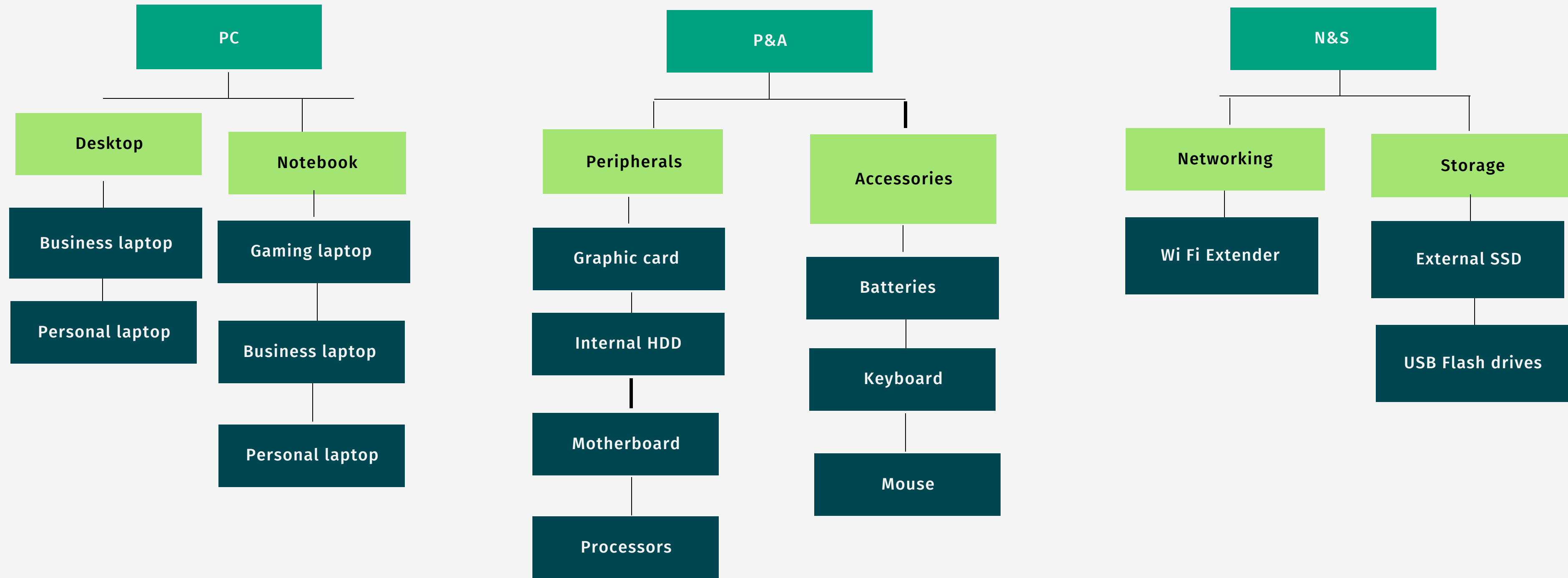
Atliq's Markets

Getting familiar with Atliq's Business –Their Markets and Product lines.



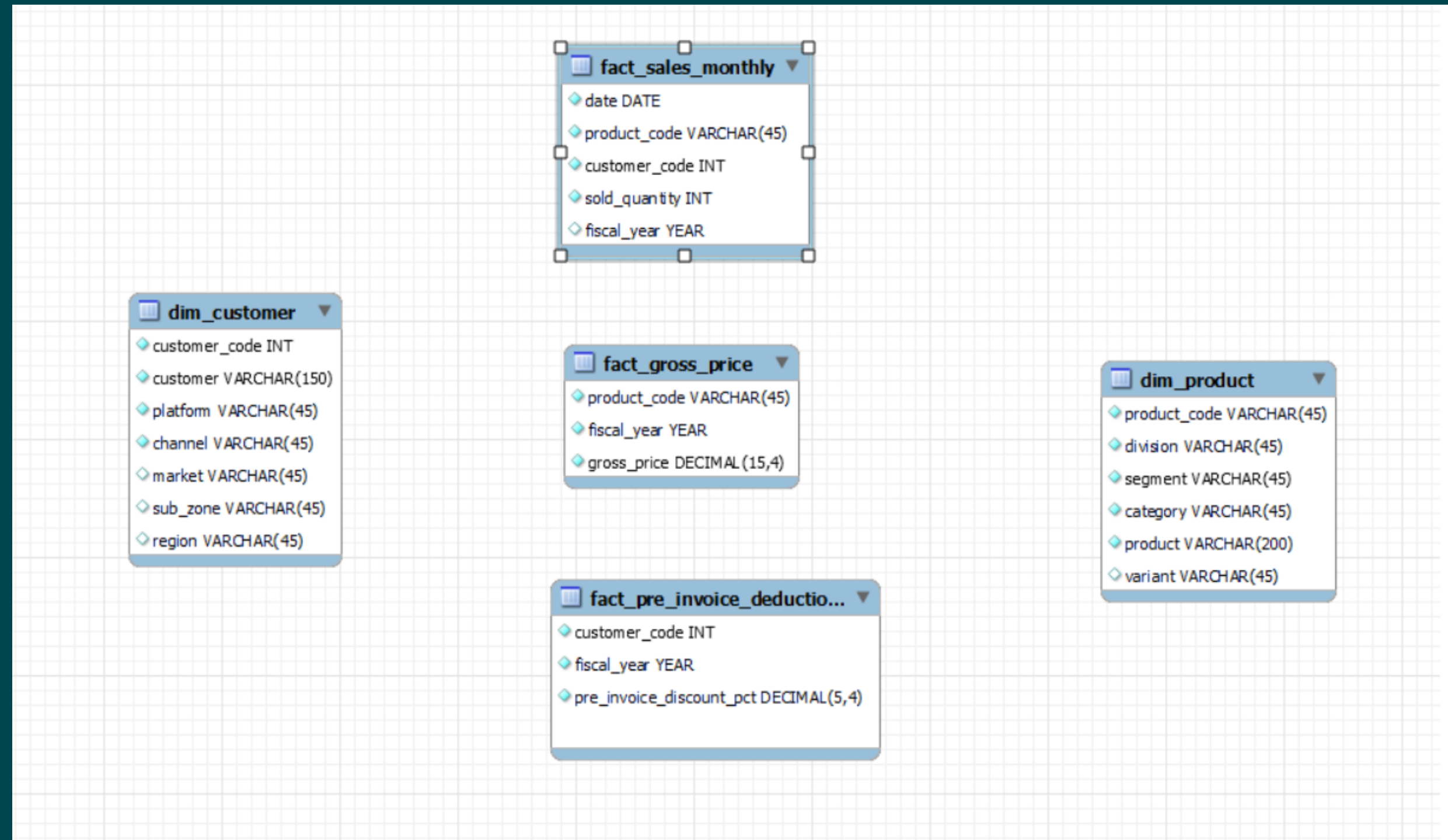
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Atliq's Product Division



Getting familiar with the input data

- Input data consists of sales data for FY 2020 and FY 2021, along with different other dimension tables like customer details, product details, etc.



