CONSUMER GOODS: AD_HOC INSIGHTS

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AGENDA

1. Project Details
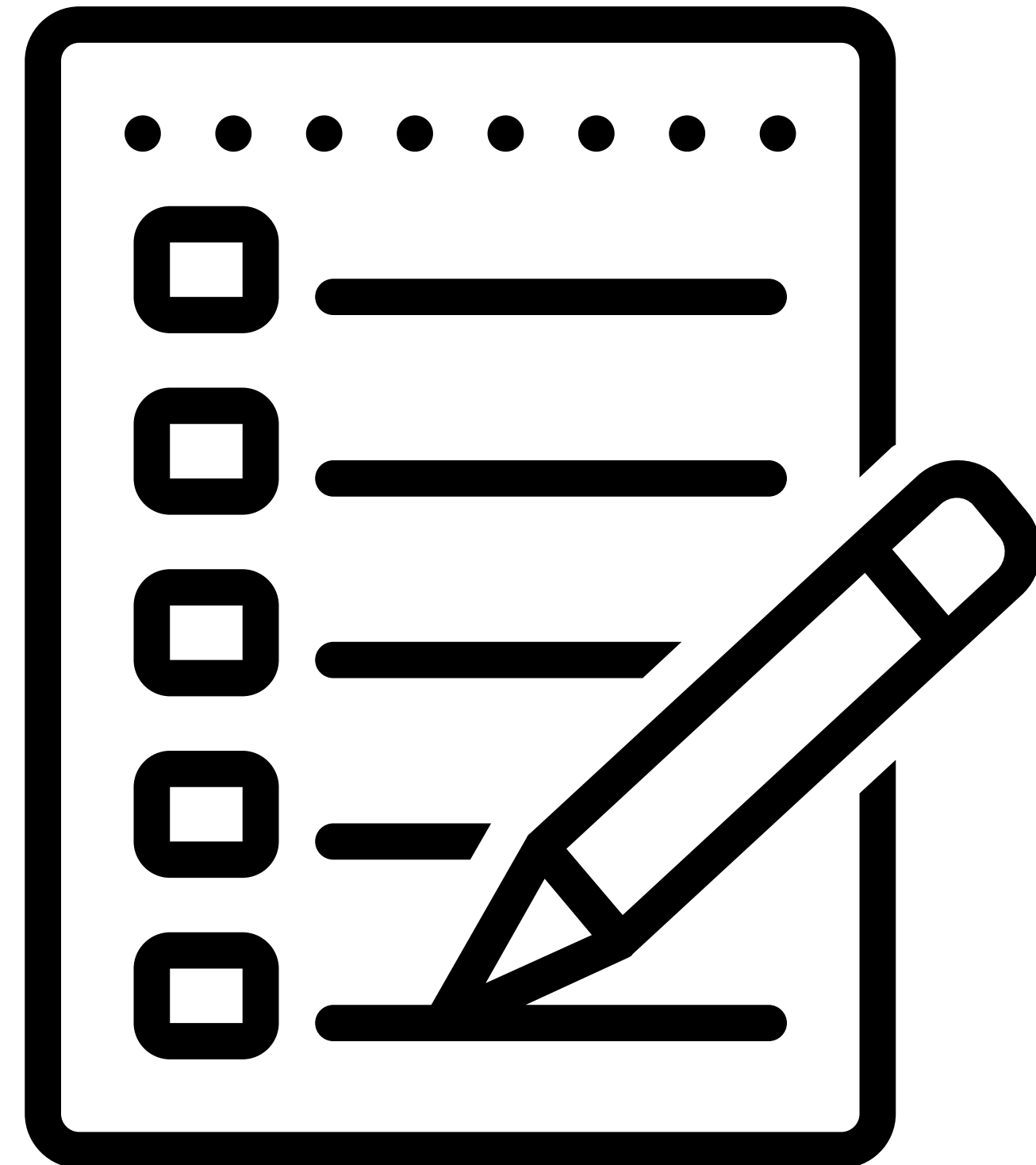
2. About AtliQ Hardwares

3. Input Data & Tools

4. Ad Hoc Requests, Results and Insights

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PROJECT DETAILS

- **Atliq Hardwares** (fictional company) is a top computer hardware company in India that also operates in other countries.

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

- There are **10 Ad-Hoc requests** for which the company needs insights.

