

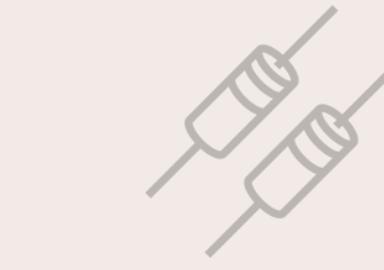
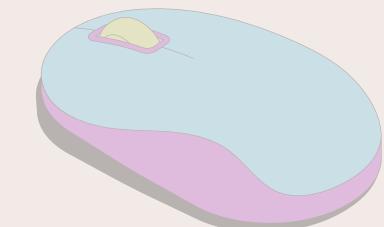
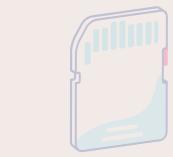
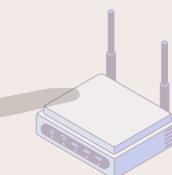
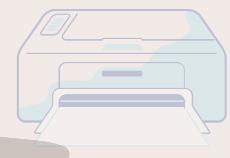
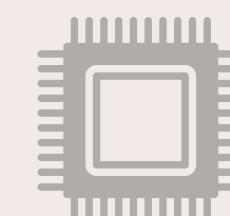


Ad-Hoc Request

Customer Goods



Created By : Femina





Content

- About Atliq Hardware.
- Problem statement.
- Dataset & Model.
- Ad-Hoc Request , Query and Output.
- Visualization and Insights.



Objectives

- **Atliq Hardwares** (imaginary company) is one of the leading computer hardware producers in India and well expanded in other countries too
- However, the management is not receiving sufficient insights for quick, smart, data-informed decisions..
- They want to expand their data analytics team by adding several junior data analysts.

To access condidates.....

TONY



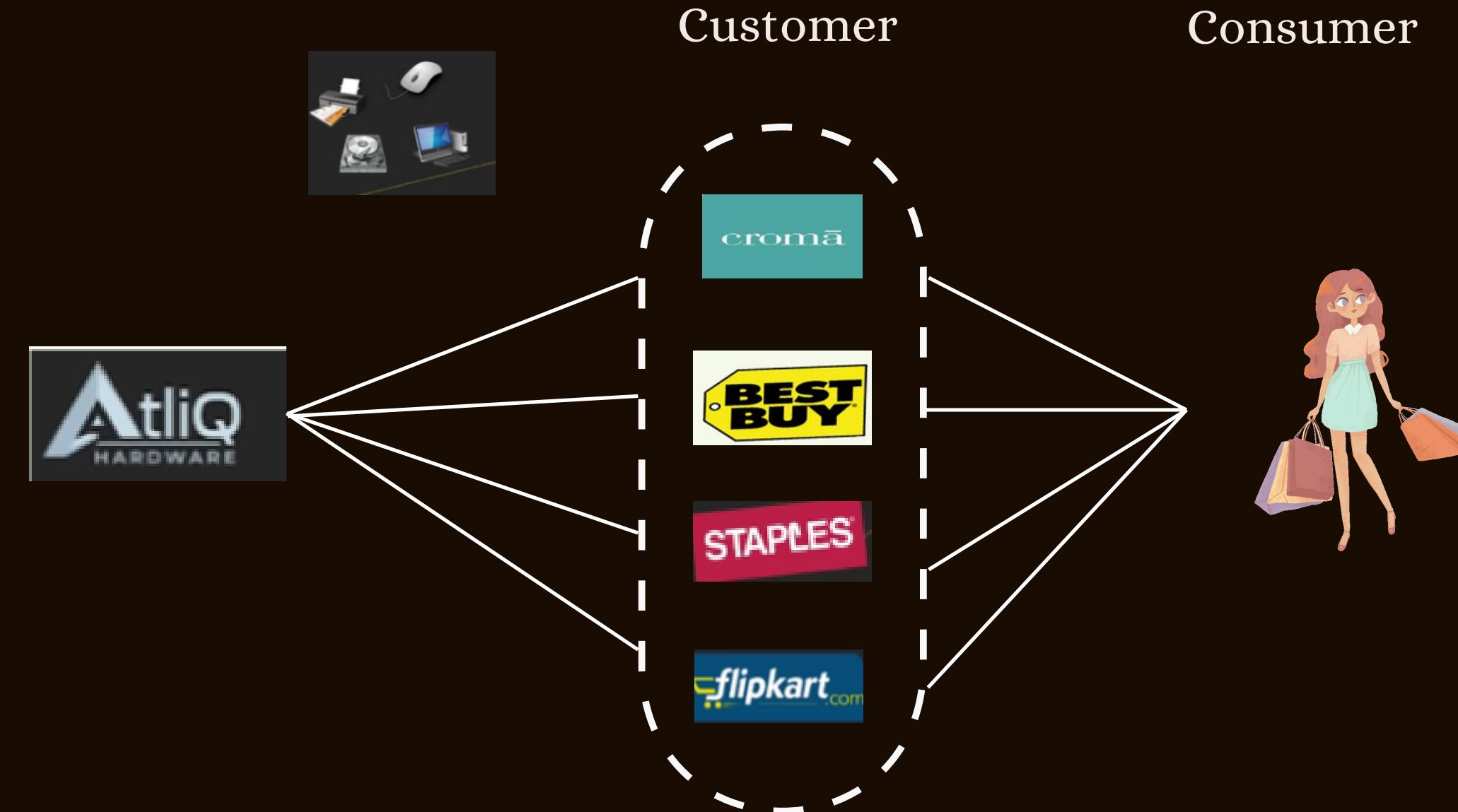
Data analytics director Tony Sharma wanted to hire someone who is good at both tech and soft skills.