Ad-hoc requests, queried results, Insights and visualization



REQUEST 1:

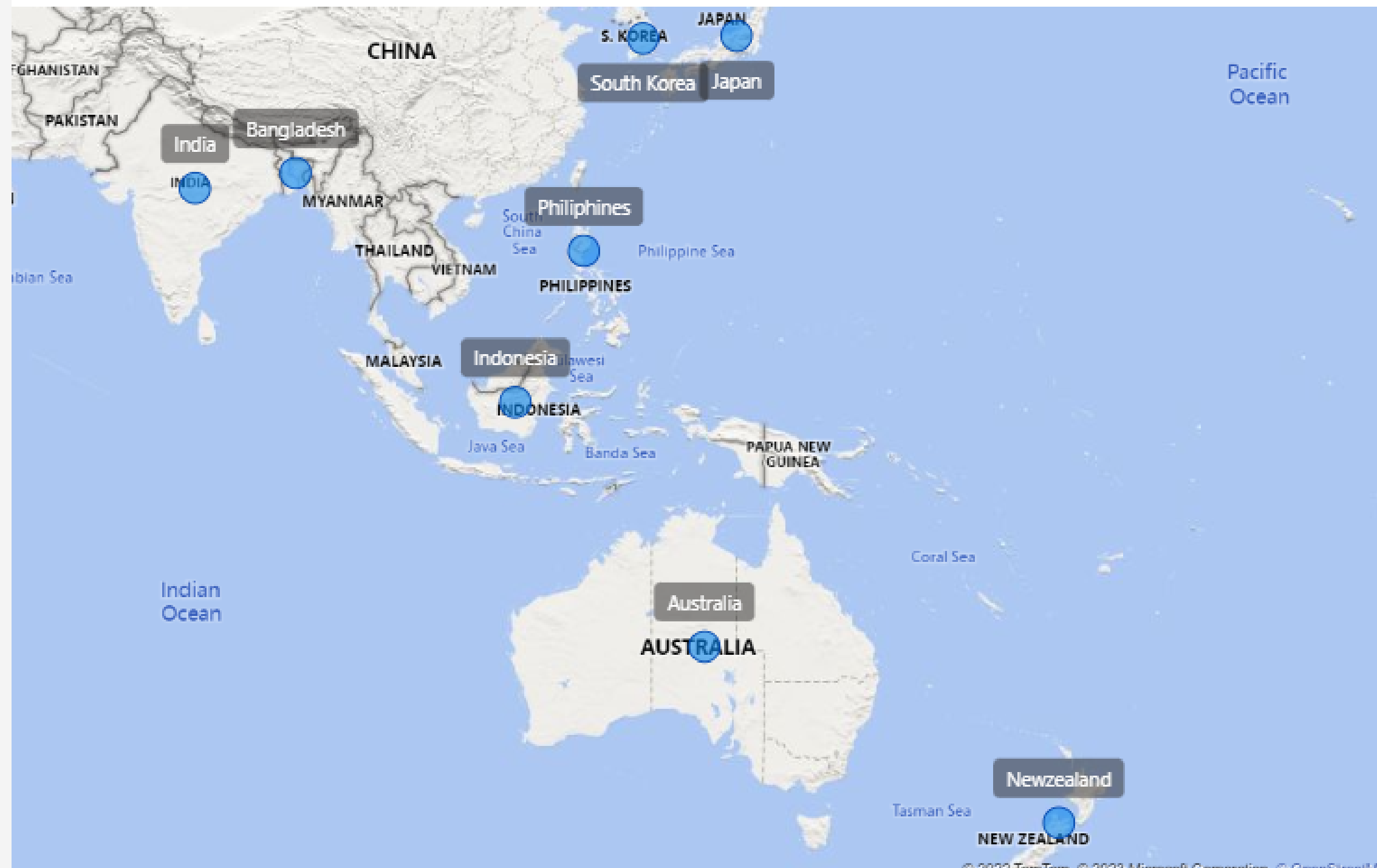
Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC region.

OUTPUT

	customer	Market	region
▶	Atliq Exclusive	South Korea	APAC
	Atliq Exclusive	Philippines	APAC
	Atliq Exclusive	Newzealand	APAC
	Atliq Exclusive	Japan	APAC
	Atliq Exclusive	Indonesia	APAC
	Atliq Exclusive	India	APAC
	Atliq Exclusive	Bangladesh	APAC
	Atliq Exclusive	Australia	APAC