- Run **SQL queries** to answer these requests. Convert the results into **visualizations** and **present** it to the top management.
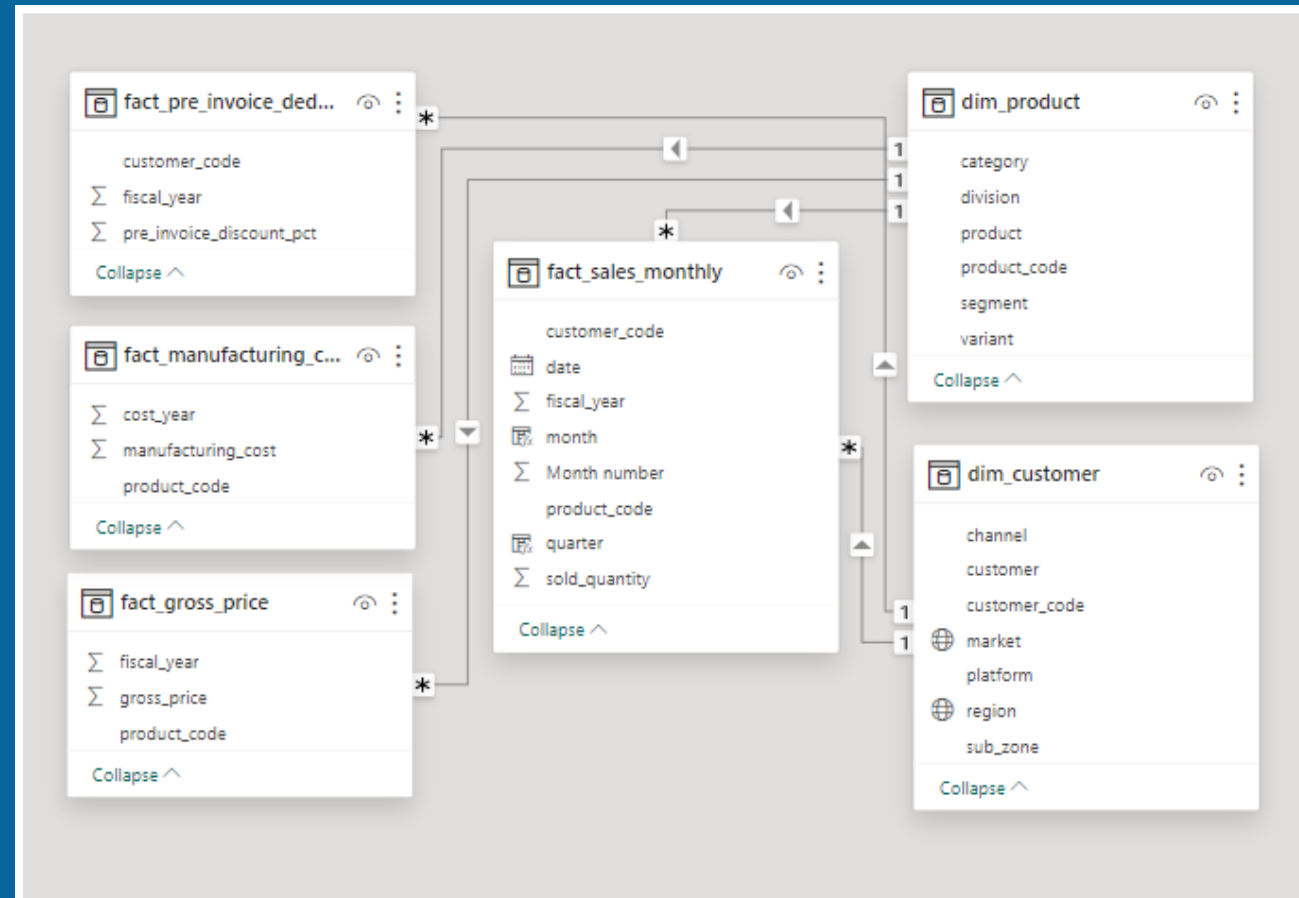
