



Ad_HoC Insights Consumer Goods



Agenda Overview





Agenda Overview

Purpose

Company
Market
Overview

Approach

Insights

Purpose

Atliq Hardware is a leading computer hardware manufacturer in India with presence in other countries.

1

2

Nevertheless, the management did note that they do not have sufficient insights to make prompt, wise, and data-informed judgments

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Plan to expand the data analytics team by adding junior data analysts

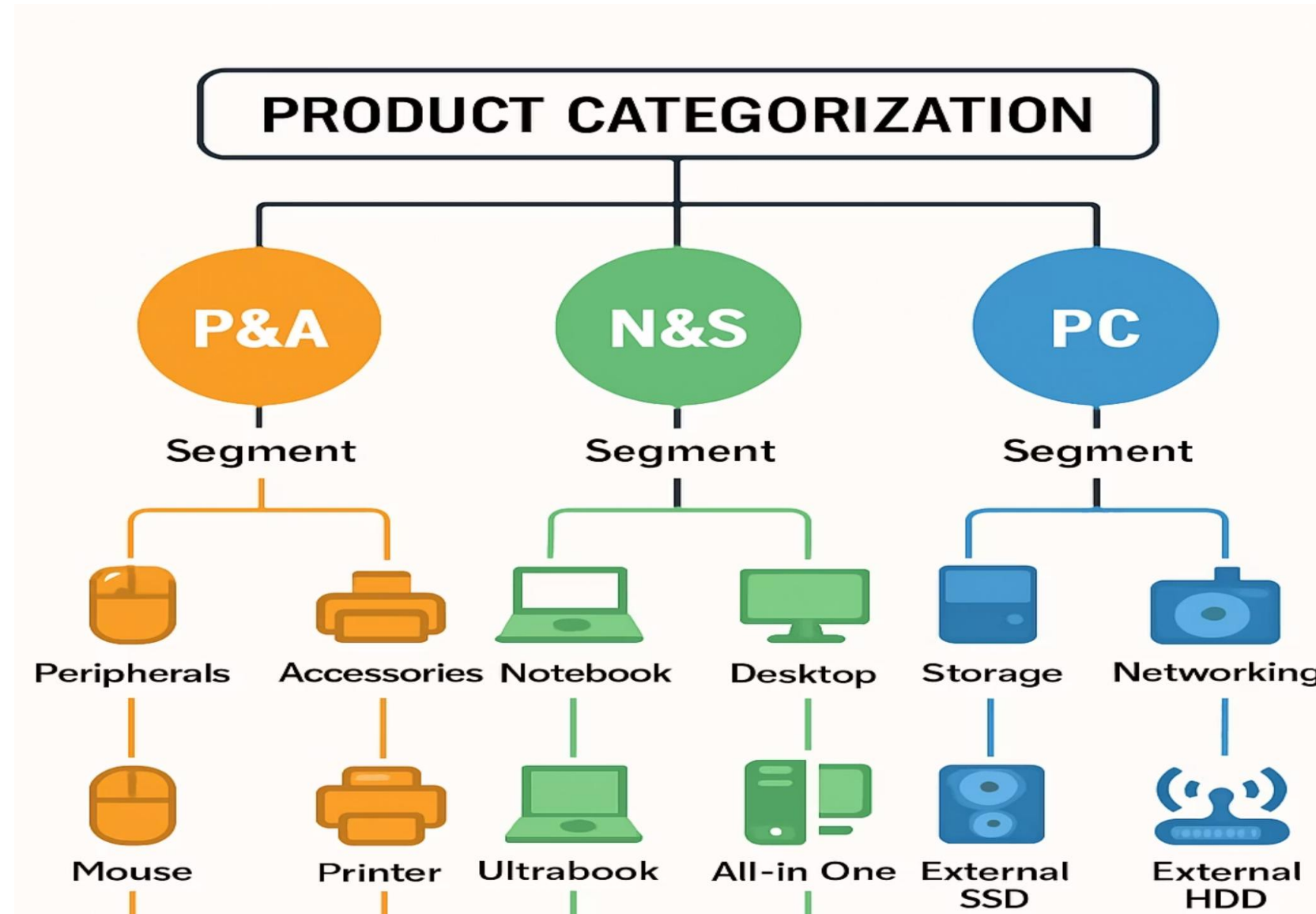
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To assess candidates, Data analytics director, Tony Sharma plans to conduct a SQL challenge to evaluate both tech and soft skills.

