



Atliq
Hardware

ADHOC ANALYSIS CONSUMER GOODS

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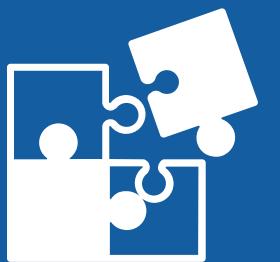
Adhoc Requests

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Acknowledgement



OBEJECTIVES



Atliq Hardwares (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**. Hence, he decided to conduct a **SQL challenge** with **10 Adhoc Requests** which will help asses the candidates.

ABOUT COMPANY

Atliq Hardware is a computer hardware and accessory manufacturer

- 01 INNER CRICLE:
DIVISION
 - 02 MIDDLE CRICLE
SEGMENT
 - 03 OUTER CRICLE:
CATEGORY

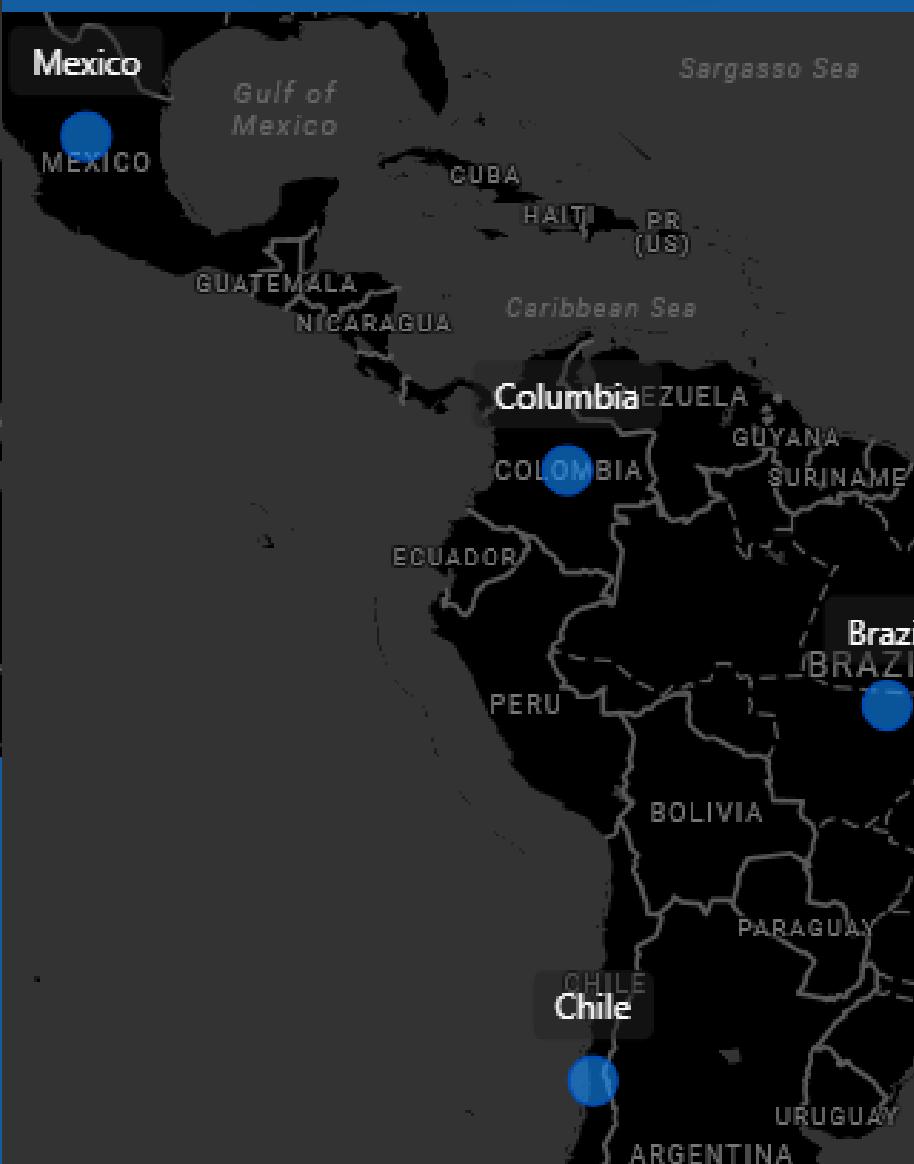


MARKET

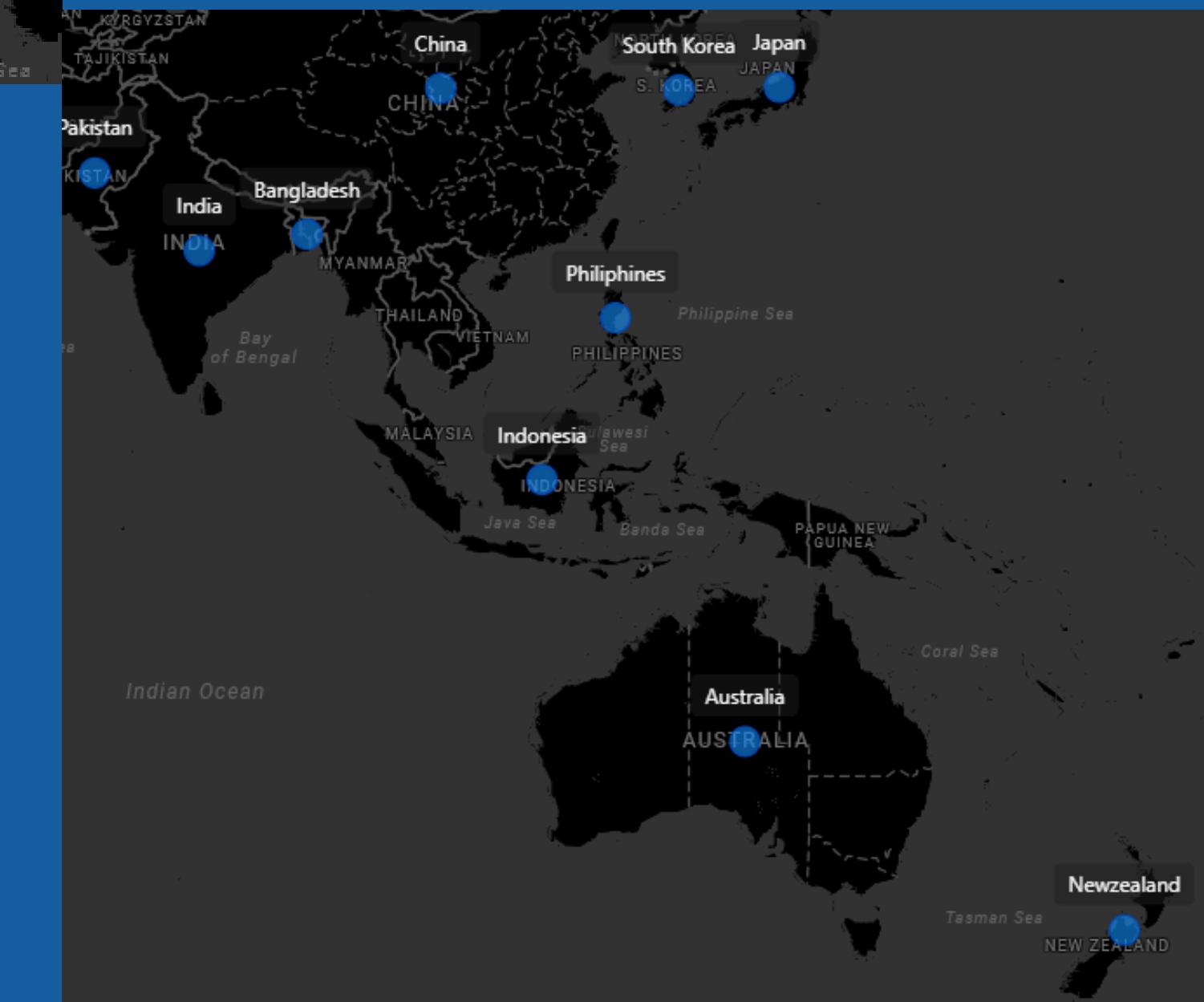


NA

LATAM



EU



APAC

REQUESTS AND TOOLS

Codebasics SQL Challenge

Requests:

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

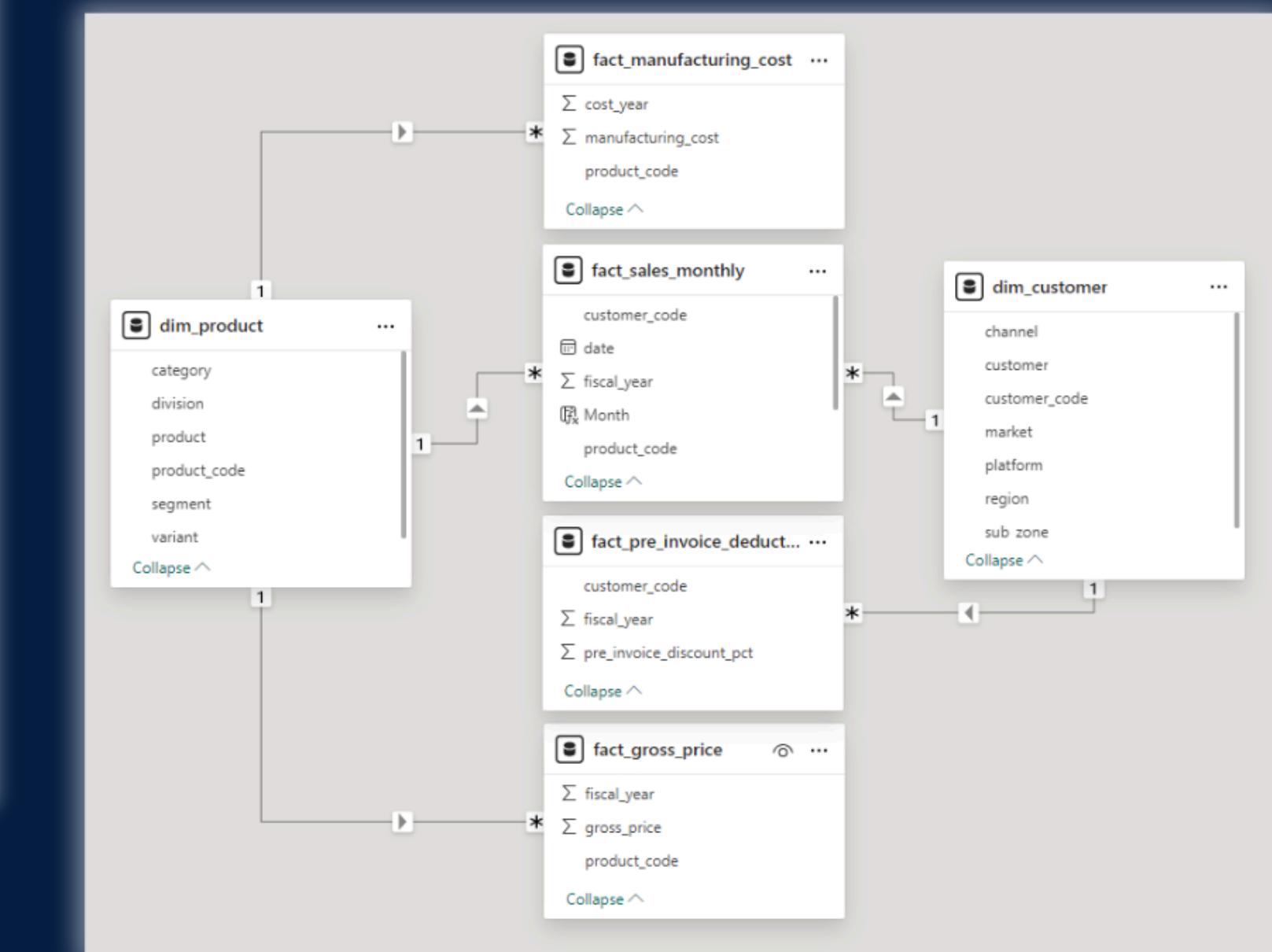
6. Generate a report which contains the top 5 customers who received an average high pre_invoice_discount_pct for the fiscal year 2021 and in the Indian market. The final output contains these fields,
customer_code
customer
average_discount_percentage