② ABOUT ATLIQ HARDWARES
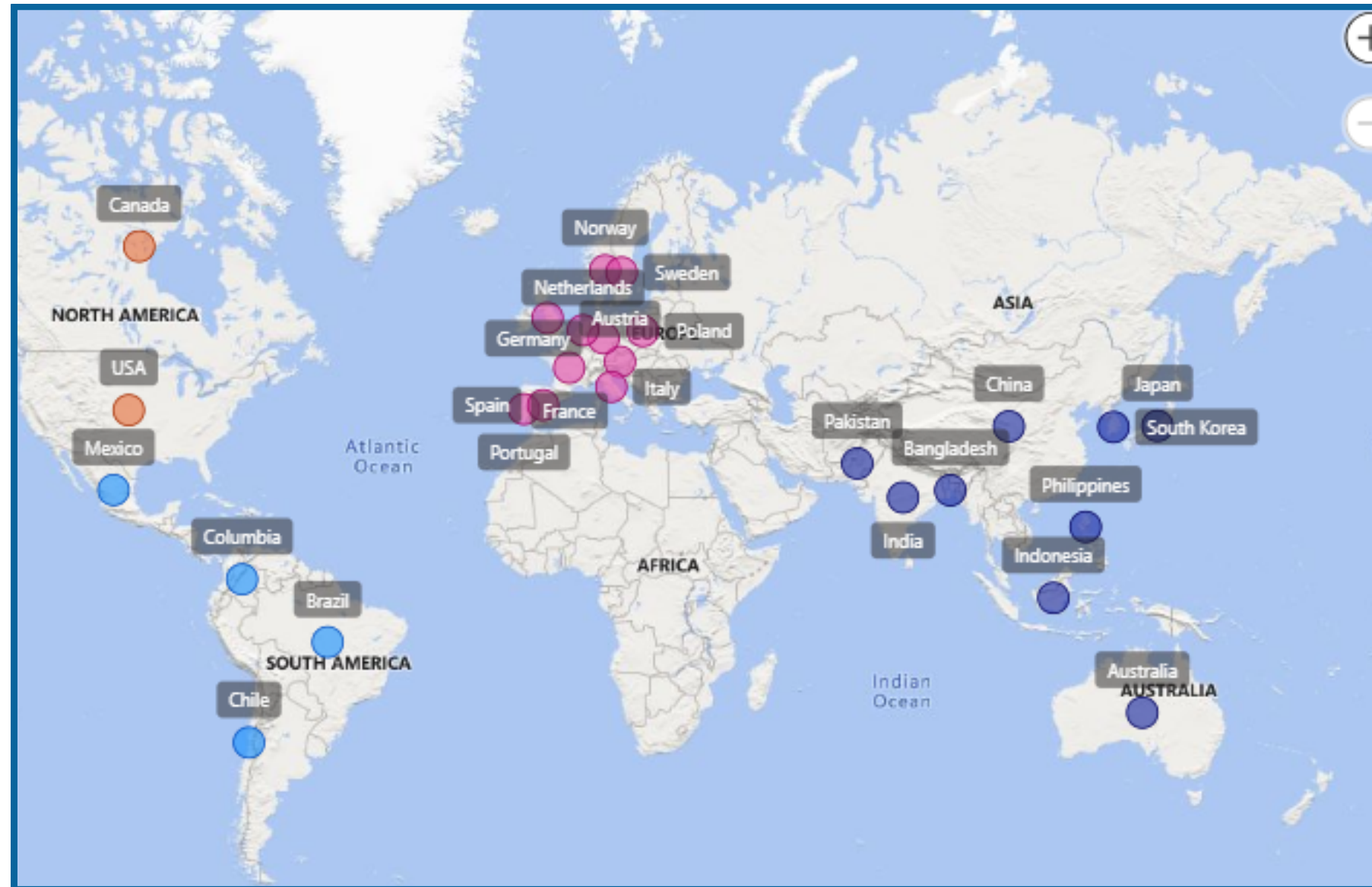
Market Presence
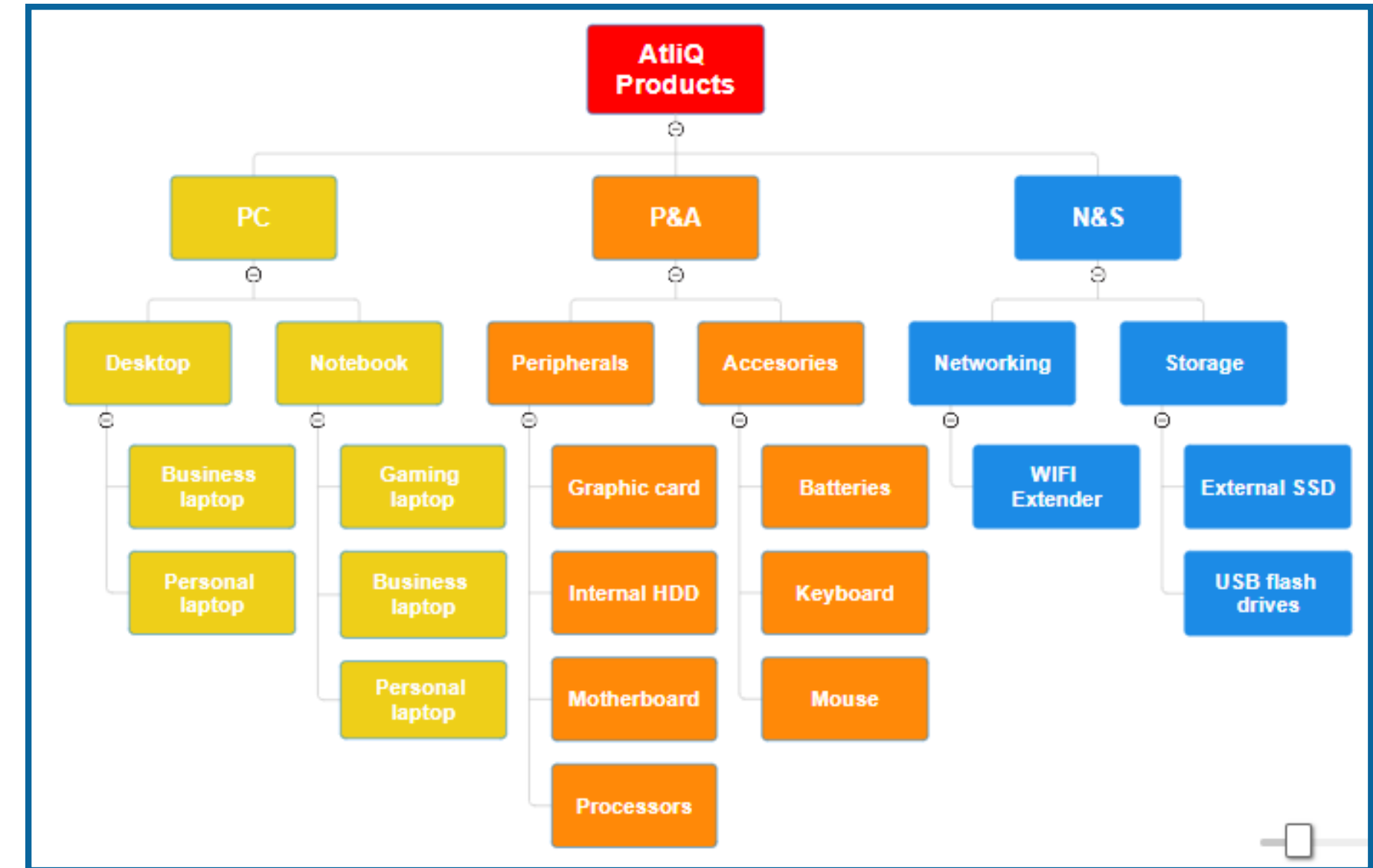
Product Line