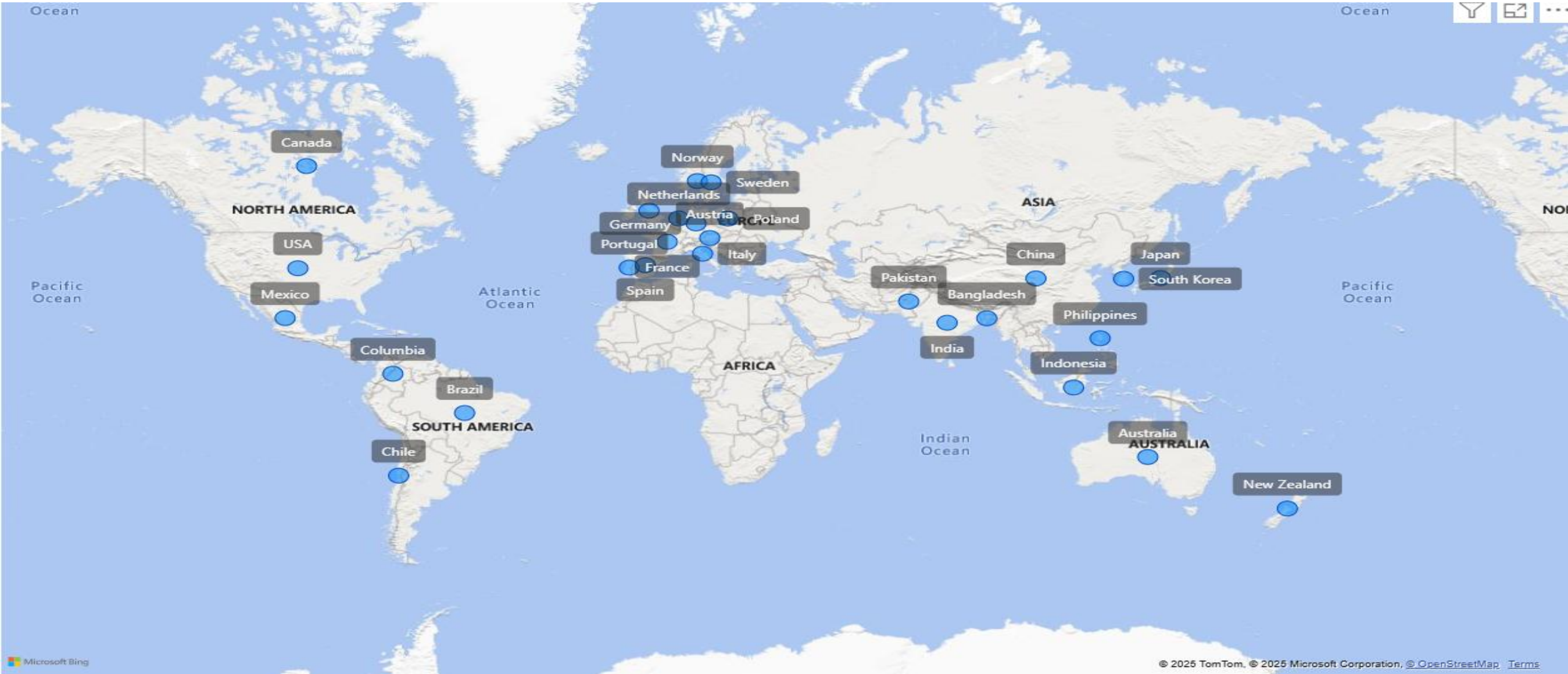
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The company seeks insights for 10 ad hoc requests.

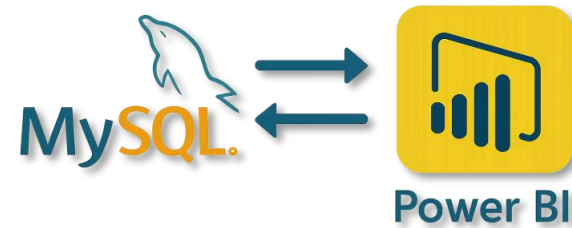
Atliq Hardware is a computer hardware and accessory manufacturer



Atliq's Global Market



How it is acheived ?



Codebasics SQL Challenge

Requests:

1. Provide the list of markets in which customer "Atliq Exclusive" operates its business in the 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
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
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
5. Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields,
product_code
product
manufacturing_cost