Insights

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

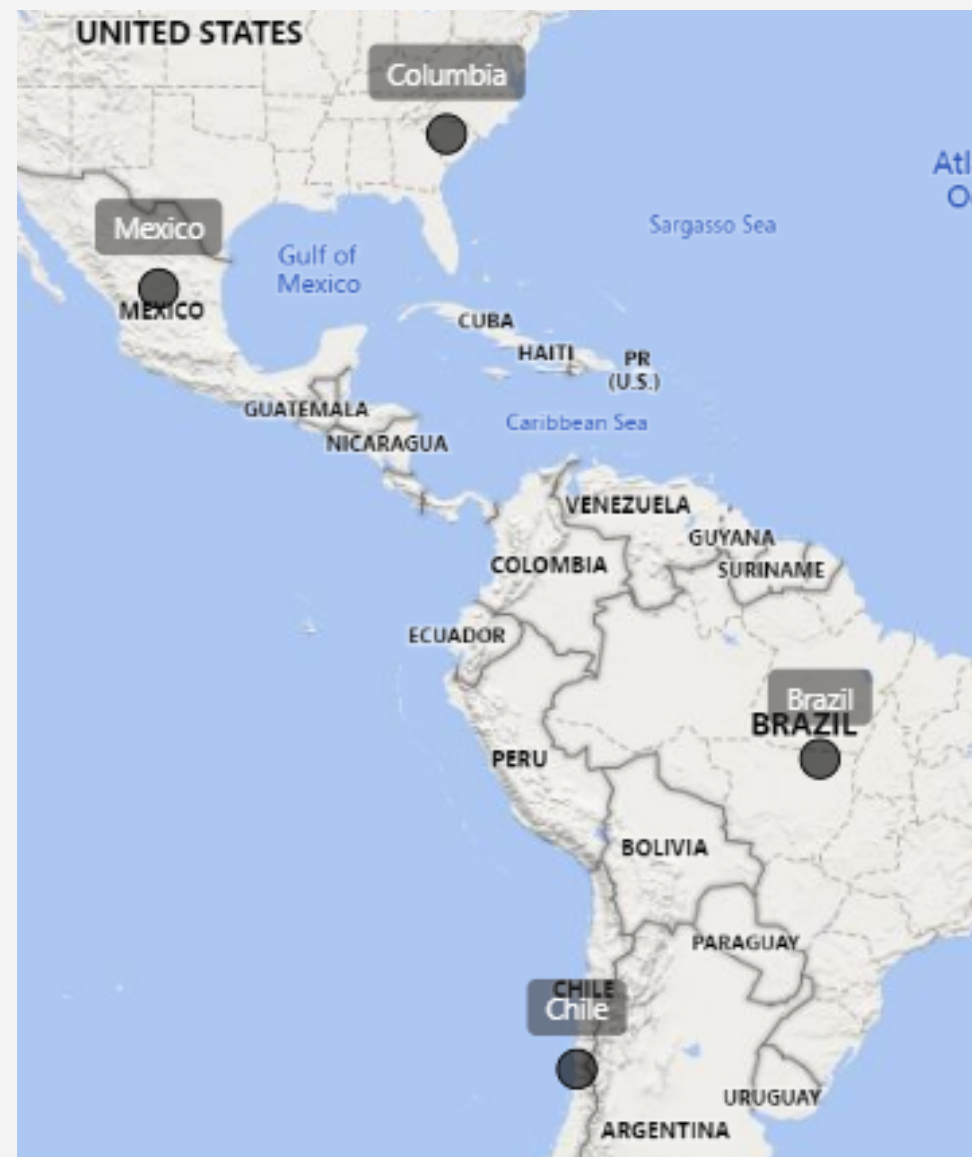


Regions_wise_Market

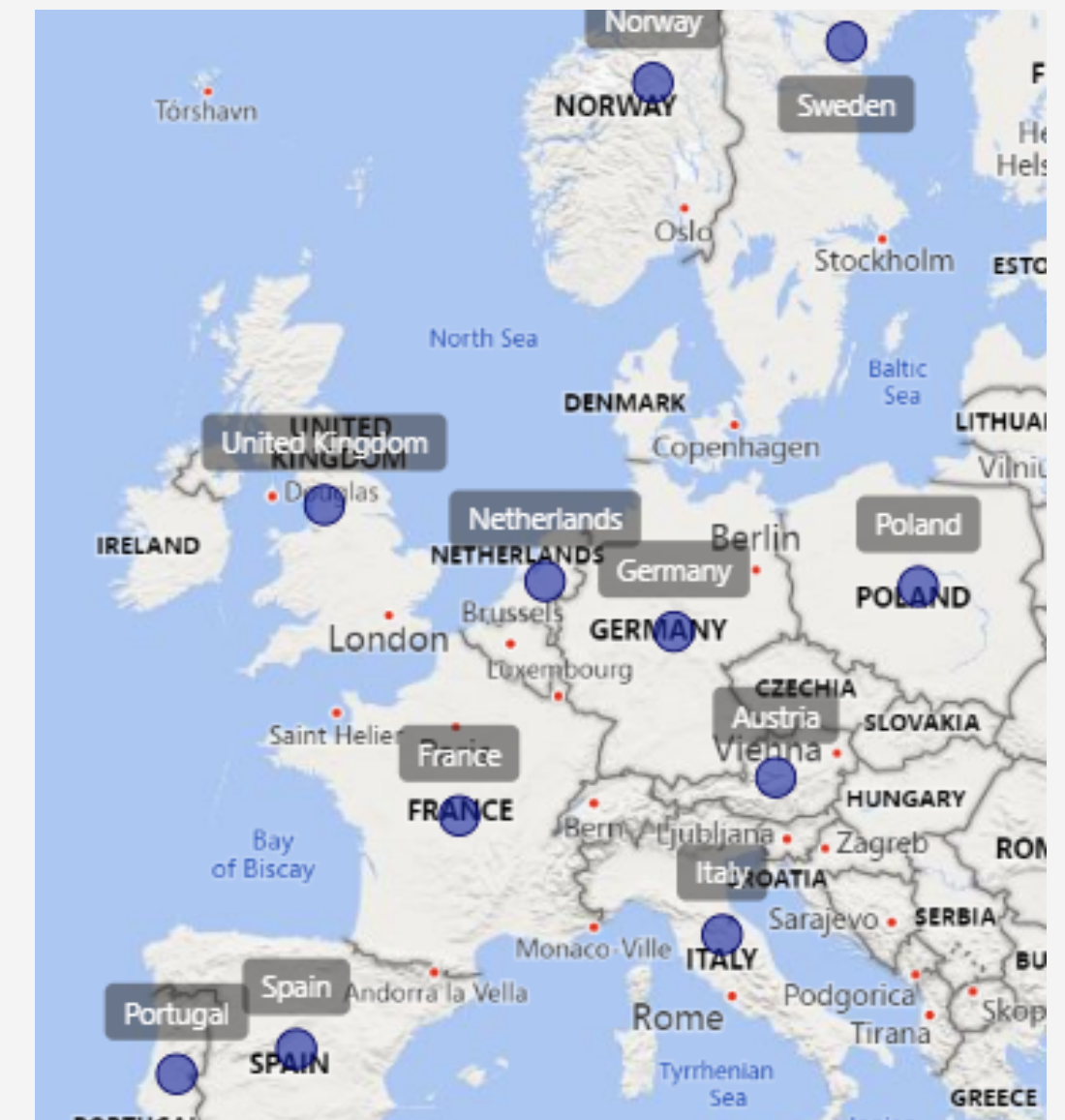
NA Region



LATAM Region



EU Region



REQUEST 2:

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

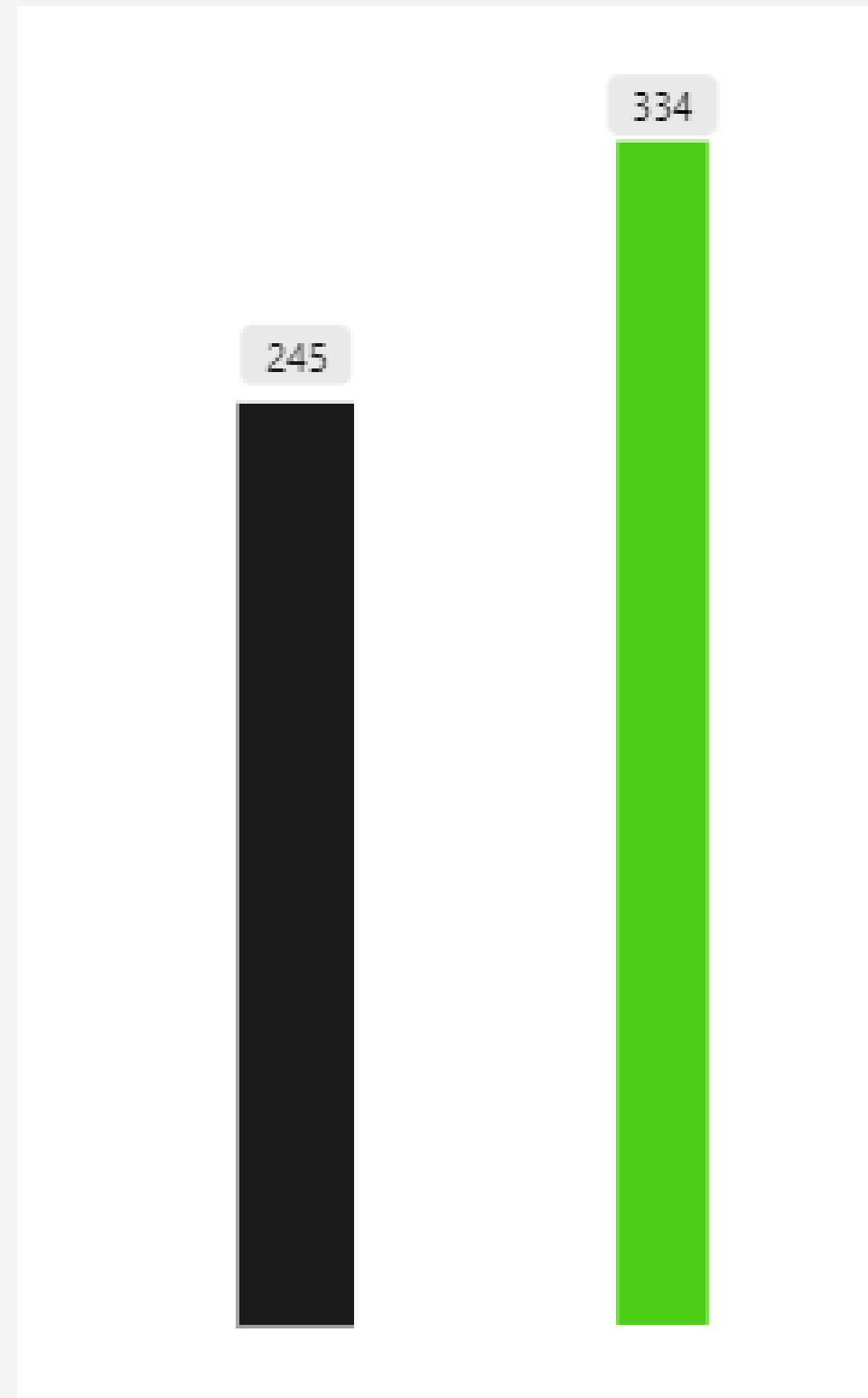
- unique_products_2020
- unique_products_2021
- percentage_chg