3 INPUT DATA & TOOLS

- Input data consist of **FY 2020** and **FY 2021,** along with other tables like product details, customer details etc.

- Fiscal Year starts from **September**.

- **MySQL** - To run SQL queries

- **Power BI** - To visualize the query results

4

AD HOC REQUESTS RESULTS AND INSIGHTS

Output

	market
▶	India
	Indonesia
	Japan
	Philiphines
	South Korea
	Australia
	Newzealand
	Bangladesh

Request 1

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

AtliQ Exclusive has expanded its presence in **8 key** markets within the APAC region.

Output

unique_product_2020	unique_product_2021	pcnt_change
245	334	36.33%

Request 2

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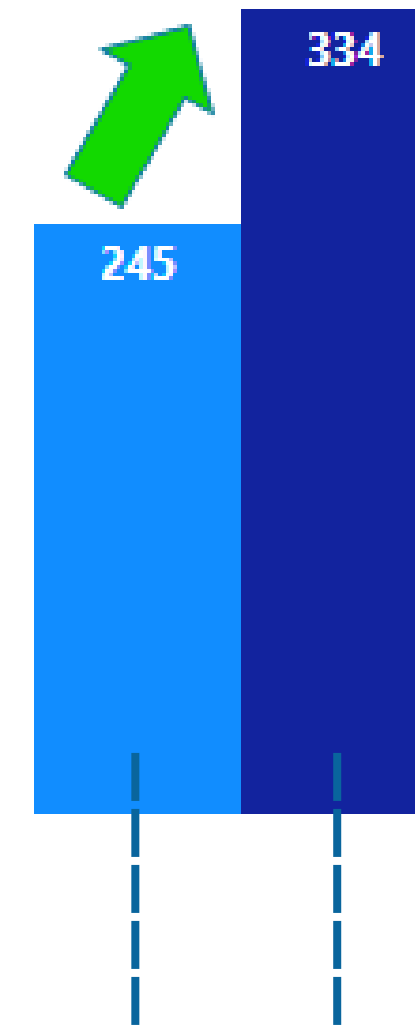
unique_products_2020

unique_products_2021

percentage_chg

Insights

In FY 2020, unique product count was **245** but in FY 2021 unique product count **increased** by **36%** to **334**.

Consistently engaging in **innovation** and launching **new products** into the market.

36.33%

Increase

334

245

Unique product 2020   Unique product 2021

Output

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

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

Horizontal bar chart:

Segment	Value
Notebook	129
Accessories	116
Peripherals	84
Desktop	32
Storage	27
Networking	9
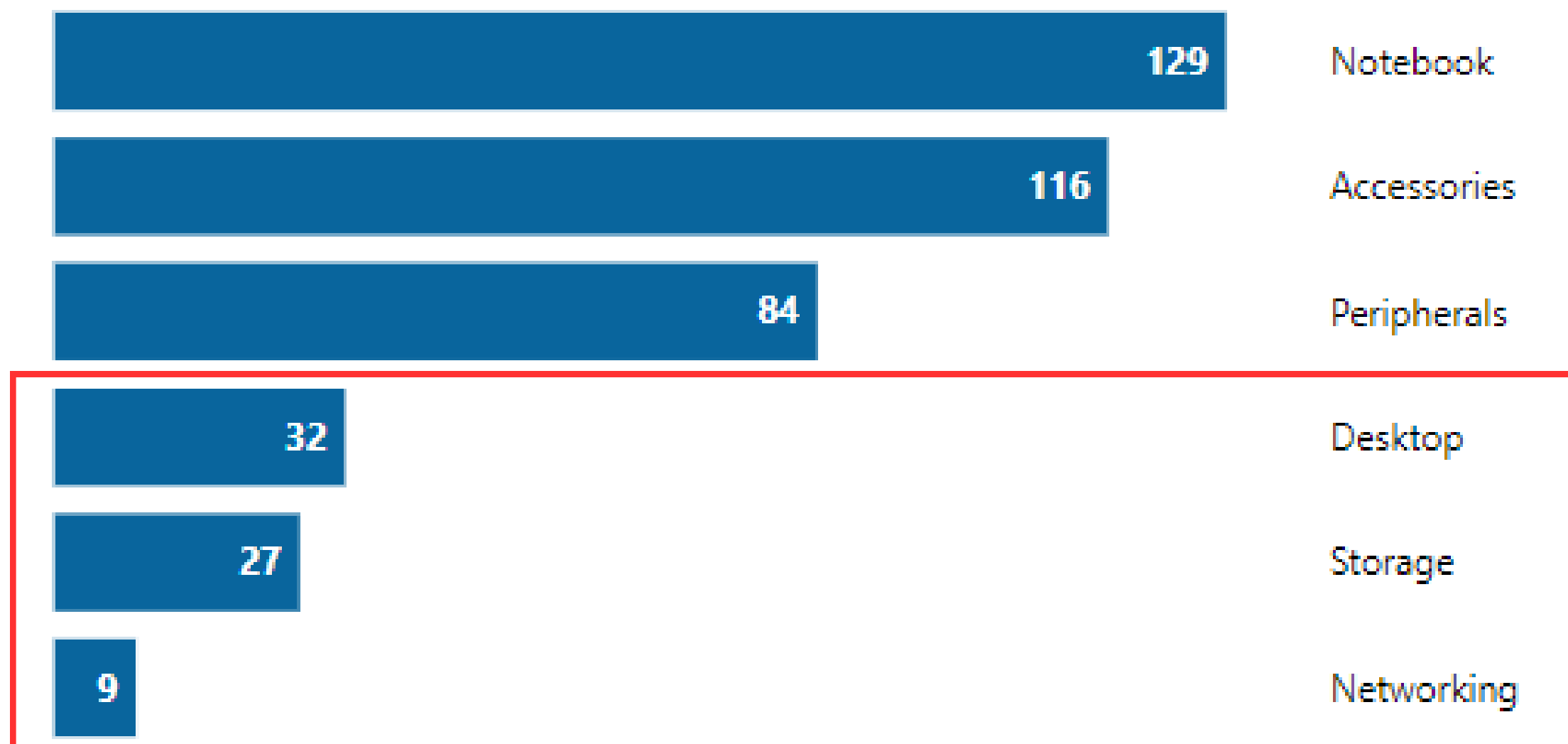
Notebook, **Accessories**, and **Peripherals** segments are experiencing notable manufacturing **growth compared** to Desktop, Storage, and Networking.