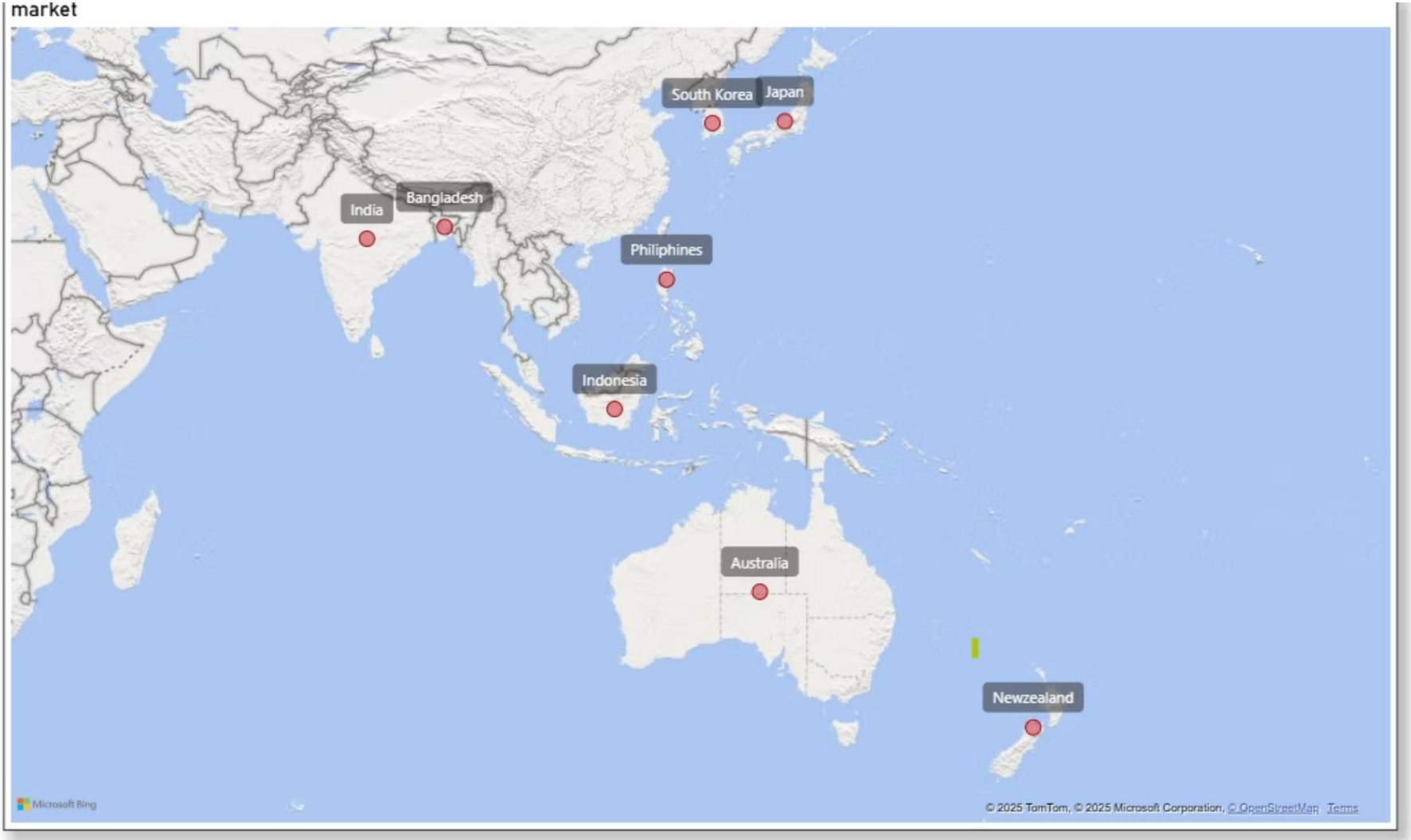
codebasics.io

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
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
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
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
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

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

	market
▶	India
	Indonesia
	Japan
	Philippines
	South Korea
	Australia
	Newzealand
	Bangladesh

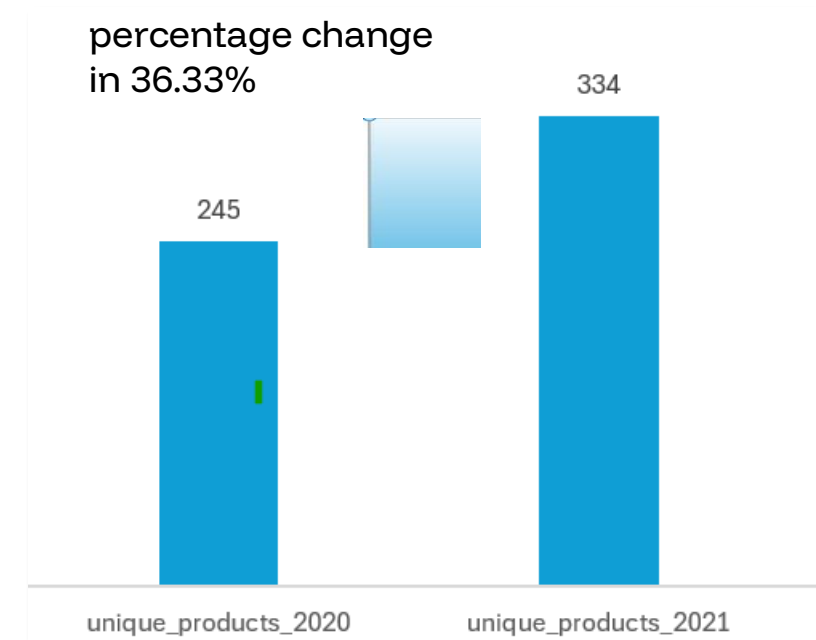


2.What is the percentage of unique product increase in 2021 vs. 2020? The final output contains these fields, `unique_products_2020`, `unique_products_2021`, `percentage_chg`

	unique_products_2020	unique_products_2021	percentage_chg
►	245	334	36.33

Insights:

There was a simultaneous increase in both market demand and production output

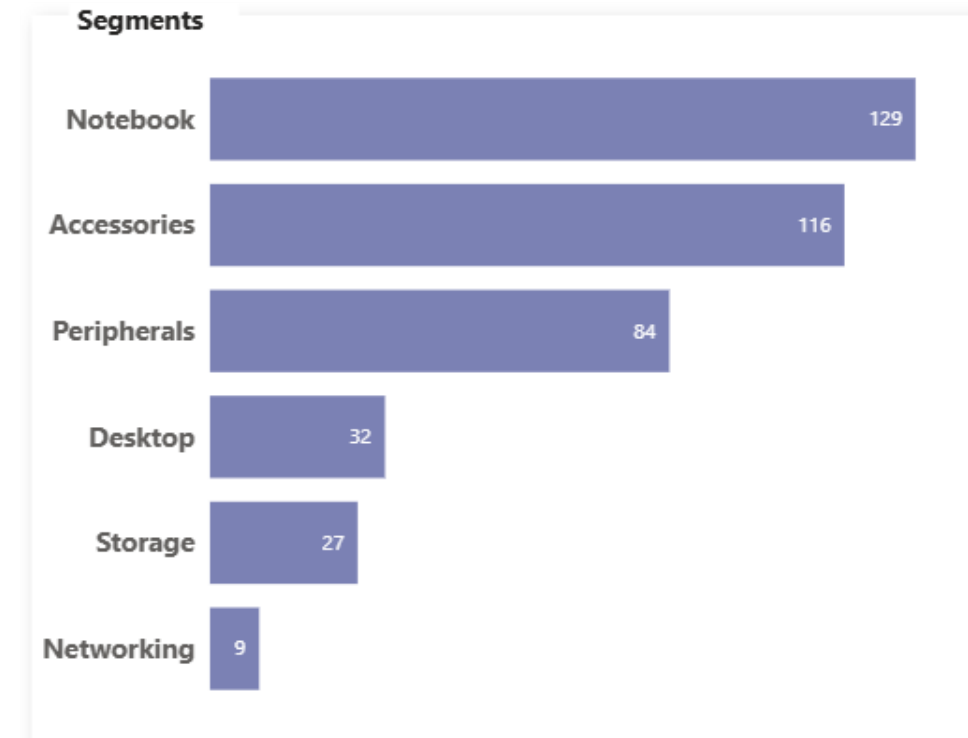


3. Provide a report with all the unique product counts for each segment and sort them in descending order of product counts. The final output contains 2 fields, `segment`, `product_count`

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

Insights:

- **Notebooks, accessories, and peripherals** which together represent **83%** of total output, are experiencing significantly stronger manufacturing growth compared to **desktops, storage, and networking equipment**



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

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:

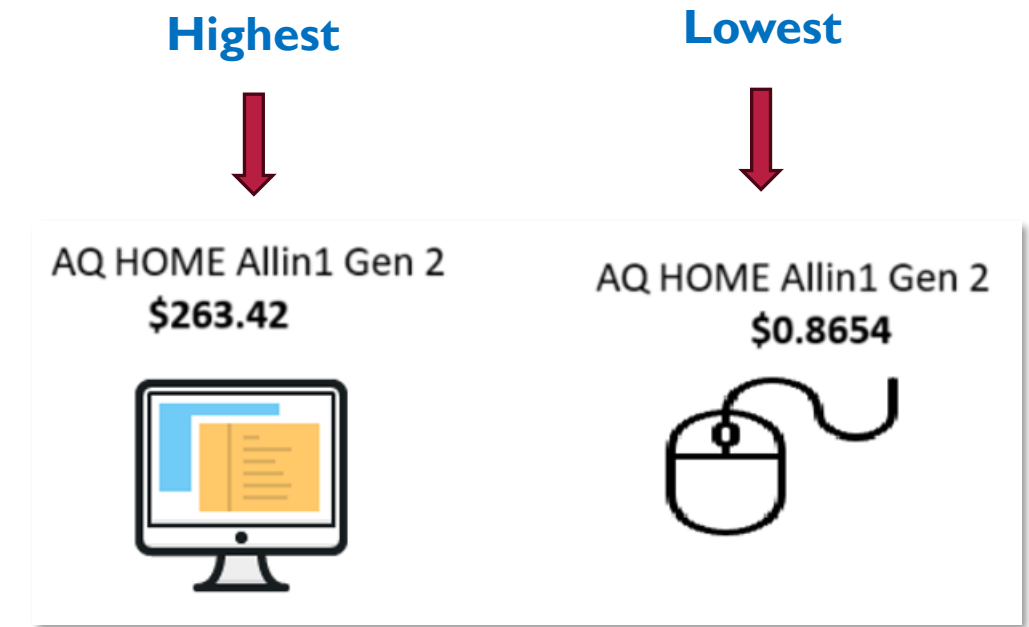
- **Accessories** have seen the most significant **increase** in production, while **storage and networking segments** are also experiencing gradual growth.