OUTPUT

	unique_products_2020	unique_products_2021	percentage_chg
►	245	334	36.33%

Insights

- The continuous innovation and introduction of new products to the market is a positive indicator of our success. **In Fiscal 2020**, our product portfolio consisted of 245 offerings, but in the following fiscal year, our product count saw a **36%** increase, totaling 334 offerings.



- Unique_product_2020
- Unique_product_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:

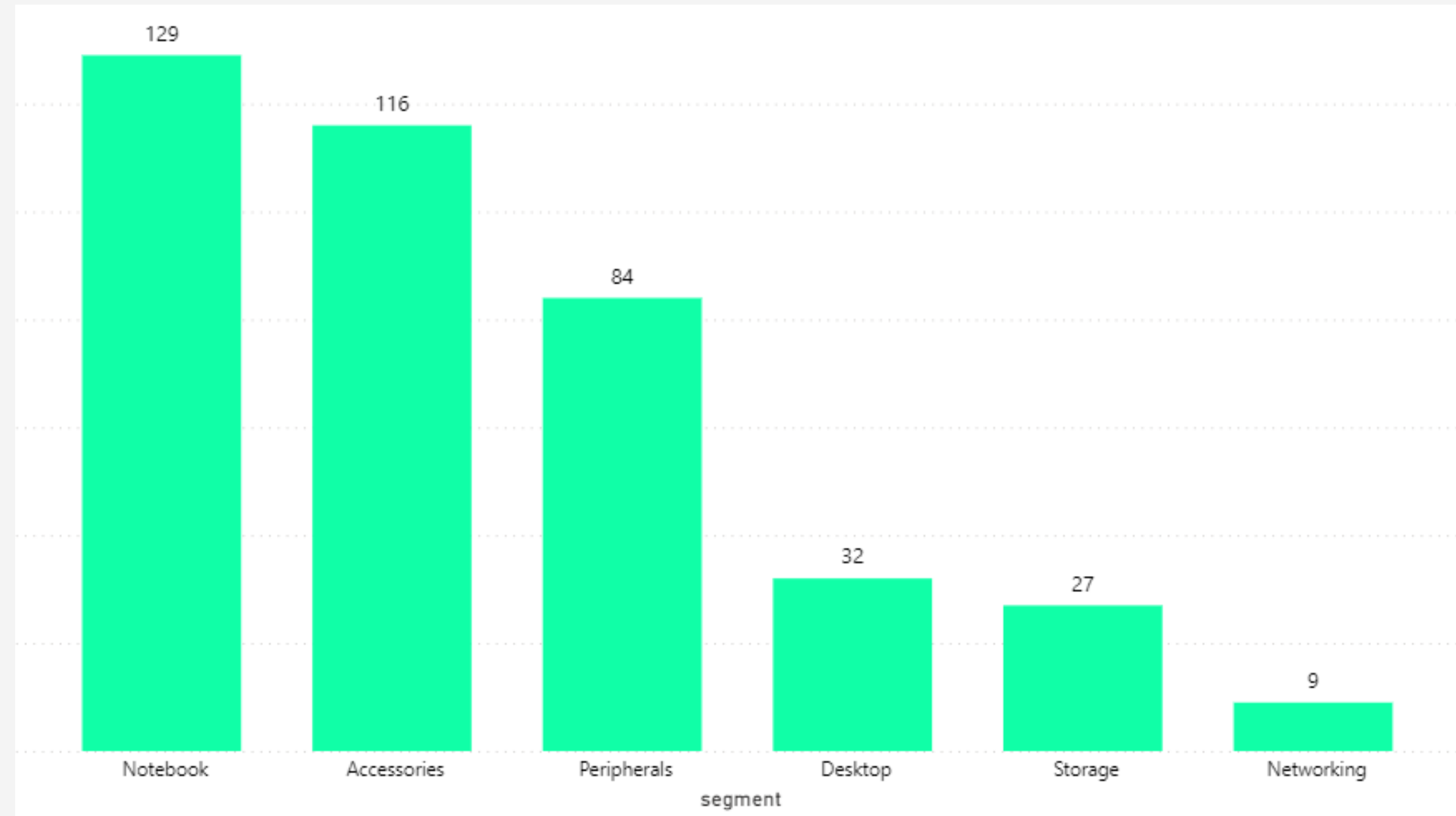
Segment
product_count

OUTPUT

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

Insights

- Our product offerings are organized into three segments: Notebook, Peripherals, and Accessories, each with an average of **110 products**. However, there is room for expansion in the Desktop, Networking, and Storage segments, which currently have an average of only **23 products per segment**, highlighting the need for further diversification in our production.