These **top three** segments account for **83%** of the total manufactured products.

Output

segment	product_count_2020	product_count_2021	difference
Accessories	69	103	34
Desktop	7	22	15
Networking	6	9	3
Notebook	92	108	16
Peripherals	59	75	16
Storage	12	17	5

Request 4

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

Insights

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 ⬆

Accessories had the **largest** increase in production whereas **Storage** and **Networking** segments showed **slow** growth.

Output

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

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

Insights
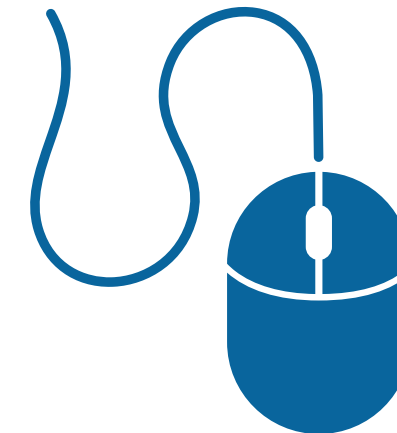
Product with **Highest** Manufacturing cost

$ 240.54

A6120110206

AQ HOME Allin1 Gen 2

Personal Desktop

Product with **Lowest** Manufacturing cost

$ 0.89

A2118150101

AQ Master wired x1 Ms

Mouse

Output

| customer_code	customer	average_discount_percentage
90002009	Flipkart	0.3083
90002006	Viveks	0.3038
90002003	Ezone	0.3028
90002002	Croma	Croma 5
90002016	Amazon	0.2933

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
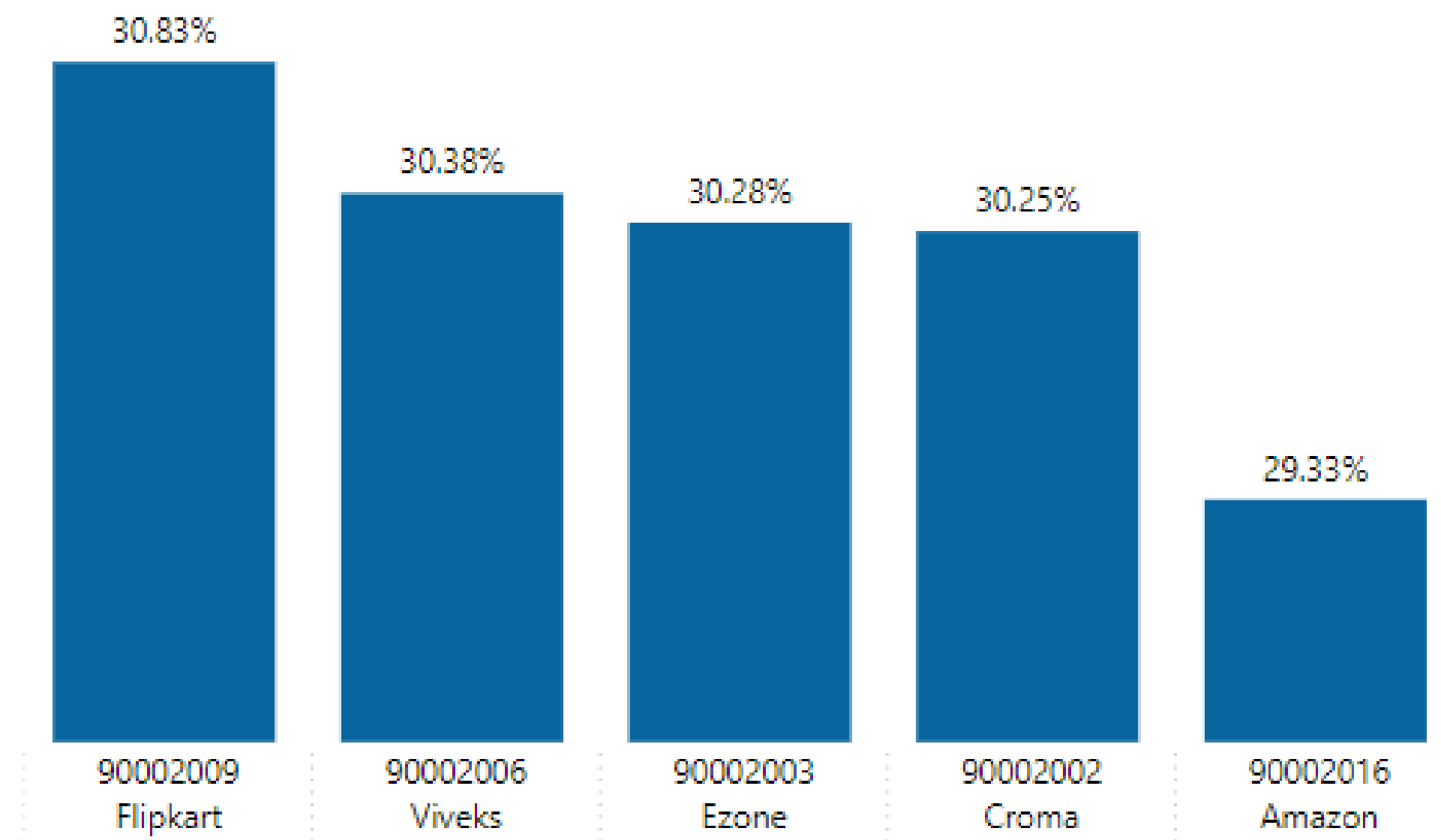
In 2021, nearly **identical** pre-invoice discounts were extended to each of the top 5 customers. Notably, **Flipkart** received the **highest** discount among customers in the Indian market, amounting to **30.83%**.