7. Get the complete report of the Gross sales amount for the customer "Atiq 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

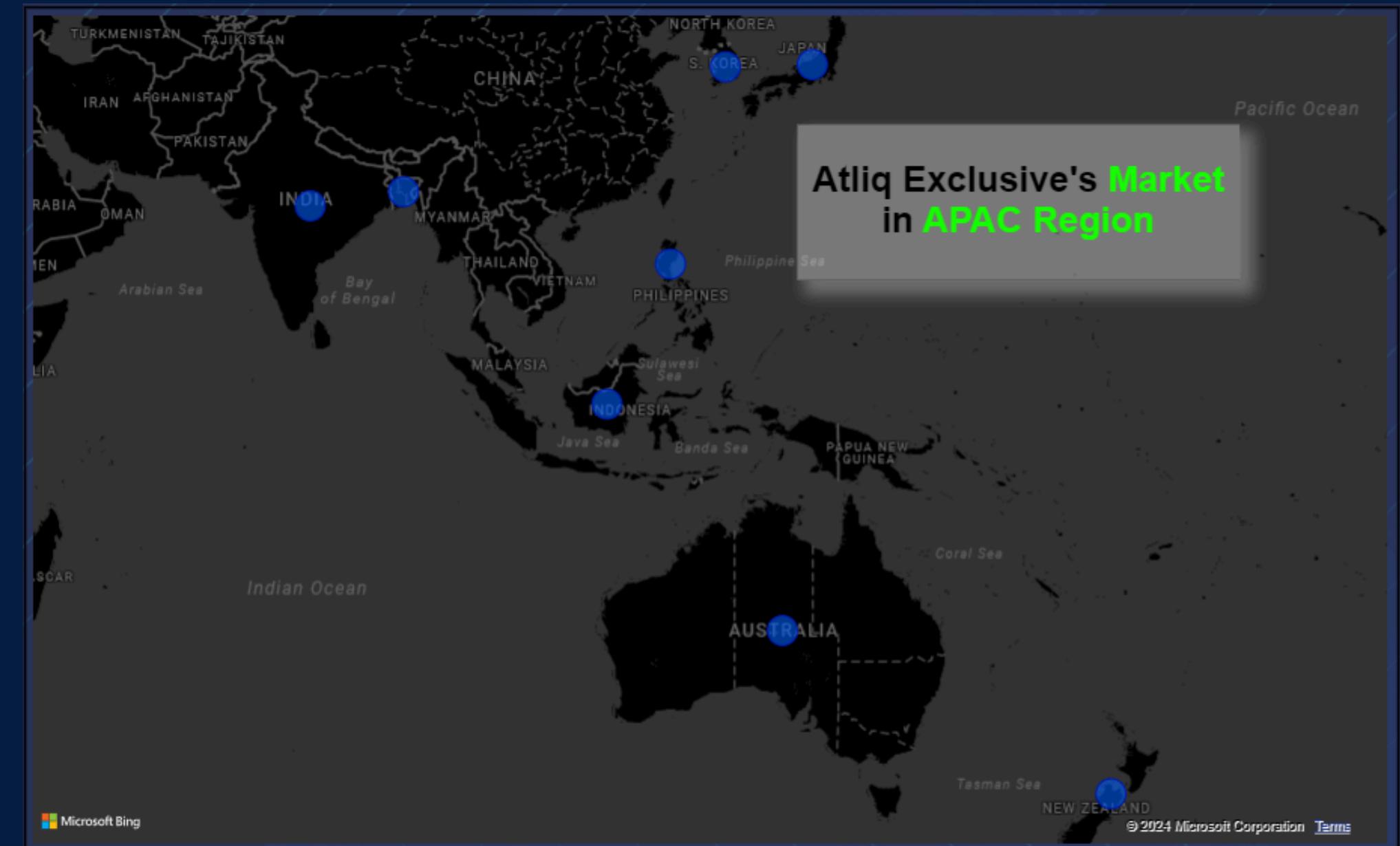
9. Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution? The final output contains these fields,
channel
gross_sales_mln
percentage