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

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

	Cost	product_code	product	manufacturing_cost
►	Highest	A6120110206	AQ HOME Allin1 Gen 2	240.54
	Lowest	A2118150101	AQ Master wired x1 Ms	0.89

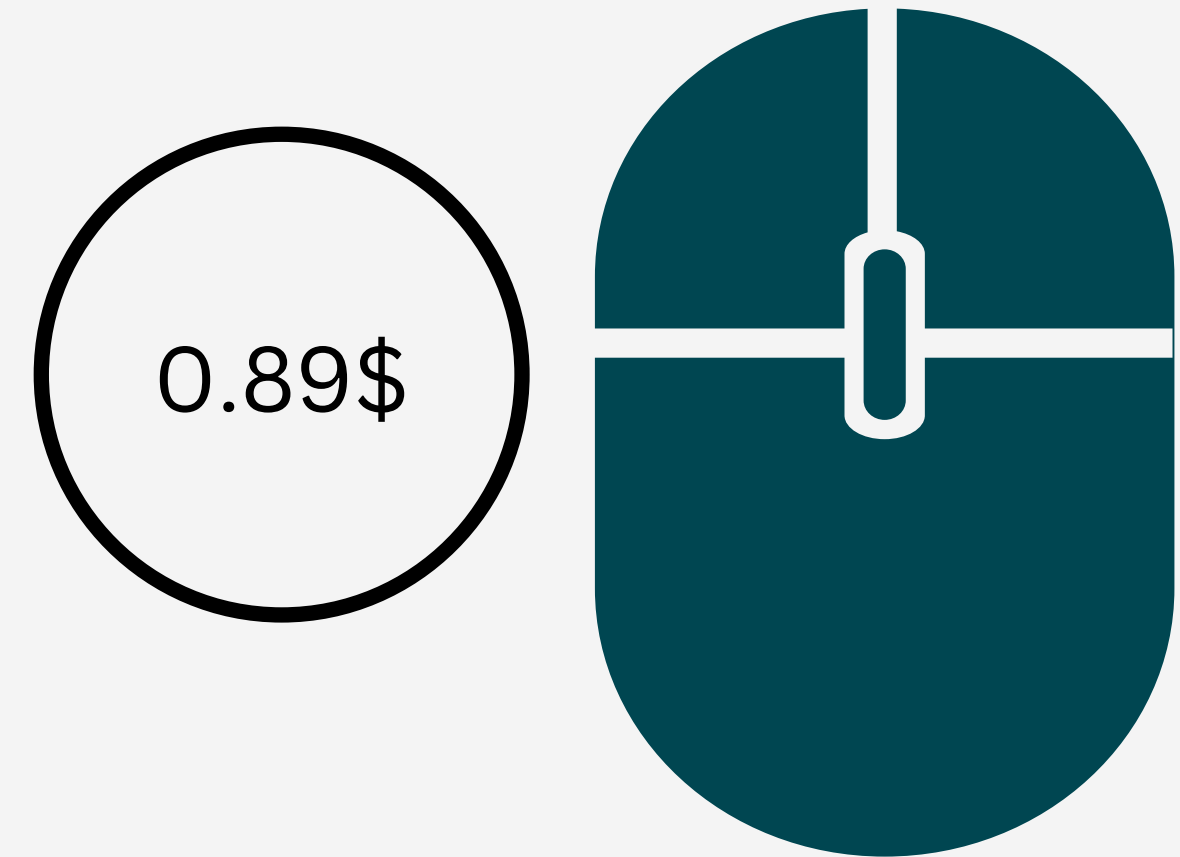
Insights

- Which of our products has the highest manufacturing cost?



AQ HOME Allin1 Gen 2 (Plus 3) Personal
Desktop

- Which of our products has the lowest manufacturing cost?



AQ Master wired x1 Ms (Standard 1)
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

OUTPUT

	customer_code	customer	average_discount_percentage
▶	90002009	Flipkart	0.31%
	90002006	Viveks	0.30%
	90002003	Ezone	0.30%
	90002002	Croma	0.30%
	90002016	Amazon	0.29%

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 highperforming months and take strategic decisions. The final report contains these columns:

Month

Year

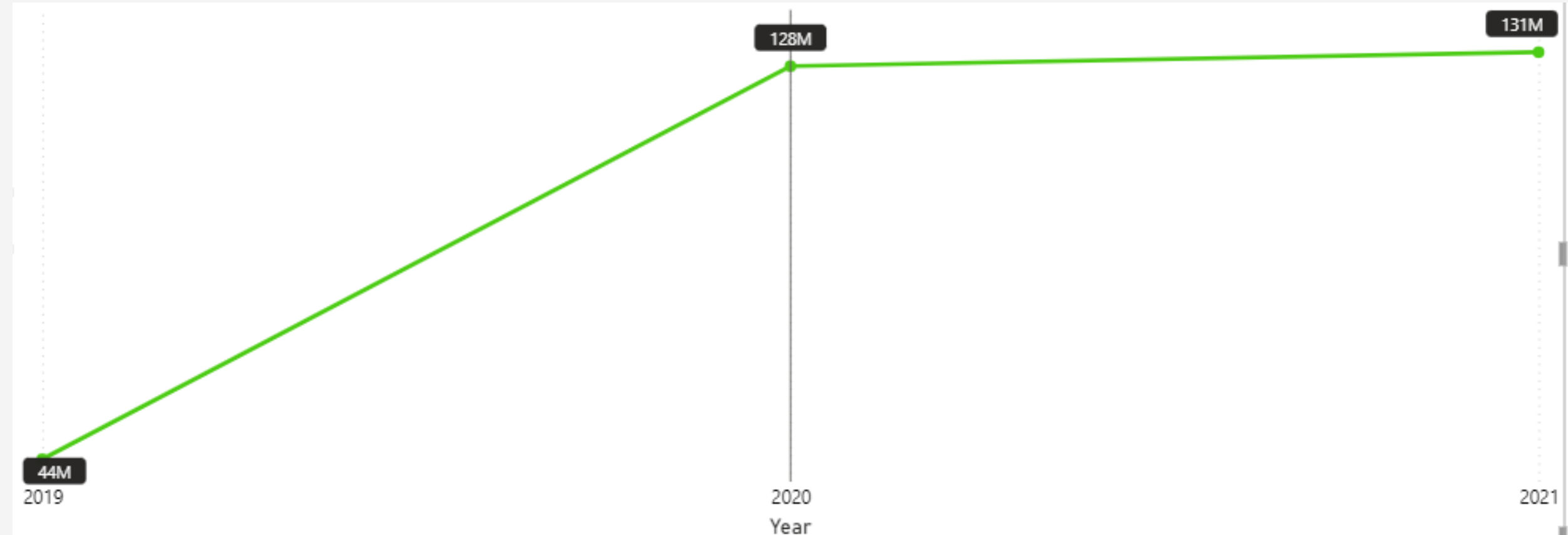
Gross sales Amount

OUTPUT

	Month	Year	Gross_sales_Amount
▶	1	2020	9584951.94
	1	2021	19570701.71
	2	2020	8083995.55
	2	2021	15986603.89
	3	2020	766976.45
	3	2021	19149624.92
	4	2020	800071.95
	4	2021	11483530.30
	5	2020	1586964.48
	5	2021	19204309.41
	6	2020	3429736.57
	6	2021	15457579.66
	7	2020	5151815.40
	7	2021	19044968.82
	8	2020	5638281.83
	8	2021	11324548.34
	9	2019	9092670.34
	9	2020	19530271.30
	10	2019	10378637.60
	10	2020	21016218.21
	11	2019	15231894.97
	11	2020	32247289.79
	12	2019	9755795.06
	12	2020	20409063.18

Insights

- For Atliq Exclusive Sales , year of 2019 get revenue of **44M** and year of 2020 get revenue of **128M** and year of 2021 get revenue of **131M**.



REQUEST 8:

n which quarter of 2020, got the maximum total_sold_quantity?