Output

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

Request 7

Get the complete report of the Gross sales amount for the customer "Atliq Exclusive" for each month. The final report contains these columns:
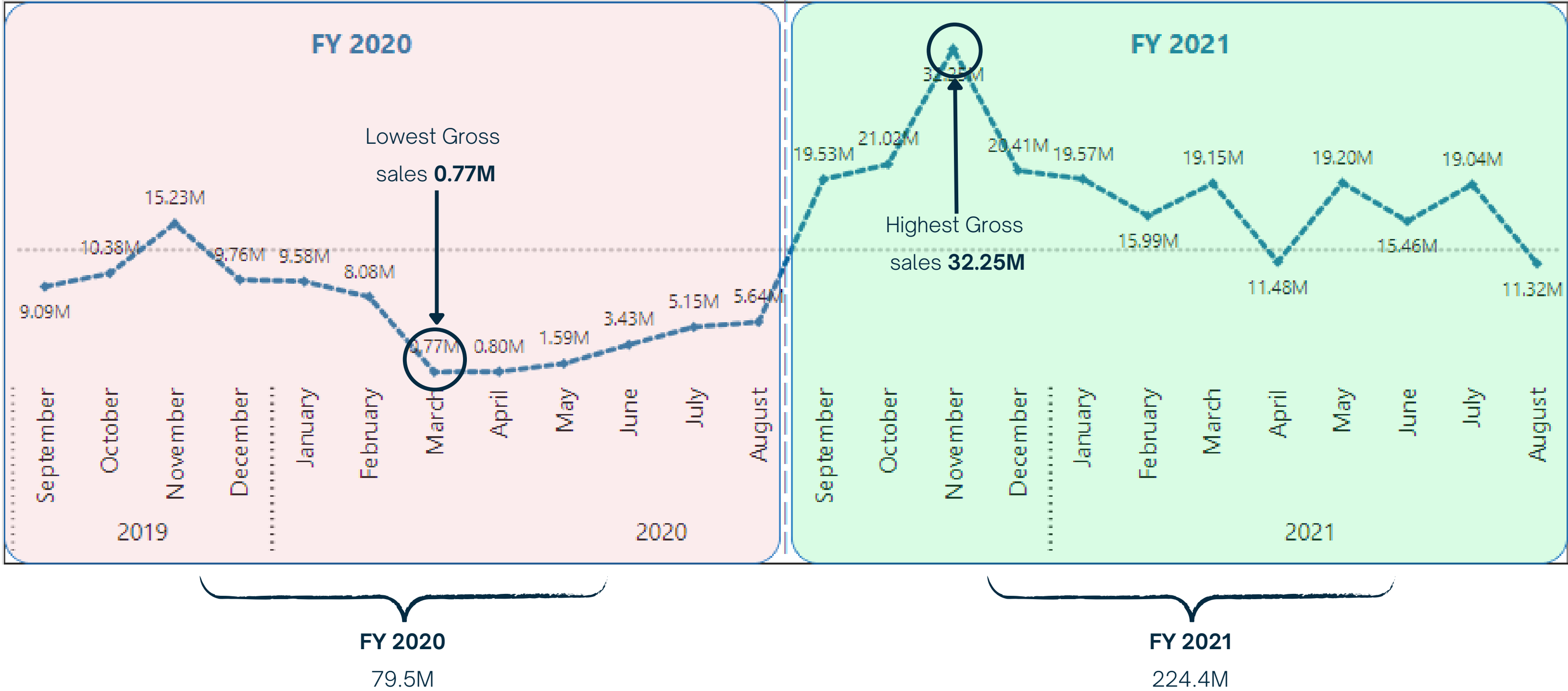
Month

Year

Gross sales Amount

Insights — For AtliQ Exclusive, **decline** in sales from **March 2020 to August 2020** can be attributed to the impact of the **COVID-19** pandemic.
As the **economy** reopened, sales for AtliQ Exclusive **surged**, reaching their **peak** in **November 2020.**