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



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

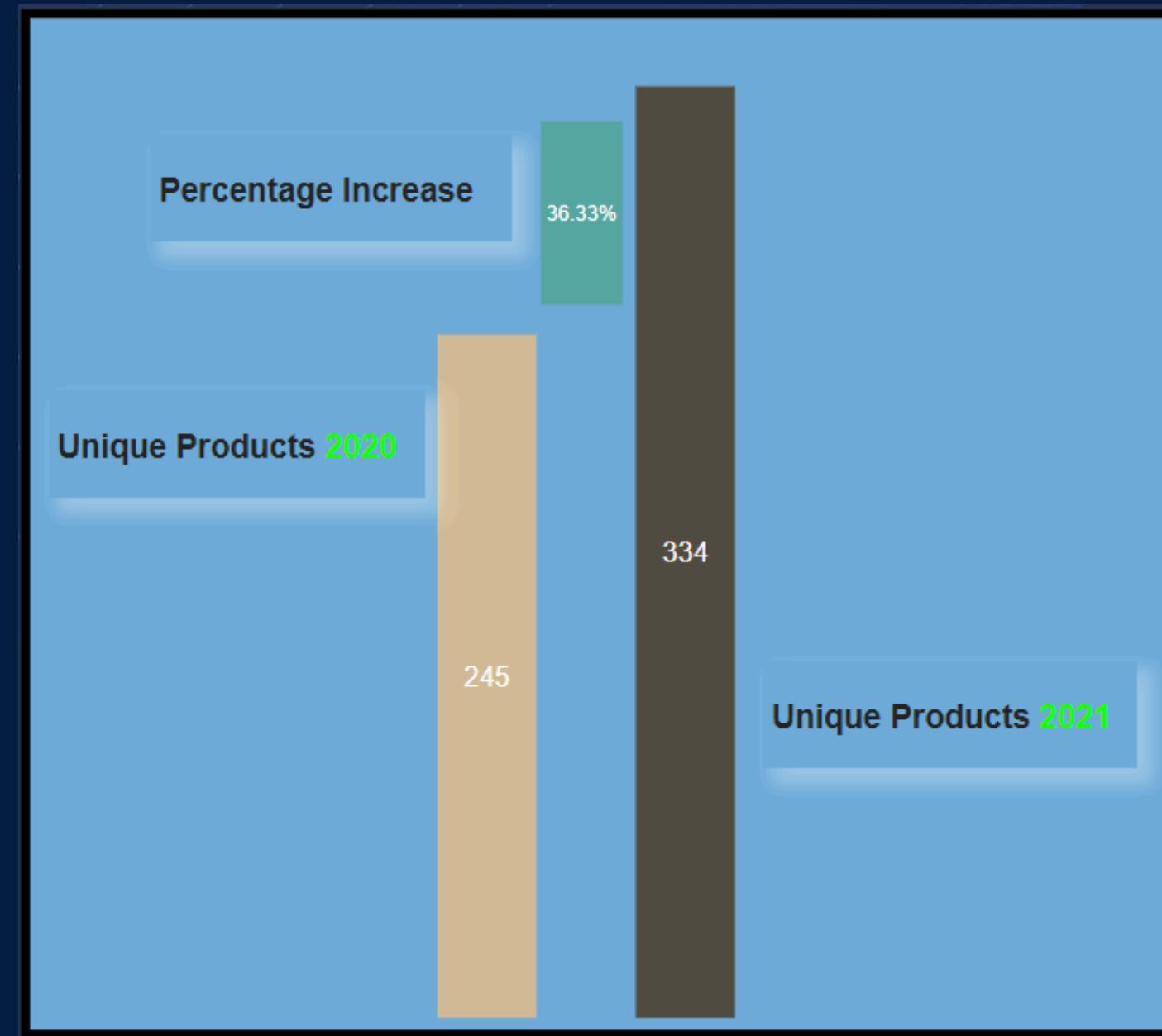


2. What is the percentage of unique product increase in 2021 vs. 2020?

	unique_prod_count_2020	unique_prod_count_2021	chg_pct
▶	245	334	36.3265

Insights:

Demand and Production has increased in FY2021



3. Provide a report with all the unique product counts for each segment and sort them in descending order of product counts.

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



Insights:

Segments like **Notebook**, **Accessories** and **Peripherals** show significant growth compared to **Desktop**, **Storage** and **Networking**.

83% of the manufactured products are contributed by **top 3** segments.

4. Which segment had the most increase in unique products in 2021 vs 2020?

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 has highest increase in the manufactured product compared to rest of the products in the segment.

Storage and **networking** segment contribute to the least growth in both the fiscal years.

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 ↑

Storage	12	17	5 
Networking	6	9	3 

Product	Product Count	Product Count	Difference
	2020	2021	▼
AQ Wi Power Dx3		3	3
AQ Wi Power Dx1	3	3	0
AQ Wi Power Dx2	3	3	0

Networking



Storage

Insights:

The **products** in Storage and Networking Segment which requires attention for **improvement**.