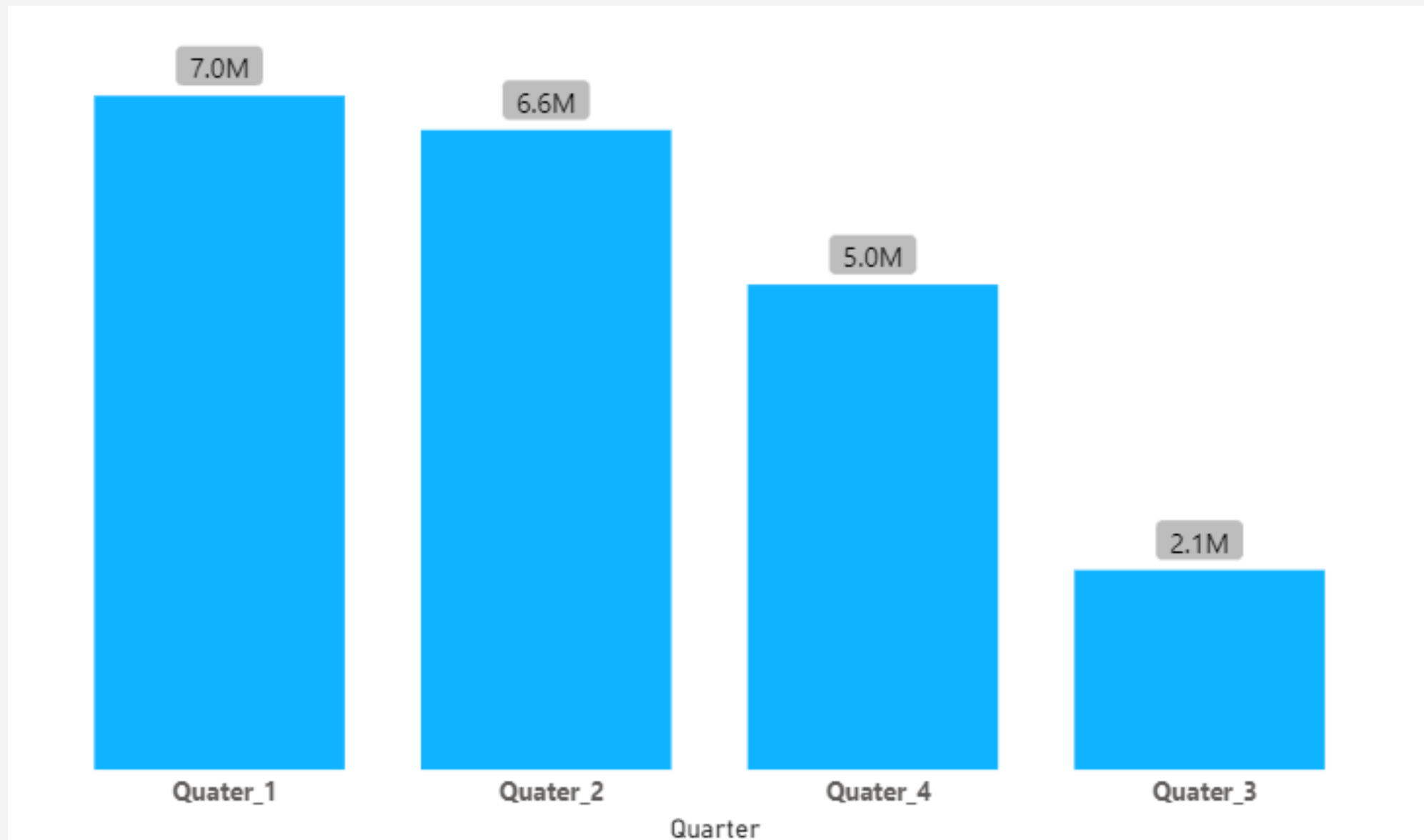
The final output contains these fields sorted by the

total_sold_quantity: Quarter
total_sold_quantity

OUTPUT

	Quarter	total_sold_quantity
▶	Quater_1	7005619
	Quater_2	6649642
	Quater_4	5042541
	Quater_3	2075087

Insights



- "This observation reinforces the previous analysis regarding the impact of COVID-19 on our sales. During Q3 of the fiscal year 2020, which corresponds to the months of March, April, and May when the pandemic was at its peak, we recorded a decrease in sold quantities to 2.1 million. Despite the ongoing crisis, we achieved an early recovery in Q4, likely due to the heightened demand for hardware such as desktops and laptops, as a result of the shift towards online education. Additionally, there was a significant demand for computer accessories during this period."