Hence, he decided to conduct a SQL challenge which will help him understand both the skills.

The company is looking for insights on 10 Ad-hoc requests.



BUSSINES MODEL



Customers = Stores.

Consumers = The person who is consuming the product.



PLATFORMS

Brick & mortar



E-commerce

Brick & mortar = An actual physical stores , where you can go & buy stuff.
E-commers = Buy stuff from online websites.



CHANNELS

RETAILER



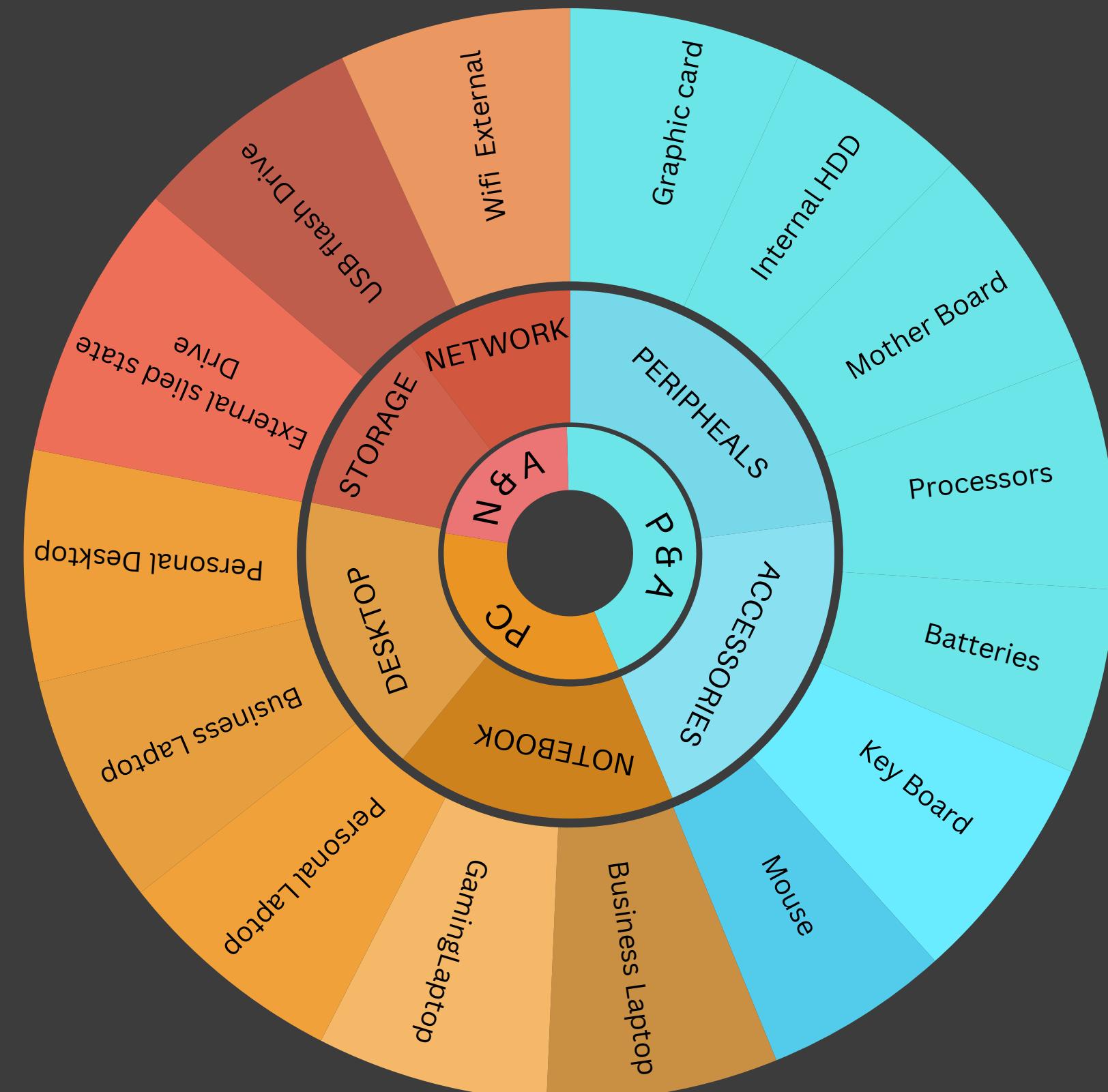
DIRECT



DISTRIBUTOR



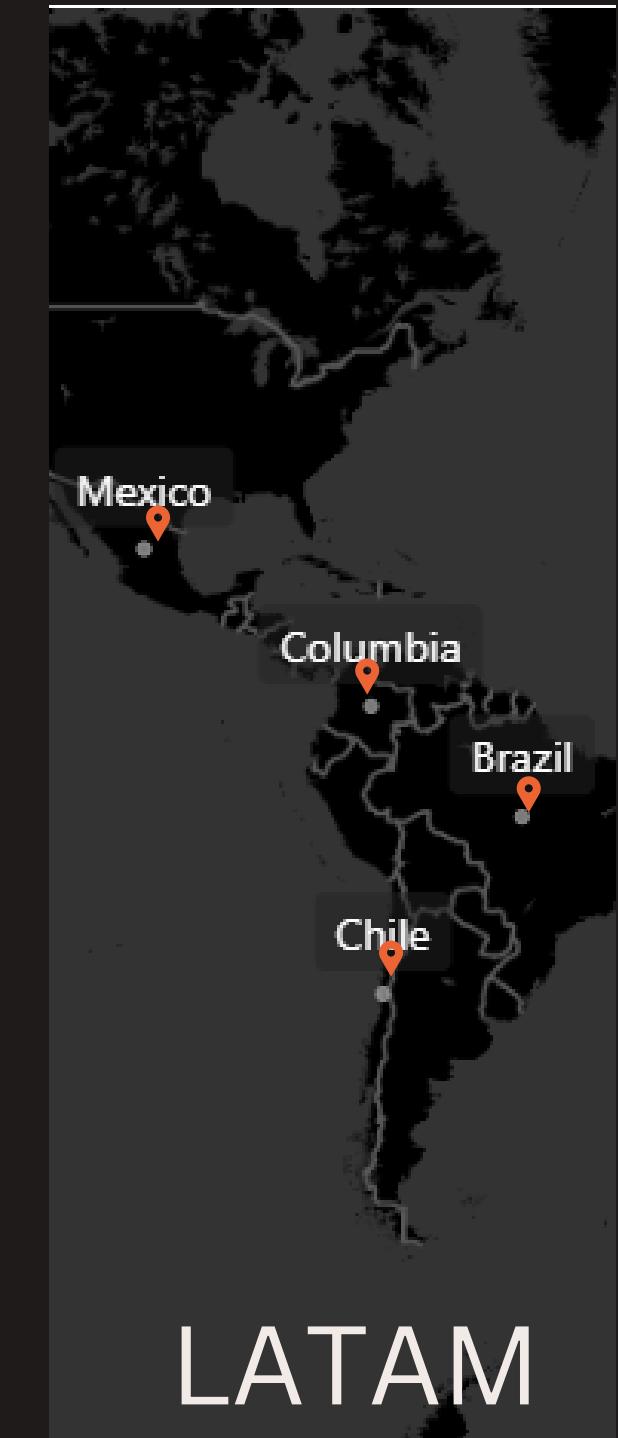
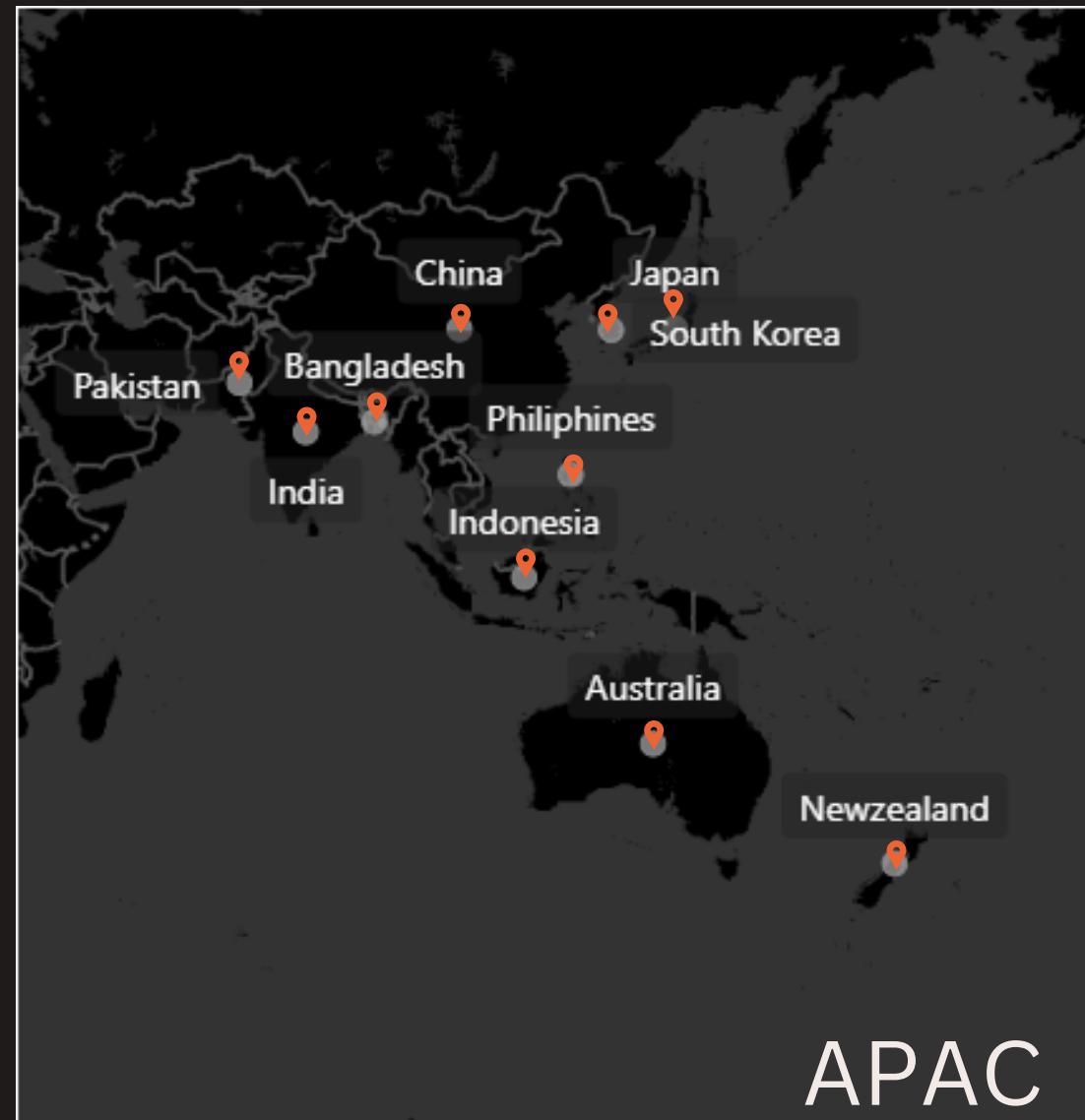
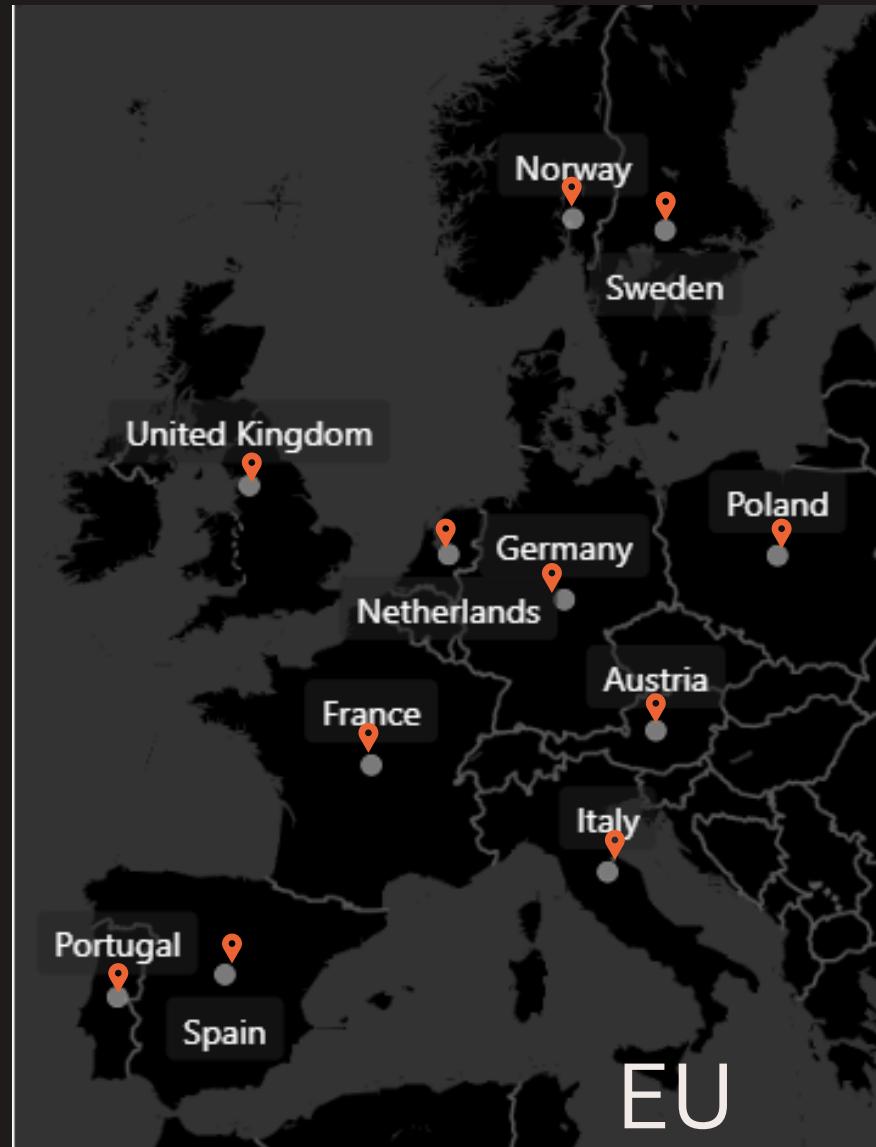
Manufacturing Line Of Atliq HW