Output

Quarters	total_sold_quantity
1	7.01 M
2	6.65 M
4	5.04 M
3	2.08 M

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

Insights

Month	Quarter	Total sold quantity
September	Q1	1.76M
October	Q1	2.19M
November	Q1	3.05M
January	Q2	1.76M
February	Q2	1.70M
December	Q2	3.18M
March	Q3	0.24M
April	Q3	0.82M
May	Q3	1.02M
June	Q4	1.56M
July	Q4	1.69M
August	Q4	1.79M
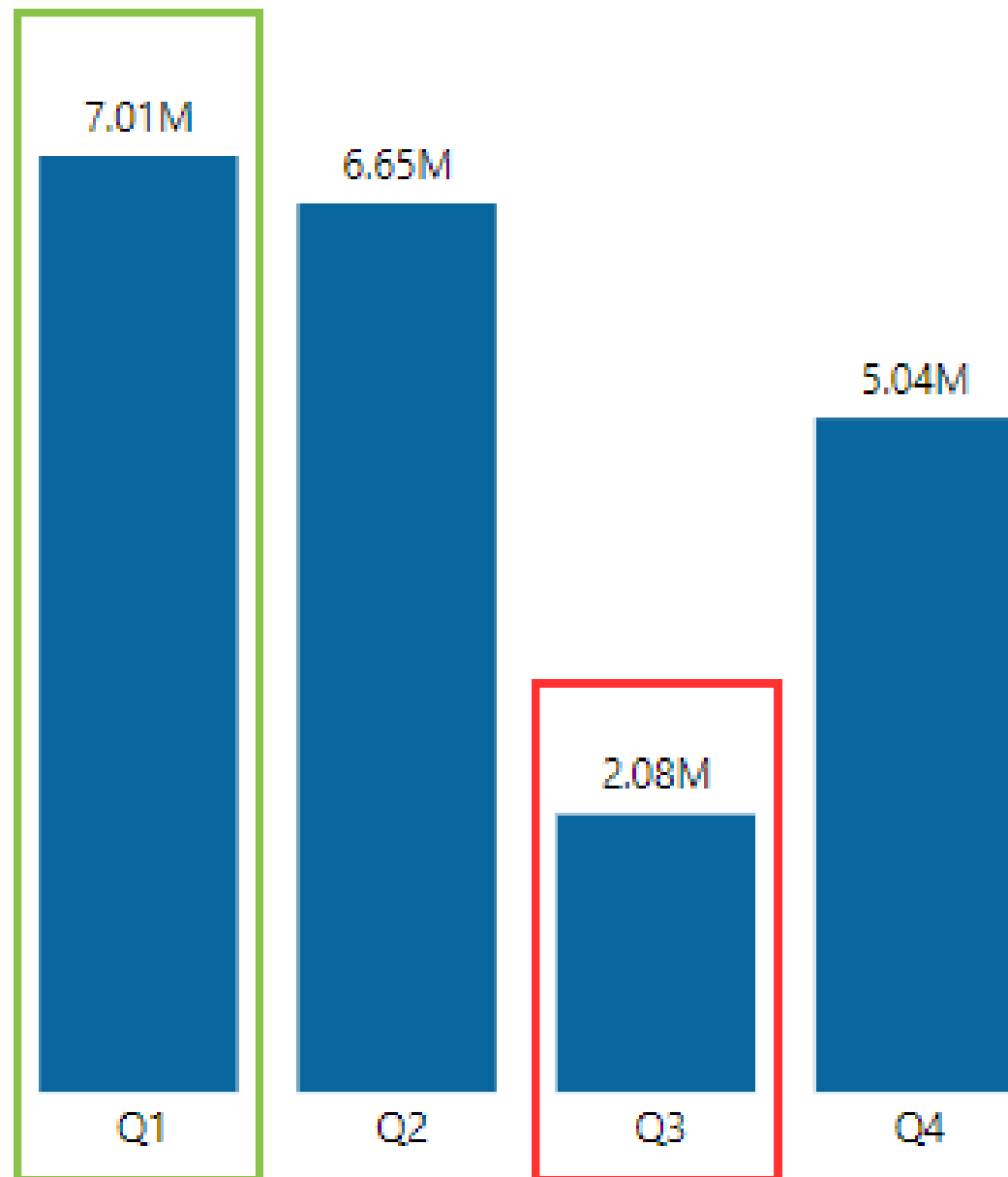
Highest number of units were sold in **Q1** of FY 2020, while **Q3** witnessed the **lowest** sales.

In **Q3** of FY 2020, the sold quantity **decreased** to 2.1 million, reflecting the **peak** impact of **COVID-19** from March to May.

Output

channel	gross_sale	pcnt
Retailer	1924.17 M	73.22%
Direct	406.69 M	15.47%
Distributor	297.18 M	11.31%

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

Insights

Distributor 297.18M (11.31%)

Direct
406.69M (15.47%)

Retailer
1924.17M (73.22%)
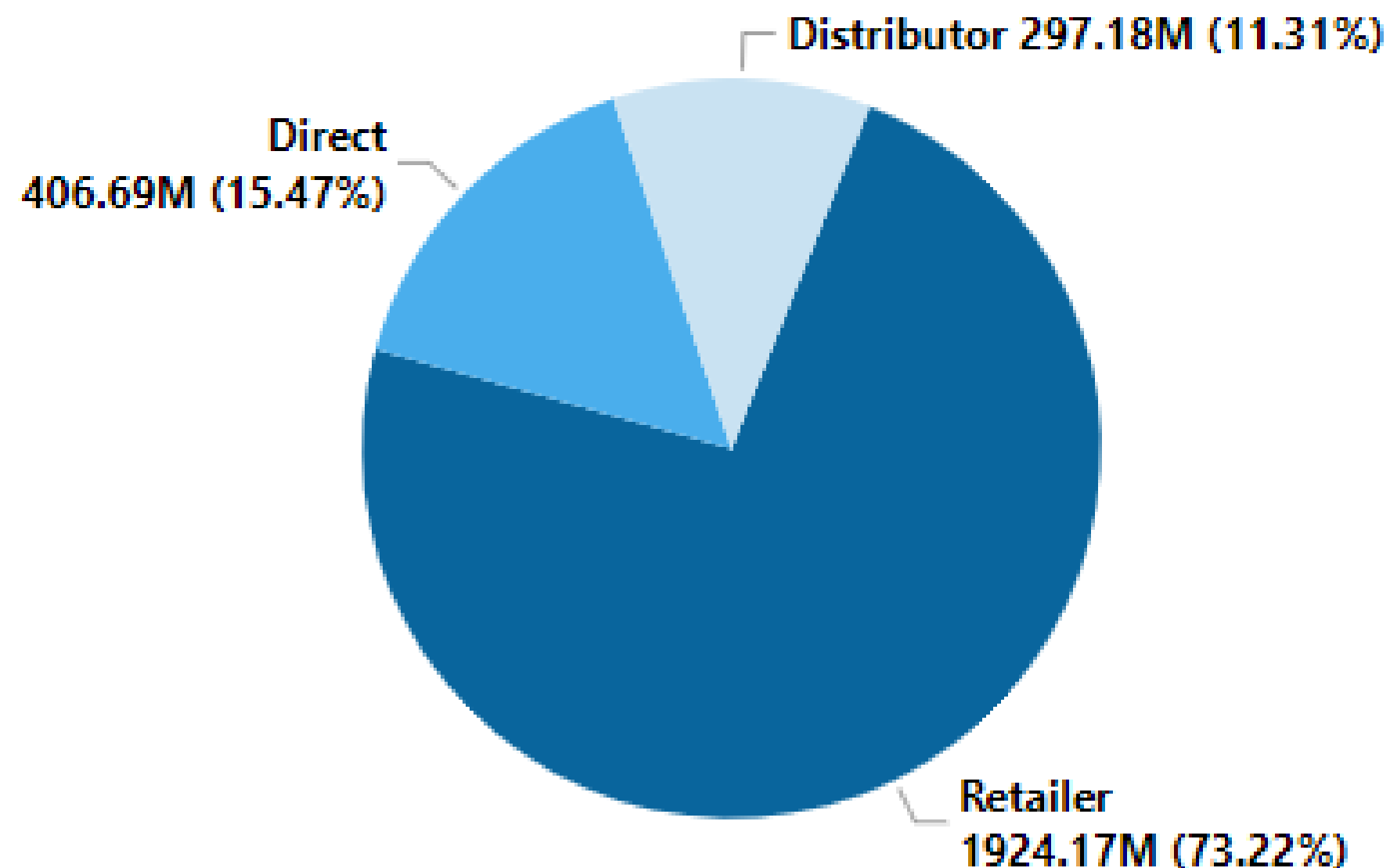
Retail channel accounts for the **majority** of sales, comprising approximately **75%** of the total, followed by the **Direct** and **Distributor** channels.