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

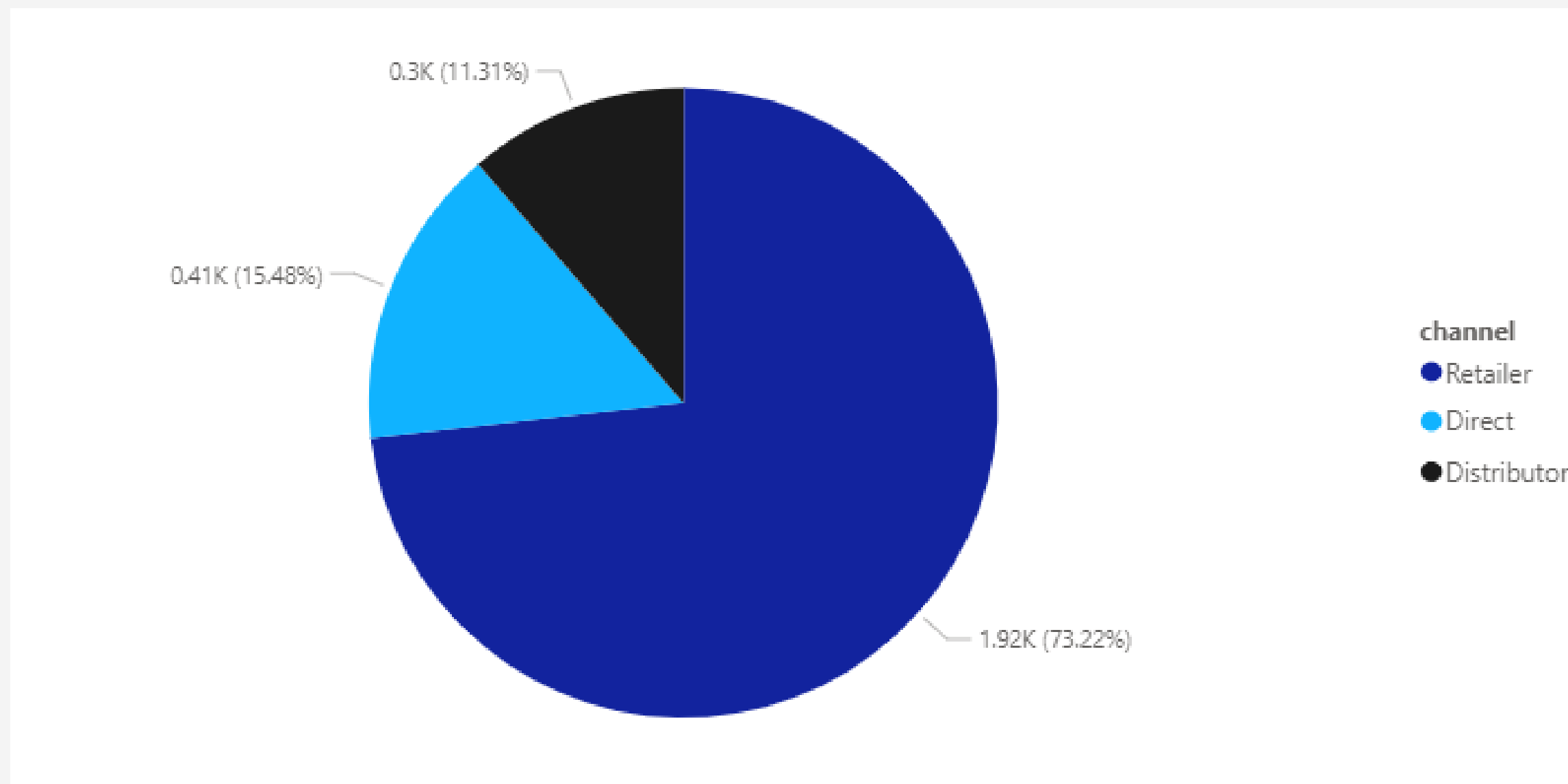
percentage

OUTPUT

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

Insights

- The majority of our sales took place via retailers, which is 75% of the total sales. Only a very small percentage of our sales happened 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:

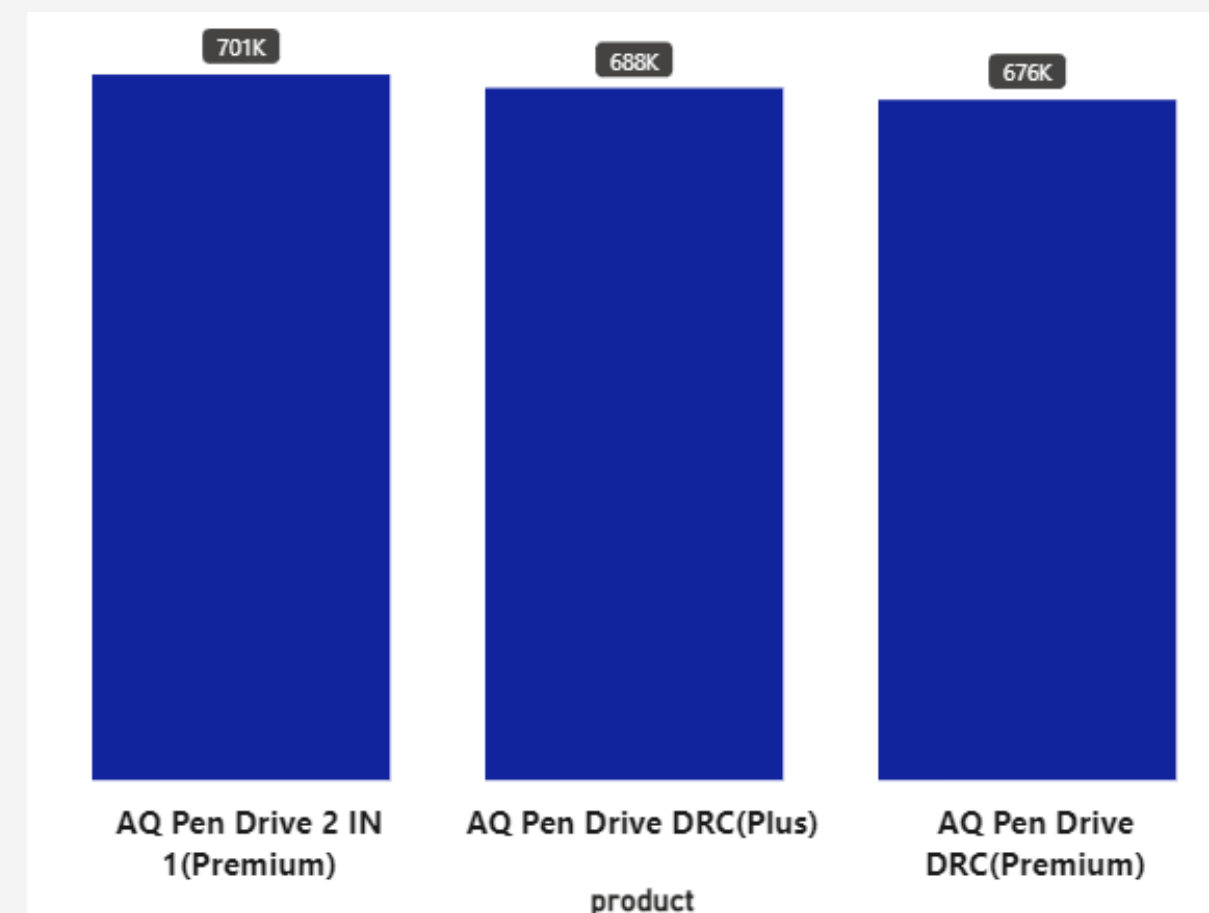
division
product_code
Product
total_sold_quantity
rank_order

OUTPUT

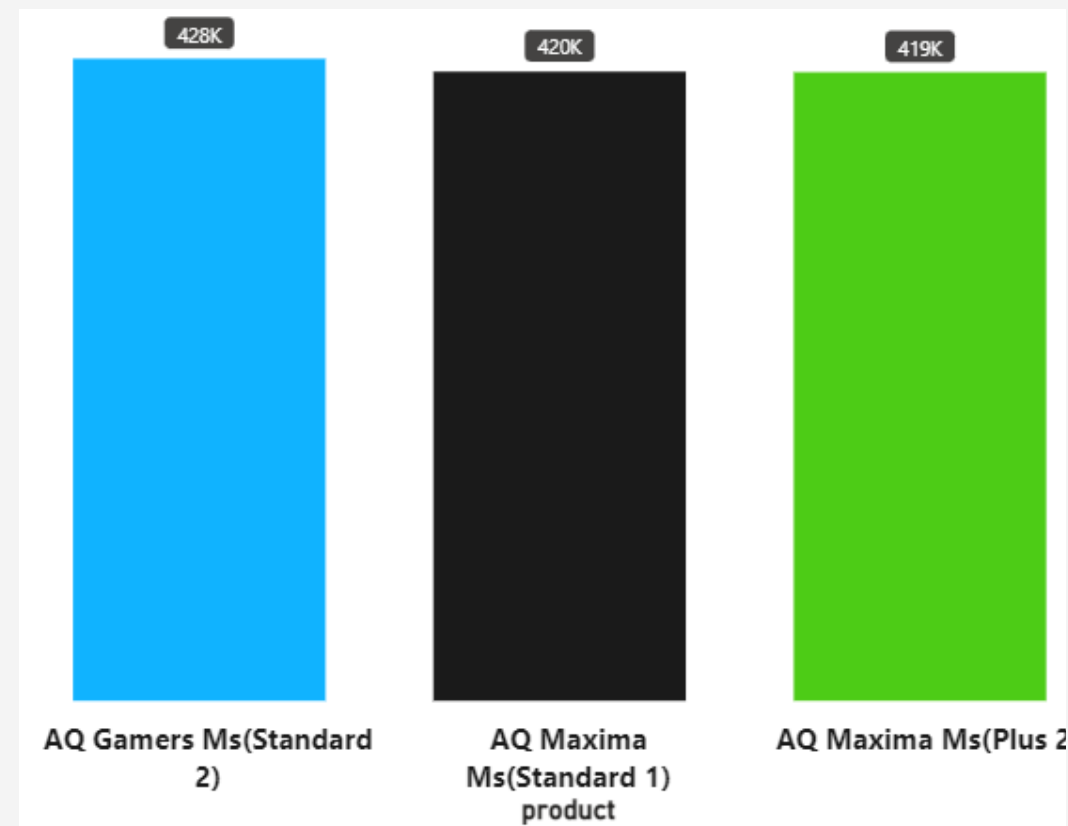
	division	product_code	product	total_sold_quantity	rank_order
▶	N & S	A6720160103	AQ Pen Drive 2 IN 1	701373	1
	N & S	A6818160202	AQ Pen Drive DRC	688003	2
	N & S	A6819160203	AQ Pen Drive DRC	676245	3
	P & A	A2319150302	AQ Gamers Ms	428498	1
	P & A	A2520150501	AQ Maxima Ms	419865	2
	P & A	A2520150504	AQ Maxima Ms	419471	3
	PC	A4218110202	AQ Digit	17434	1
	PC	A4319110306	AQ Velocity	17280	2
	PC	A4218110208	AQ Digit	17275	3