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	product_code	manufacturing_cost
▶	AQ HOME Allin1 Gen 2	A6121110208	263.4207
	AQ Master wired x1 Ms	A2118150101	0.8654

Insights:

- The Mouse model **AQ Master wired x1 Ms** has the lowest manufacturing cost, while the Personal Desktop **AQ Home Allin1 Gen2** exhibits the highest manufacturing cost.

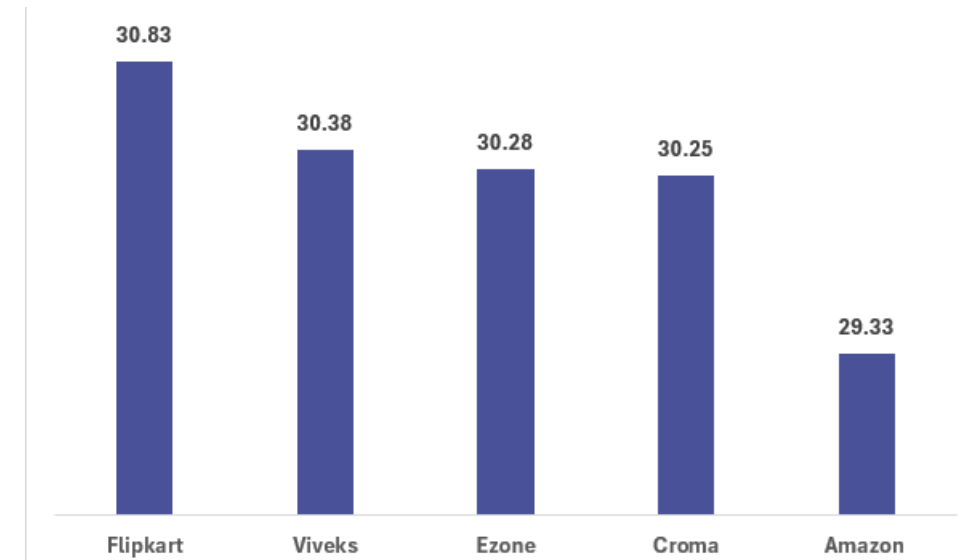


6. Generate a report which contains the top 5 customers who received an average high pre_invoice_discount_pct for the fiscal year 2021 and in the Indian market. The final output contains these fields, **customer_code** , **customer**, **average_discount_percentage**

	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

Insights:

The **highest** mean pre-invoice discount was granted to Flipkart, with Amazon receiving the **least**.



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**

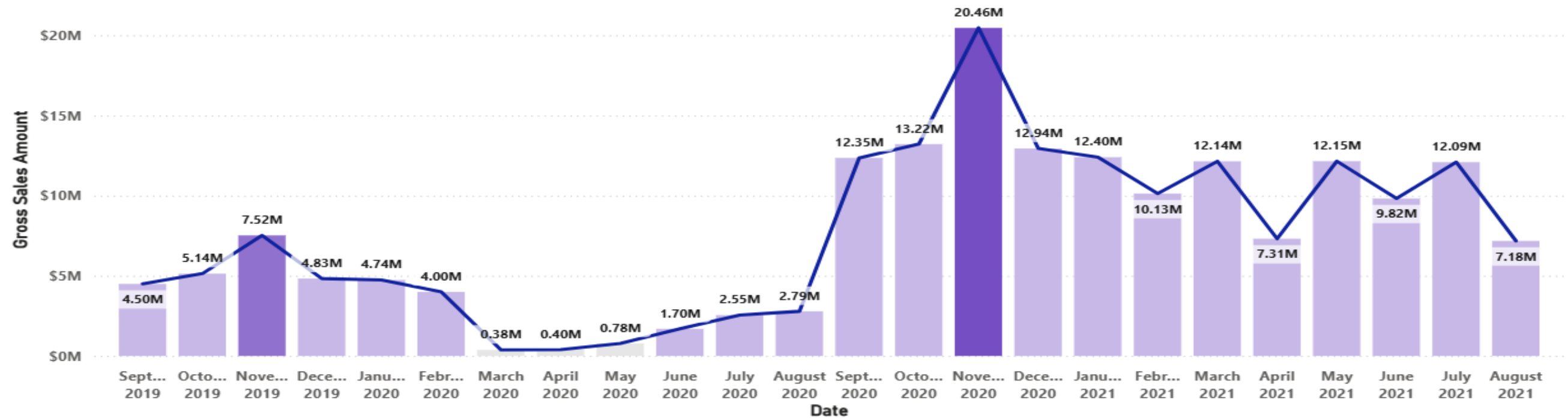
Month	fiscal_year	gross_sales_amount
September (2019)	2020	4496259.67
October (2019)	2020	5135902.35
November (2019)	2020	7522892.56
December (2019)	2020	4830404.73
January (2020)	2020	4740600.16
February (2020)	2020	3996227.77
March (2020)	2020	378770.97
April (2020)	2020	395035.35
May (2020)	2020	783813.42
June (2020)	2020	1695216.60
July (2020)	2020	2551159.16
August (2020)	2020	2786648.26