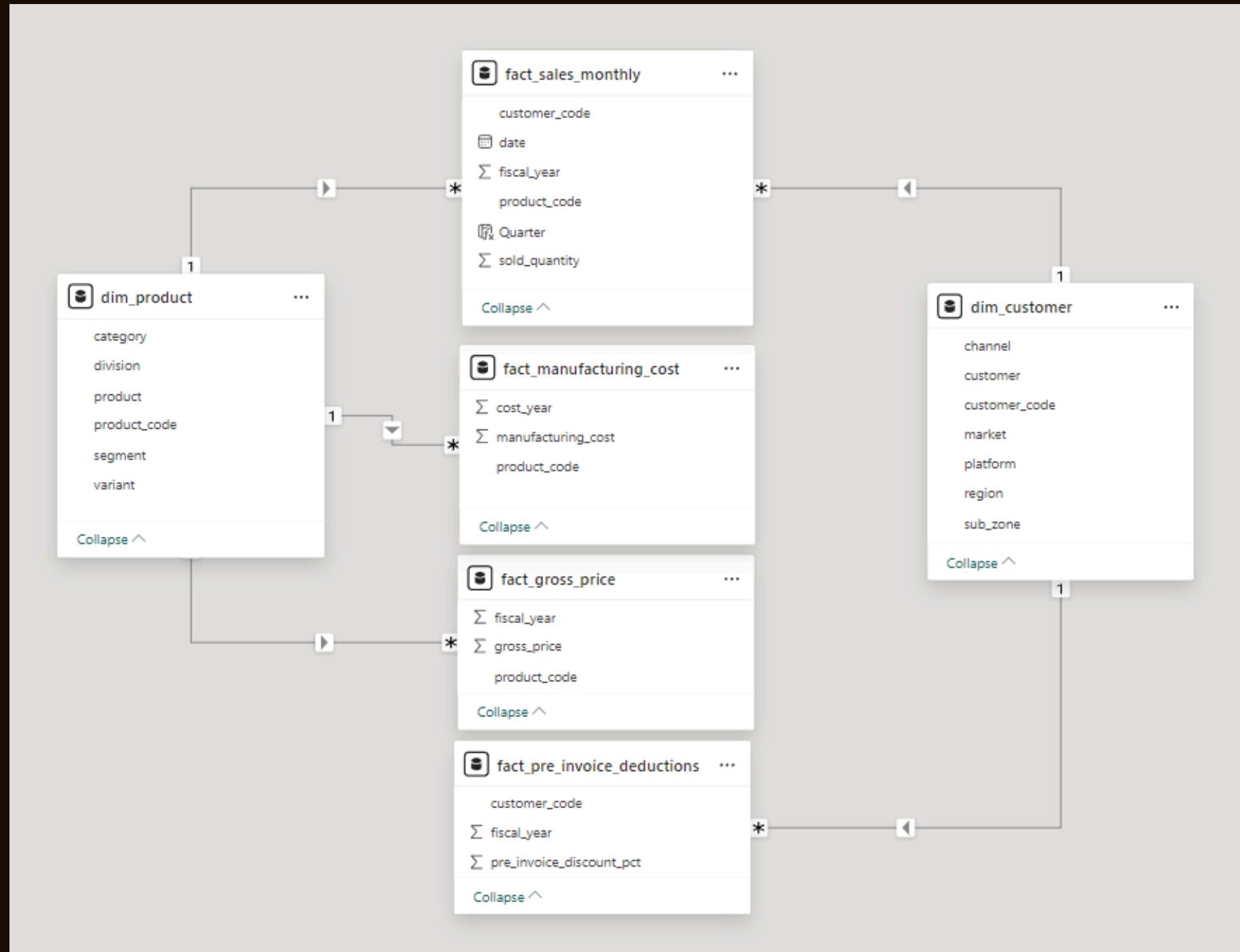
Outer Circle **Category** → Middle Circle **Segment** → Inner Circle **Division**