- Discounts
- Student Offers
- Package Sales
- Combo Deals

Product	Product Count	Product Count	Difference
	2020	2021	▼
AQ Clx2	1	3	2
AQ Pen Drive DRC	1	3	2
AQ Clx3		1	1
AQ Clx1	3	3	0
AQ Digit SSD	3	3	0
AQ Neuer SSD	3	3	0
AQ Pen Drive 2 IN 1	1	1	0

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

product_code	product	manufacturing_cost
A6120110206	AQ HOME Allin1 Gen 2	240.5364
A2118150101	AQ Master wired x1 Ms	0.8920

Insights:

AQ Home Allin1 Gen2 (Variant: Plus 1) has **highest** manufacturing cost



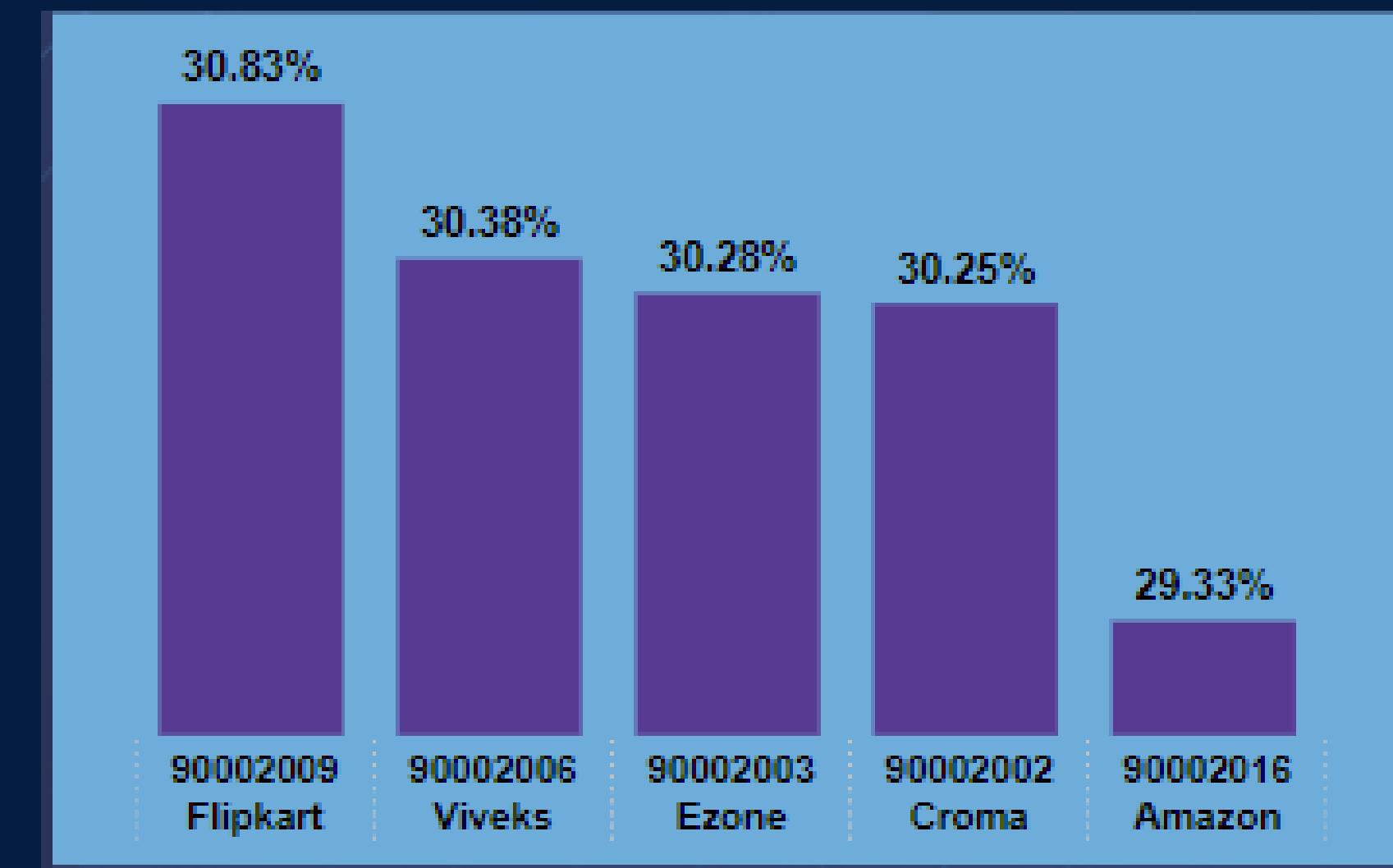
AQ Master wired x1 Ms (Variant: Standard 1) has **lowest** manufacturing cost.

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.

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

Insights:

Flipkart, Viveks, Ezone, Croma and Amazon are top 5 customers of Atliq who has received average highest pre invoice discount.



7. Get the complete report of the Gross sales amount for the customer "Atliq Exclusive" for each month .

Month	fiscal_year	gross_sales_amount
September(2019)	2020	9.09
October(2019)	2020	10.38
November(2019)	2020	15.23
December(2019)	2020	9.76
January(2020)	2020	9.58
February(2020)	2020	8.08
March(2020)	2020	0.77
April(2020)	2020	0.80
May(2020)	2020	1.59
June(2020)	2020	3.43
July(2020)	2020	5.15
August(2020)	2020	5.64

FY 2020

Insights:

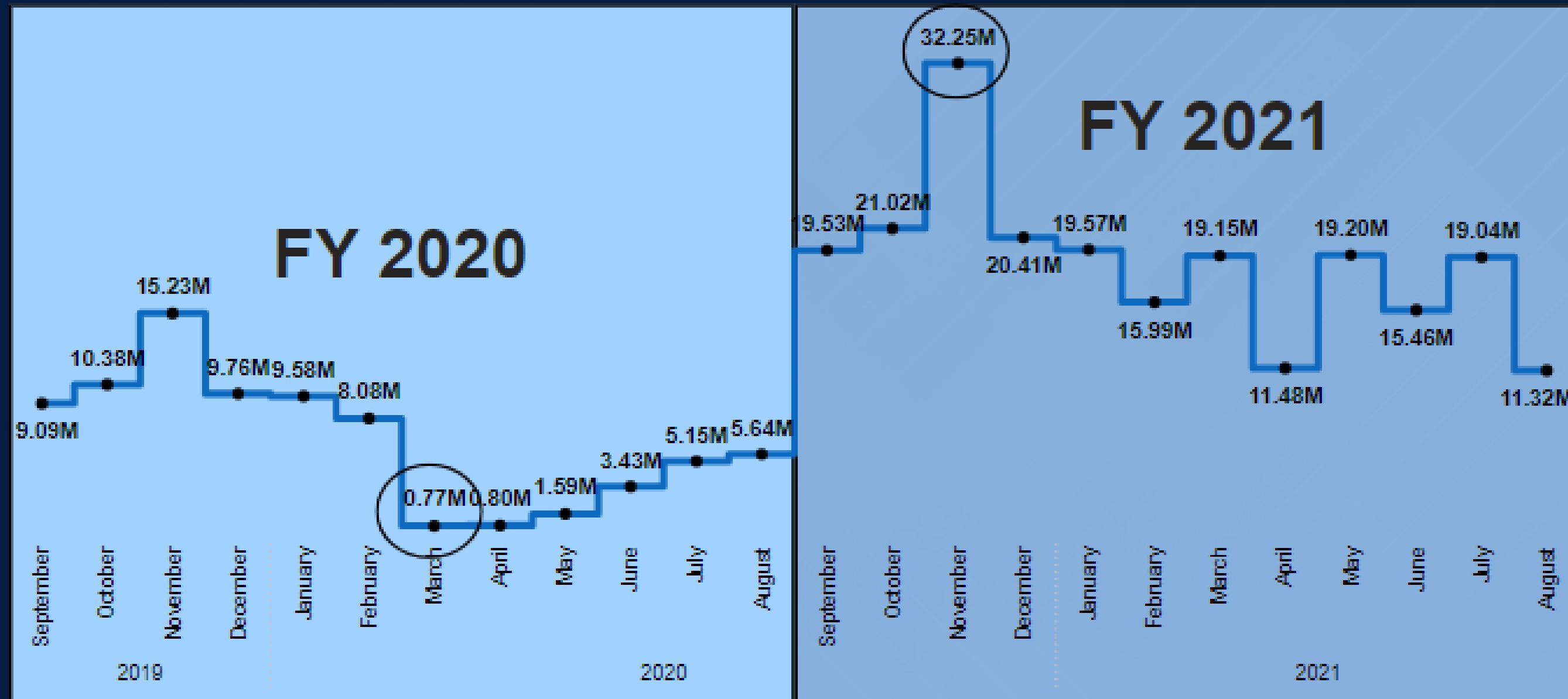
FY2020 has contributed least for sales with a total of **79.5 M**

FY2021 has a total sales of **224.42 M** which has contributed **74% of total sales**

September(2020)	2021	19.53
October(2020)	2021	21.02
November(2020)	2021	32.25
December(2020)	2021	20.41
January(2021)	2021	19.57
February(2021)	2021	15.99
March(2021)	2021	19.15
April(2021)	2021	11.48
May(2021)	2021	19.20
June(2021)	2021	15.46
July(2021)	2021	19.04
August(2021)	2021	11.32

FY 2021

Report of the Gross sales amount for the customer "Atliq Exclusive" for each month .