FY 2020

Month	fiscal_year	gross_sales_amount
August (2020)	2020	2786648.26
September (2020)	2021	12353509.79
October (2020)	2021	13218636.20
November (2020)	2021	20464999.10
December (2020)	2021	12944659.65
January (2021)	2021	12399392.98
February (2021)	2021	10129735.57
March (2021)	2021	12144061.25
April (2021)	2021	7311999.95
May (2021)	2021	12150225.01
June (2021)	2021	9824521.01
July (2021)	2021	12092346.32
August (2021)	2021	7178707.59
September (2021)	2022	57397032.34
October (2021)	2022	59610755.90
November (2021)	2022	95686586.01
December (2021)	2022	60156297.03

FY 2021

Insights:



FY 2020

FY 2021

- In both fiscal years, **November** saw the **highest** gross sales for Atliq Exclusive, driven by the Diwali season.
- Due to the COVID-19 impact, Atliq Exclusive recorded its **lowest** gross sales in March, April, and May 2020.

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	7005619
	Q2	6649642
	Q3	2075087
	Q4	5042541

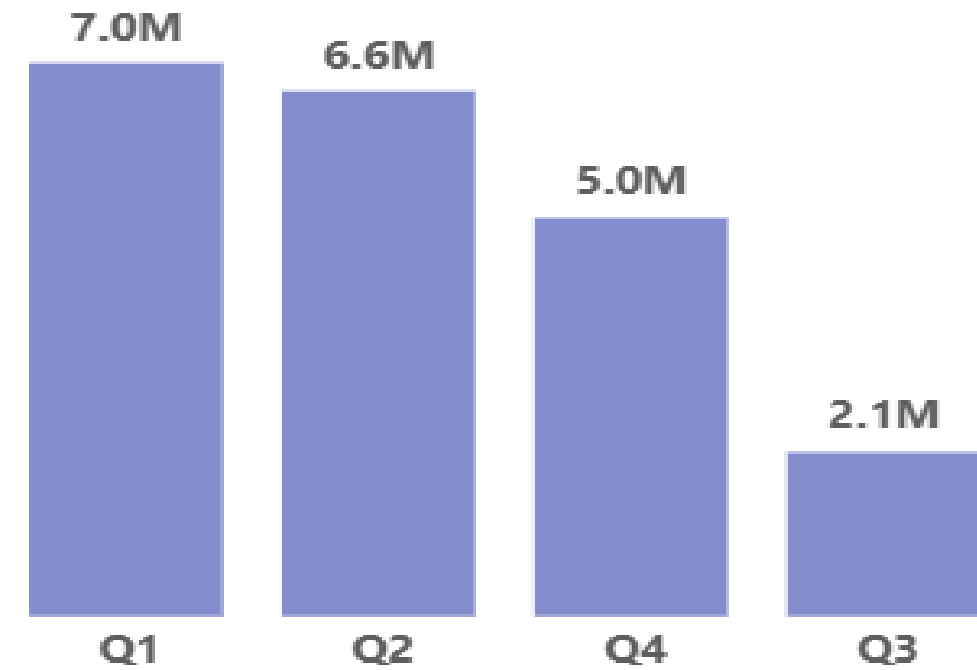
Insights:

- Unit sales peaked in Q1 FY2020 and dropped to their lowest in Q3.
- Overall, December recorded the highest sales quantity, while March had the lowest.