Insights

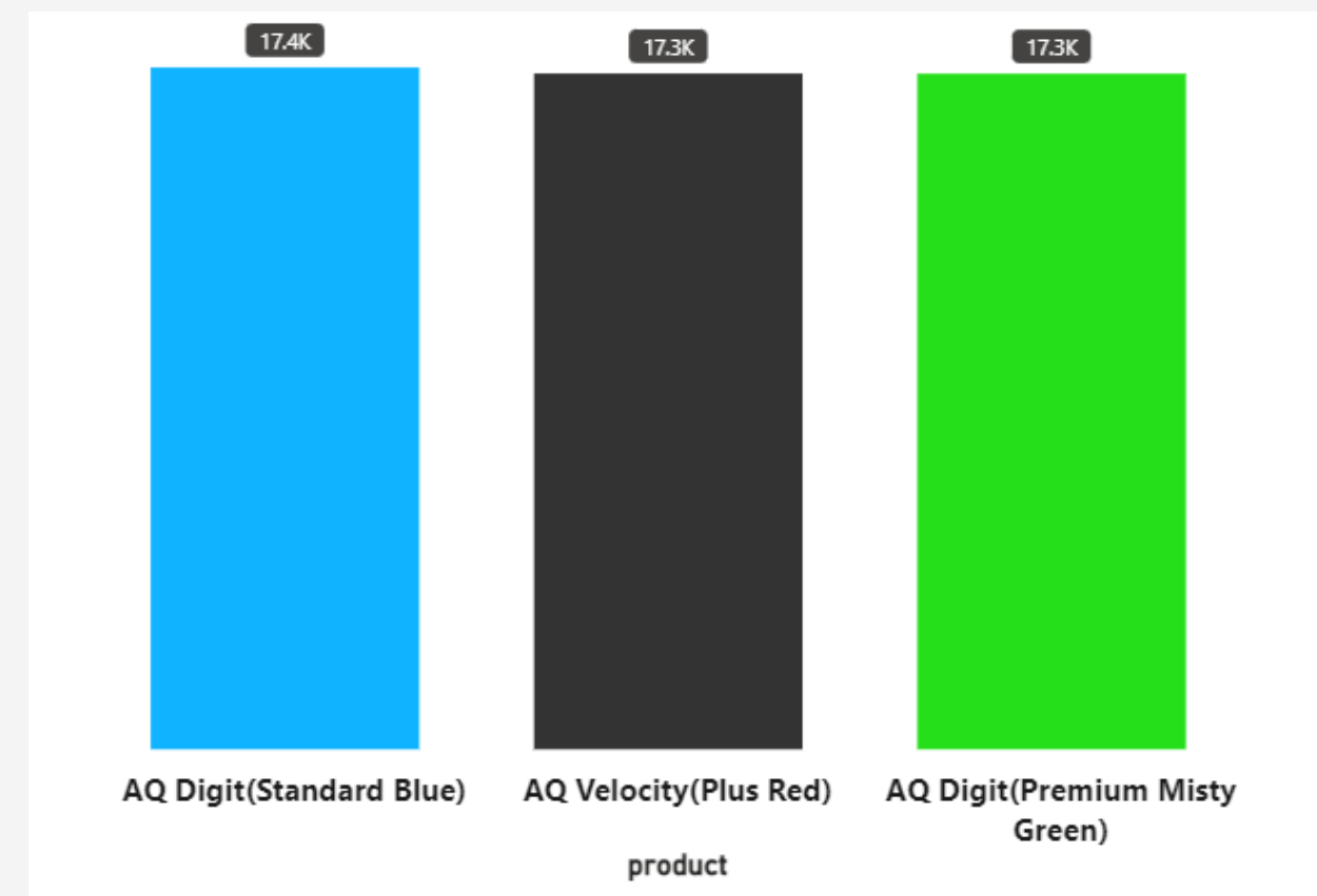
- The top 3 selling products in N&S were pen drives, which were around 7 lakh in quantity



- The top 3 selling products in P&A were mouse, which were around 4 lakh in quantity.



- The top 3 selling products in PC were personal laptops, which were around 17000 in quantity.



Summary

- The customer 'Atliq Exclusive' operates in 3 regions - APAC, EU, NA. In APAC region it operates its business in - Australia, Bangladesh, India, Indonesia, Japan, New Zealand, the Philippines, and South Korea.
- Unique_products in 2020 are 245 and Unique_Products in 2021 are 334. So, **89 unique products** were added in 2021. As a result, the percentage of unique product increase in 2021 vs. 2020 is 36.33%.
- The products are divided into 6 segments - Notebook, Accessories, Peripherals, Desktop, Storage and Networking.
 - Notebook, Accessories and Peripherals are the top 3 segments by unique product count.
 - Desktop, Storage and Networkings are the least 3 segments by unique product count.
 - Accessories segment has the most increase and Networking segment has the least increase in unique products in 2021 vs 2020.
- AQ HOME Allin1 Gen 2 has highest manufacturing cost and AQ Master wired x1 Ms has lowest manufacturing cost.
- Top 5 customers who received an average high pre_invoice_discount_pct for the fiscal year 2021 and in the Indian market are - Flipkart, Viveks, Ezone, Croma, Amazon.
- For the fiscal year, 2020, March was the least performing month and November was the highest performing month.
- Overall for 2019, 2020 and 2021, April was the least performing month and November was the highest performing month.
 - Quarter 1 ('September', 'October', 'November') got the maximum total sold quantity.
 - Quarter 3 ('March', 'April', 'May') got the minimum total sold quantity.
- Retailer channel helped to bring the most gross sales i.e., 73.22%, in the fiscal year 2021.
- Direct channel bring gross sales i.e., 15.47%, in the fiscal year 2021.
- Distributor channel bring gross sales i.e., 11.31%, in the fiscal year 2021.



Thank You

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