FISCAL YEAR
Sep 19 - Aug 20
FY 2020

Company Market's



Data Model & Request's



Codebasics SQL Challenge

Requests:

- Provide the list of markets in which customer 'Atliq 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

codebasics.io

- 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
- 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
- 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
- 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_min
percentage
- 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

Tools Used



Analysis



Visualization

OUTPUT

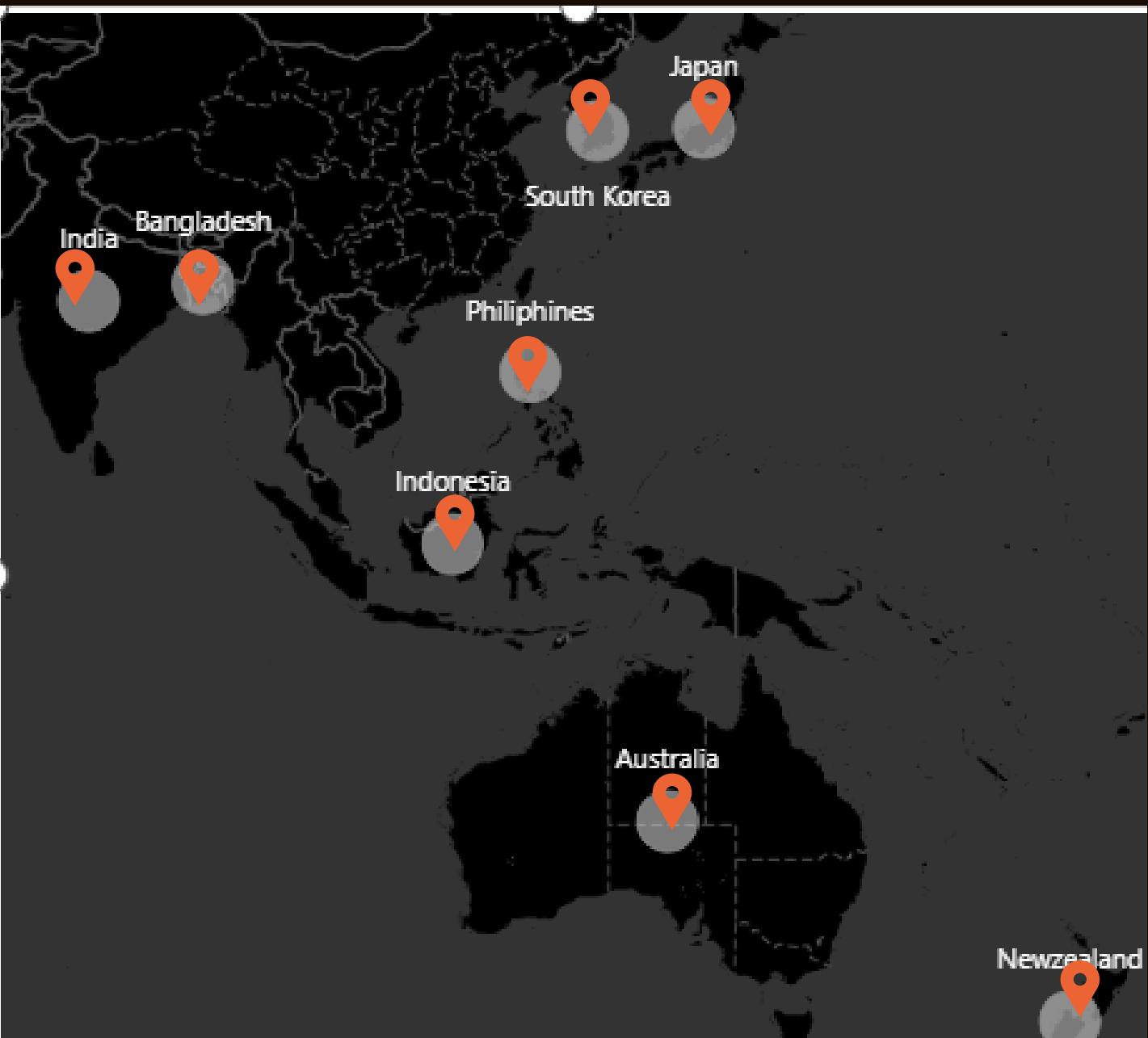
REQUEST 1

-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

Insights

Atliq Exclusive has a strong and expanding presence in the Asia Pacific (APAC) region, operating successfully in 8 countries.



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_product_2020	unique_products_2021	percentage_chg
▶	245	334	36.33

Insights

- The number of unique products grew from **245** in **2020** to **334** in **2021**, which is a **36.33%** increase.
- This significant growth highlights the company's commitment to innovation and expanding its product range to serve more customers