	Quarters	sum(sold_quantity)
►	Q1 September	1764002
	Q1 October	2190792
	Q1 November	3050825
	Q2 December	3184205
	Q2 January	1762652
	Q2 February	1702785
	Q3 March	238961
	Q3 April	819956
	Q3 May	1016170
	Q4 June	1559773
	Q4 July	1692575
	Q4 August	1790193

Analysis of Quarterly Sales Quantity for FY2020

Month	Quarter	Total sold quantity
November	Q1	3.05M
October	Q1	2.19M
September	Q1	1.76M
December	Q2	3.18M
February	Q2	1.70M
January	Q2	1.76M
April	Q3	0.82M
March	Q3	0.24M
May	Q3	1.02M
August	Q4	1.79M
July	Q4	1.69M
June	Q4	1.56M

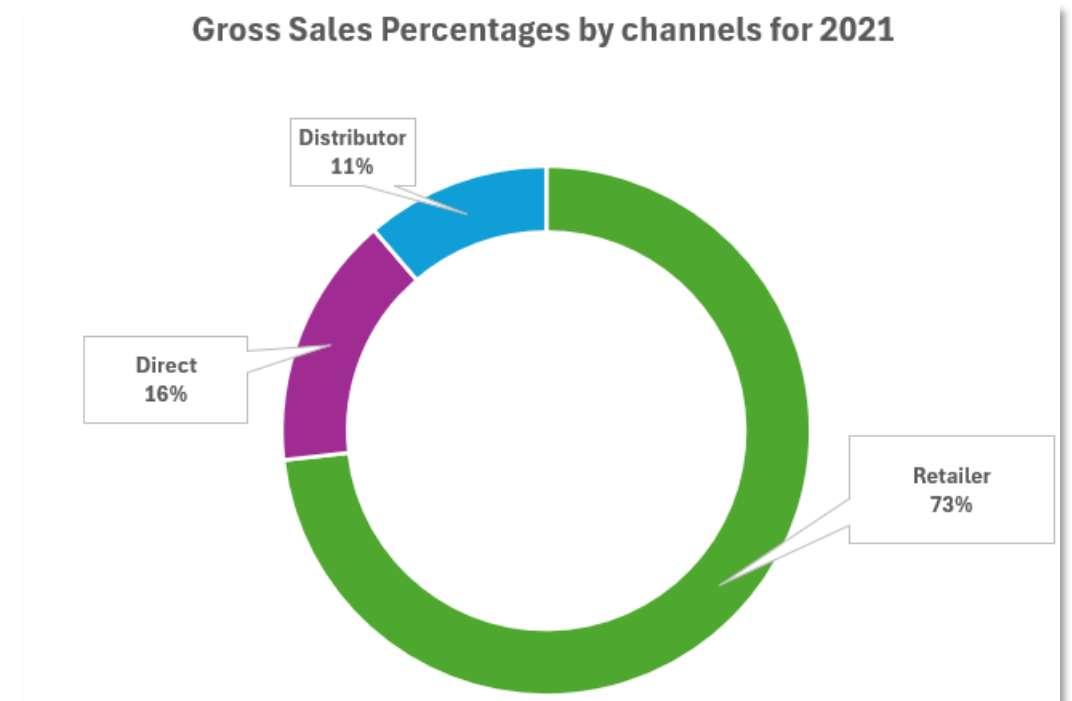


9. Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution? The final output contains these fields, `channel`, `gross_sales_mln`, `percentage`

	channel	gross_sales_mln	percentage
►	Retailer	1219.08	73.23 %
	Direct	257.53	15.47 %
	Distributor	188.03	11.30 %

Insights:

- **Retailers** dominated sales contribution with **73.22%**, whereas **Distributors** accounted for the lowest share at just **11.31%**.