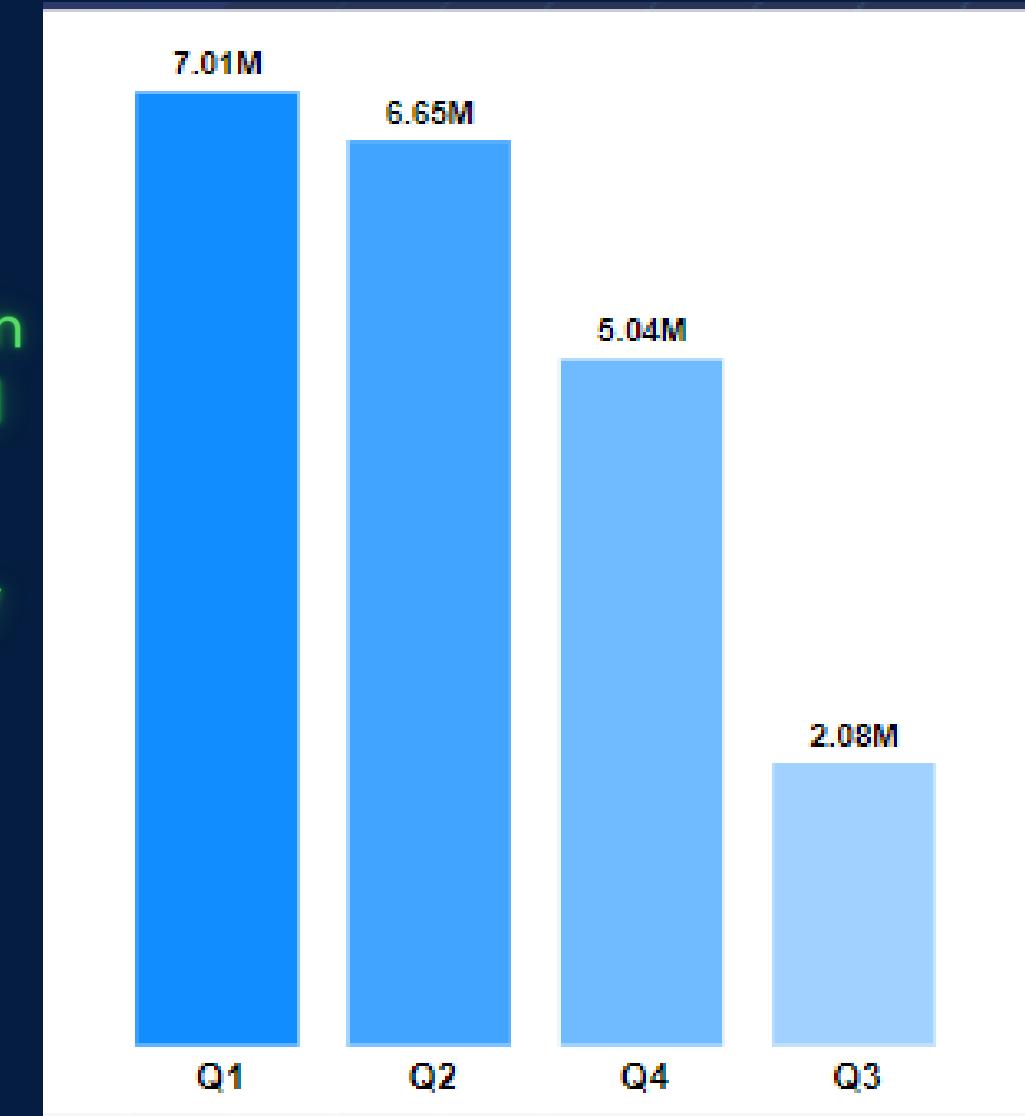


Insights:

- Covid
- Global Chip Shortage

8. In which quarter of 2020, got the maximum total_sold_quantity?

quarter	total_sold_quantity
Q(1)	7.01
Q(2)	6.65
Q(4)	5.04
Q(3)	2.08



Month	Quarter	Sold_quantity
Nov	Q1	3.05M
Oct	Q1	7.01M
Sep	Q1	1.76M
Dec	Q2	3.18M
Feb	Q2	1.70M
Jan	Q2	1.76M
Apr	Q3	0.82M
Mar	Q3	0.24M
May	Q3	1.02M
Aug	Q4	1.79M
Jul	Q4	1.69M
Jun	Q4	1.56M

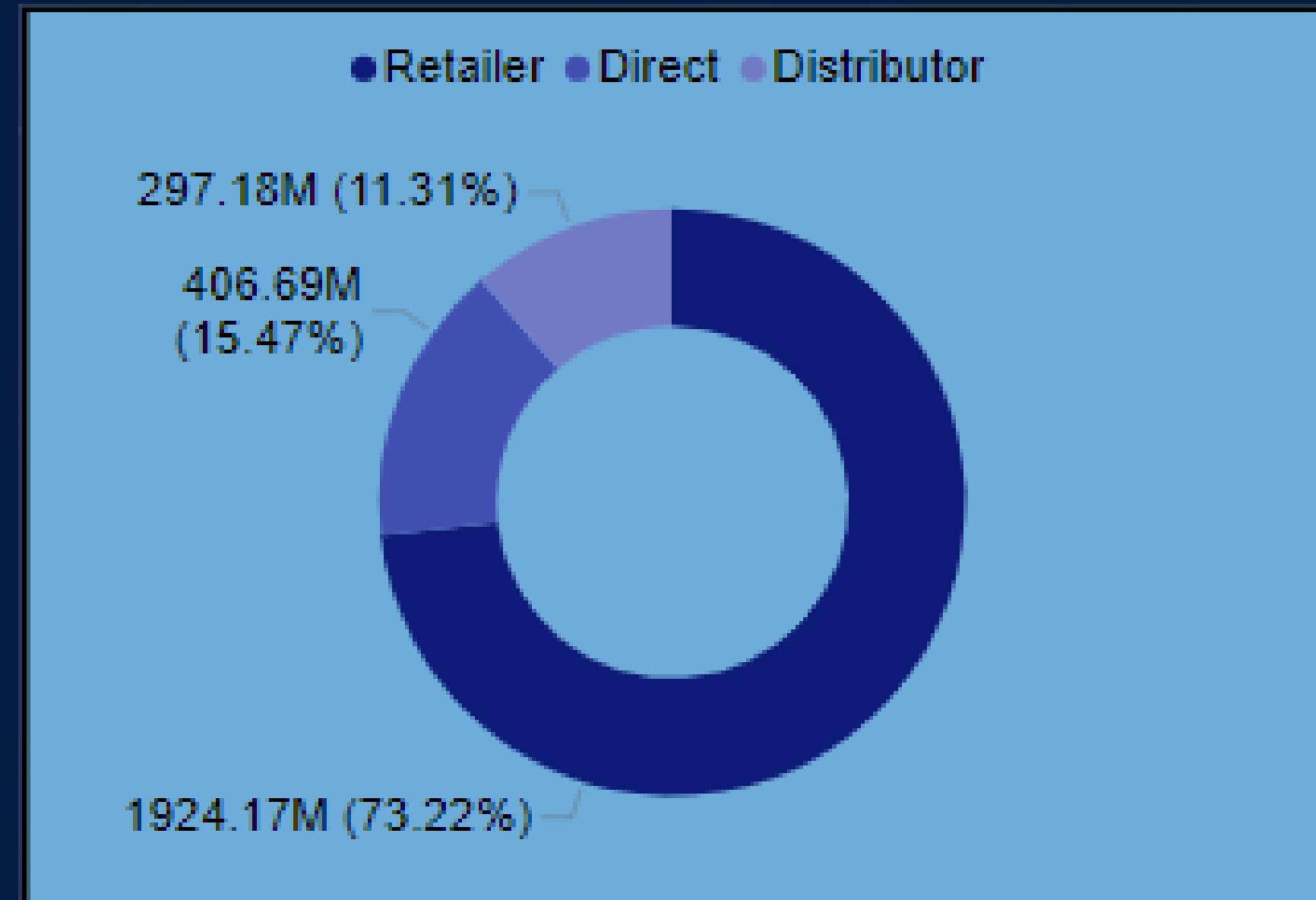
9. Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution?