Unique Products 2021 Vs 2020



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

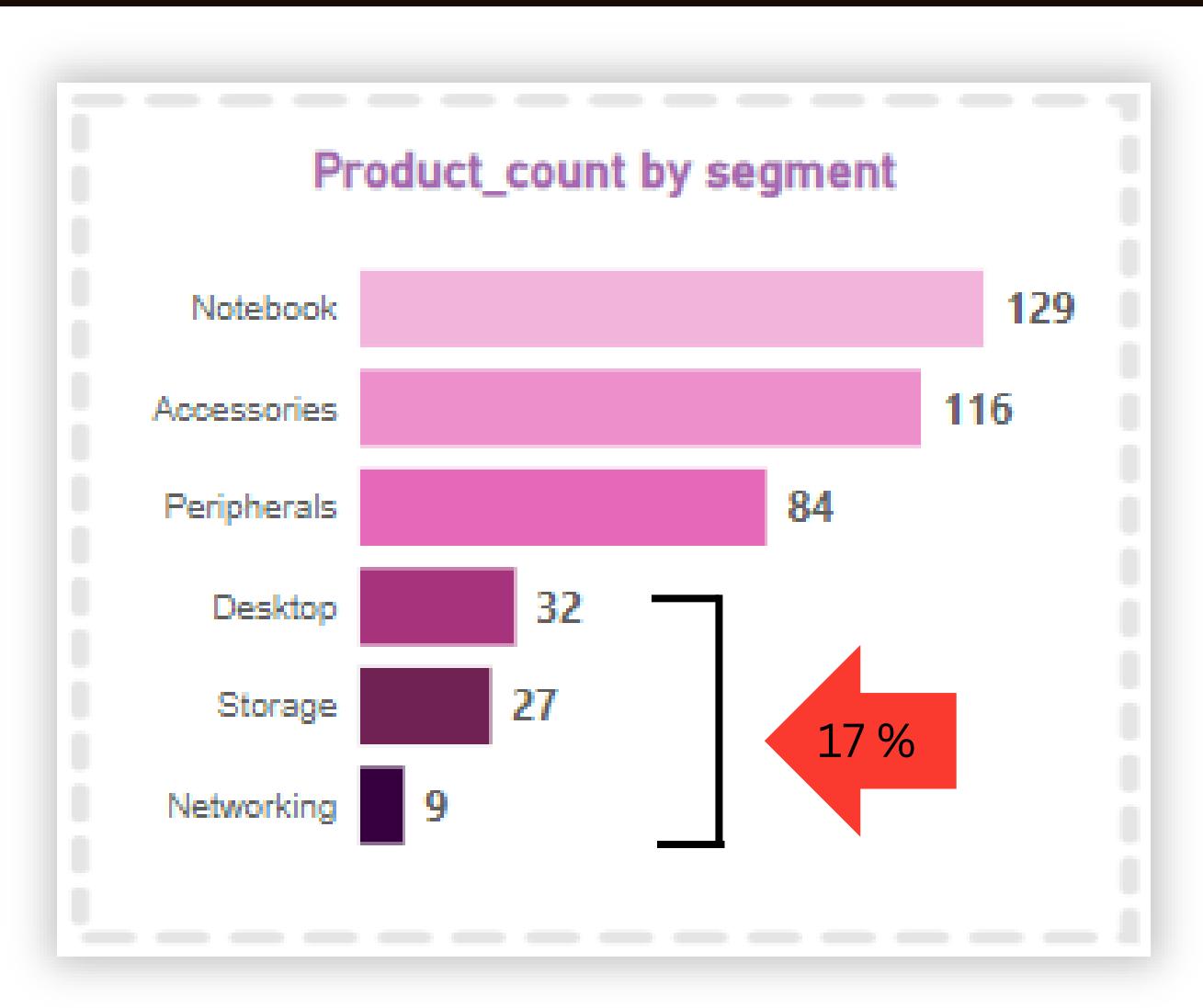
product_count

OUTPUT

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

Insights

- Notebooks, Accessories, and Peripherals are experiencing strong growth in manufacturing, accounting for 83% of AtliQ's total product lineup.
- On the other hand, Desktops, Storage, and Networking products make up only 17%.
- This suggests that AtliQ should focus more on expanding its Networking products to better align with customer needs and market trends.



REQUEST 4

- Follow-up: Which segment had the most increase in unique products in 2021 vs 2020? The final output contains these fields,

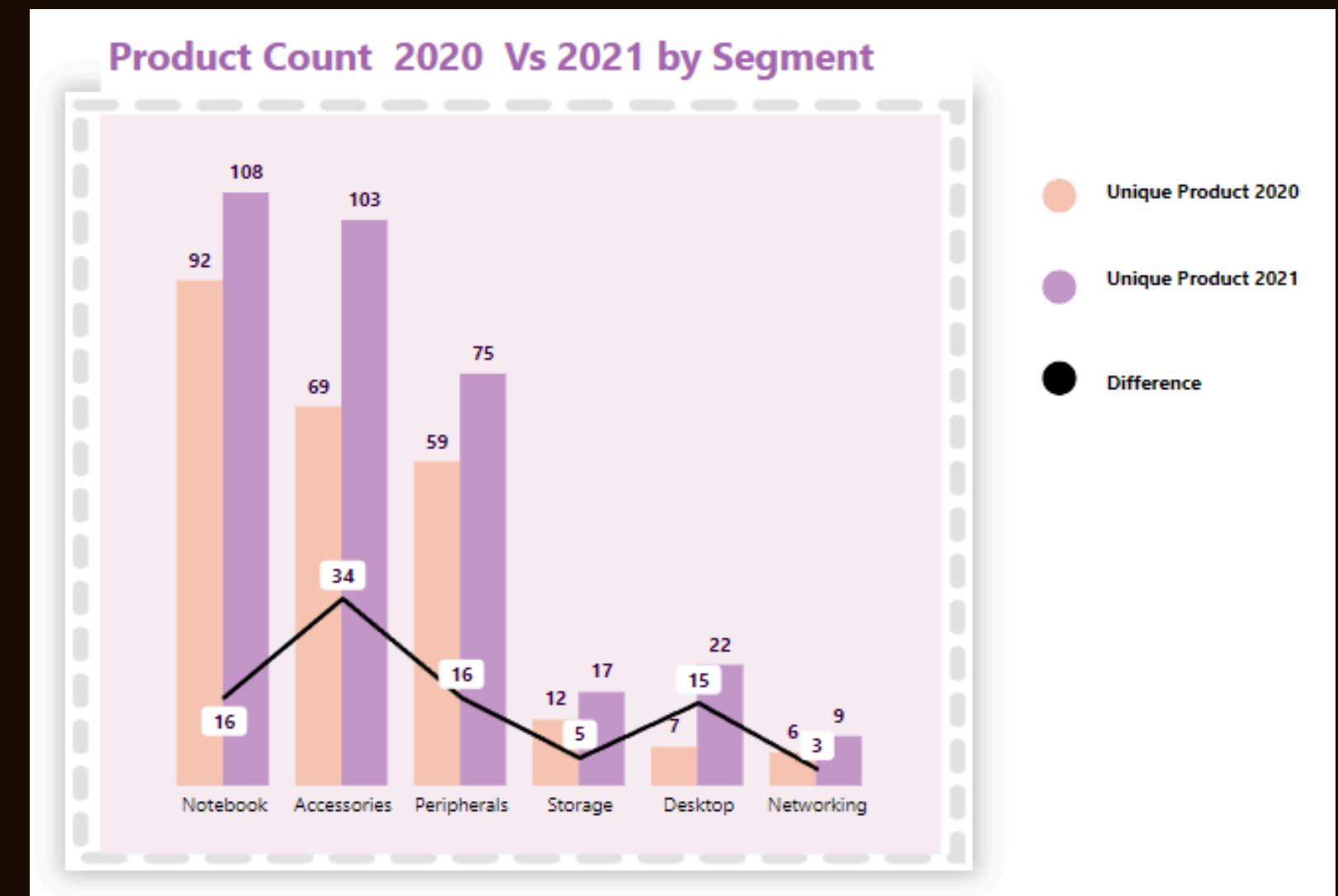
segment
product_count_2020
product_count_2021
difference