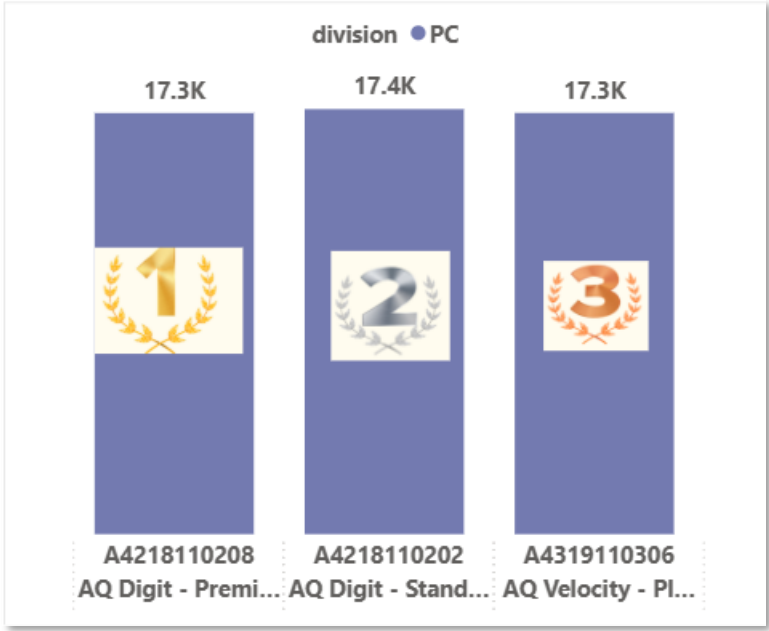
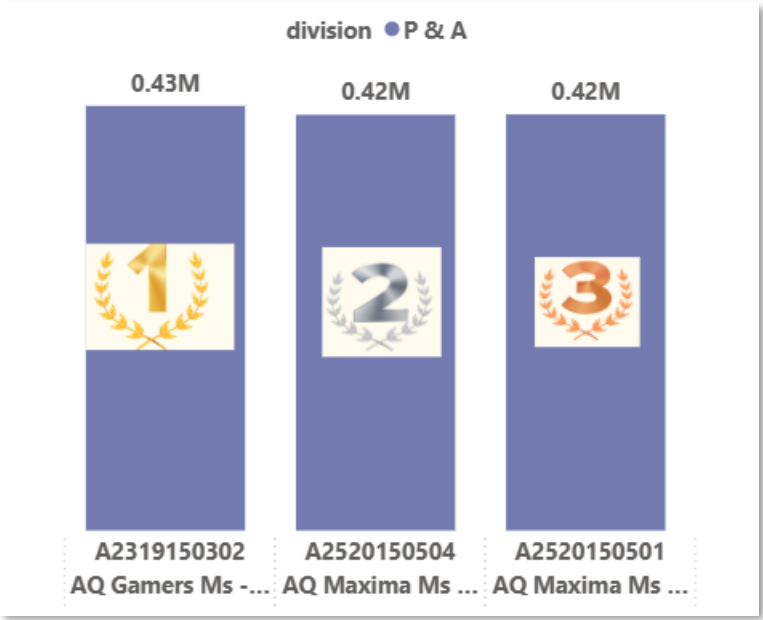
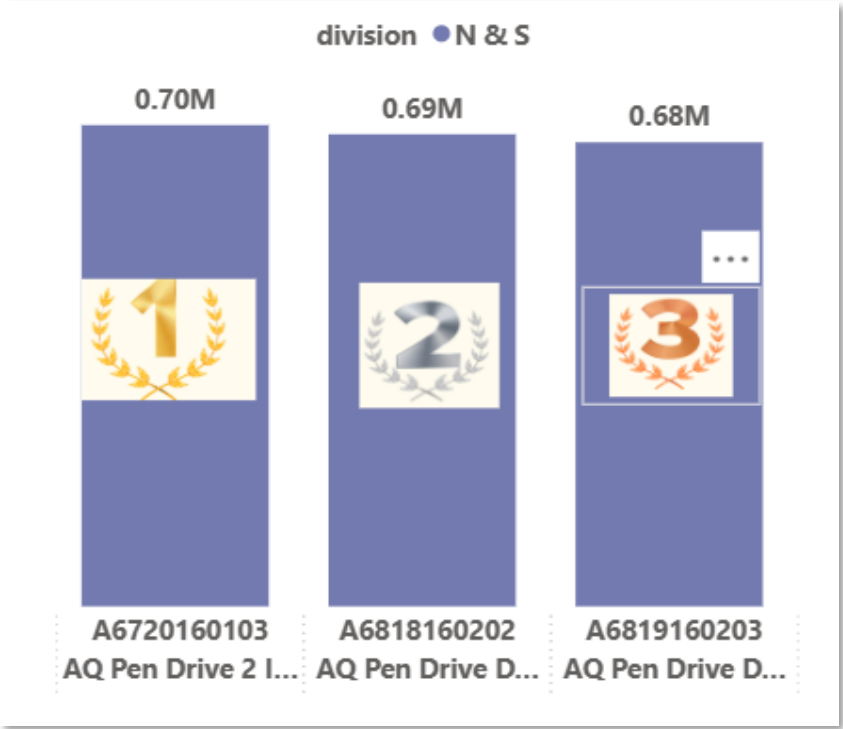


10. Get the Top 3 products in each division that have a high total_sold_quantity in the fiscal_year 2021? The final output contains these fields, `division`, `product_code`, `product`, `total_sold_quantity`, `rank_order`

	division	product_code	product_variant	Total_sold_quantity	rank
▶	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:

- Each division's sales are largely driven by a few key products, with the top 3 accounting for the bulk of total sold quantity in FY 2021.





Thank you



Hemanand Vadivel



Dhaval Patel