channel	gross_sales_mln	percentage
Retailer	1924.17	73.22
Direct	406.69	15.48
Distributor	297.18	11.31

Insights:

Retailer channel contributes to the **highest** sales with **73.22%** percentage of contribution.

Distributor channel has the **least** sales with **11.31%** percentage of contribution.



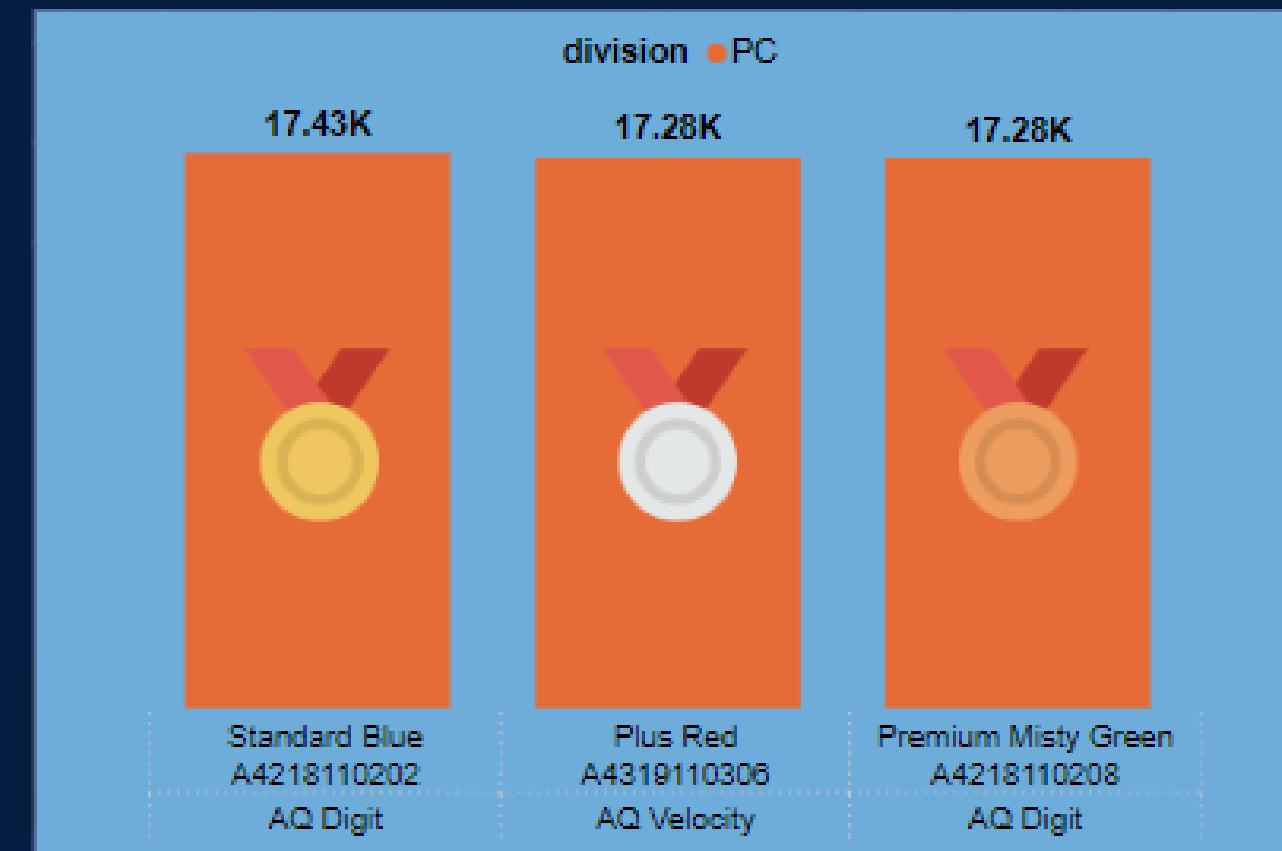
10. Get the Top 3 products in each division that have a high total_sold_quantity in the fiscal_year 2021?

division	product_code	product	total_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:

Each product has different variants which appears twice in top products by each division.

Top 3 products in each division with variants that have a high total_sold_quantity in the fiscal_year 2021



Thank You