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

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,
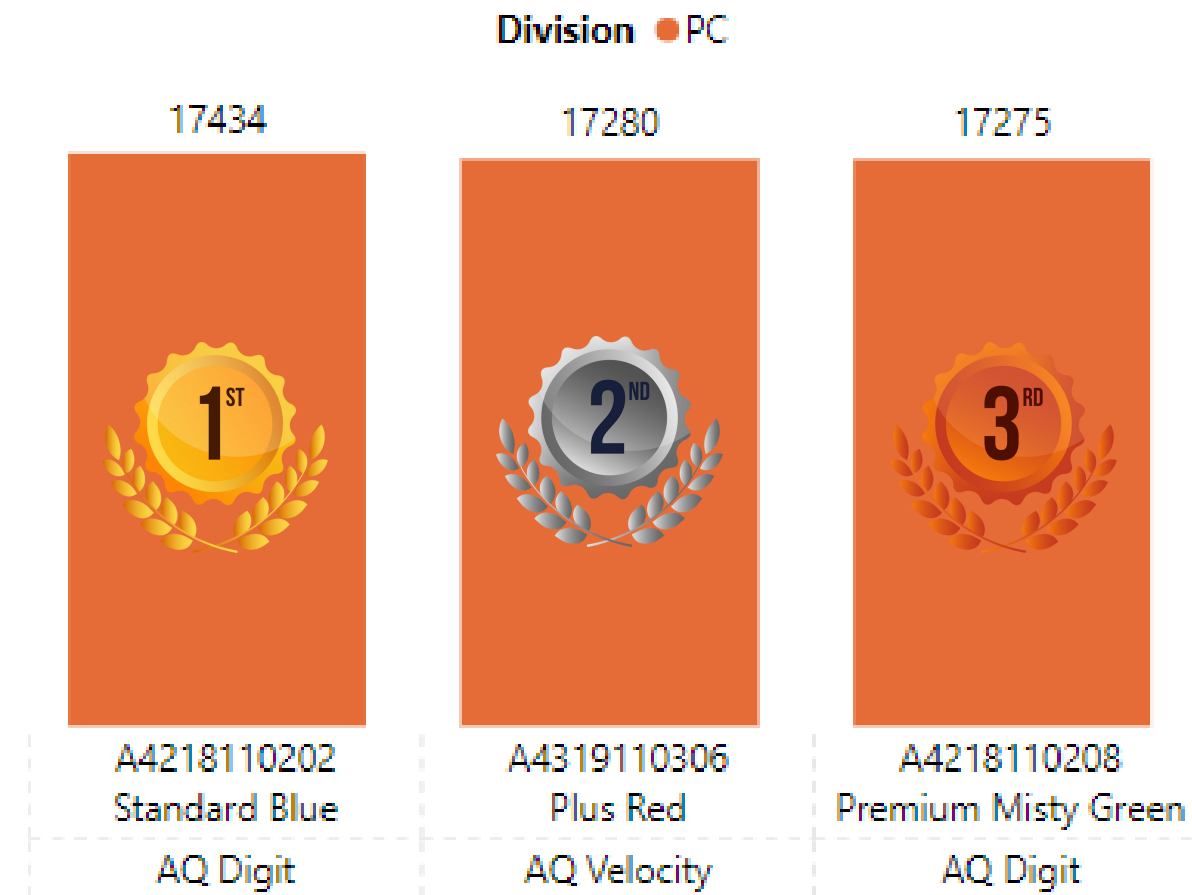
division

product_code

product

total_sold_quantity

rank_order

Insights

17434	17280	17275
1ST	2ND	3RD
A4218110202	A4319110306	A4218110208
Standard Blue	Plus Red	Premium Misty Green
AQ Digit	AQ Velocity	AQ Digit

701373	688003	676245
1ST	2ND	3RD
A6720160103	A6818160202	A6819160203
Premium	Plus	Premium
AQ Pen Drive 2 IN 1	AQ Pen Drive DRC	

428498	419865	419471
1ST	2ND	3RD
A2319150302	A2520150501	A2520150504
Standard 2	Standard 1	Plus 2
AQ Gamers Ms	AQ Maxima Ms	

THANK YOU!

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