OUTPUT

	segment	Product_count_2020	Product_count_2021	difference
▶	Accessories	69	103	34
	Desktop	7	22	15
	Networking	6	9	3
	Notebook	92	108	16
	Peripherals	59	75	16
	Storage	12	17	5

Insights

- **Accessories** had the biggest growth , adding **34** new products from **2020** to **2021**.
- **Desktop** products grew rapidly, increase from **7** to **22** unique products.
- **Storage** and **Networking** showed slower growth , producing the fewest new products during this time



REQUEST 5

- Follow-up: -Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields,

product_code

product

manufacturing_cost

OUTPUT

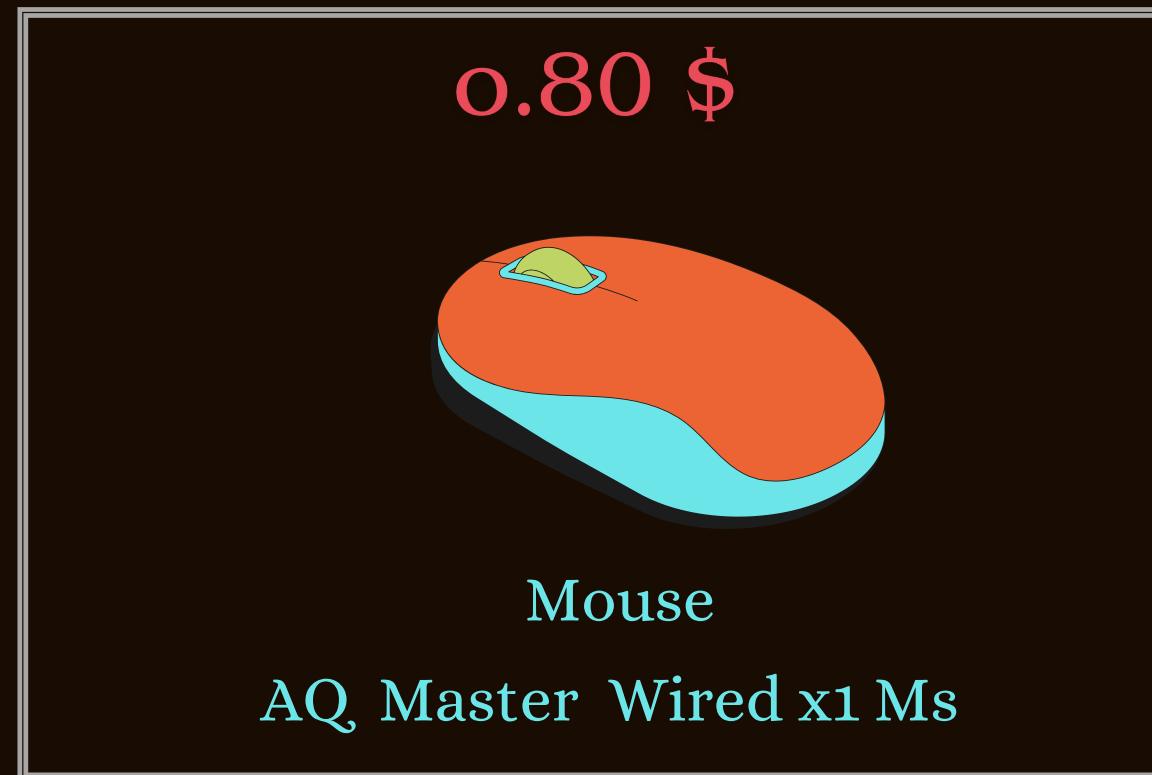
	product_code	product	manufacturing_cost
▶	A6120110206	AQ HOME Allin1 Gen 2	240.5364
	A2118150101	AQ Master wired x1 Ms	0.8920

Insights

Which of our products has taking the highest manufacturing cost?



Which of our products has taking the lowest manufacturing cost?



REQUEST 6

- Follow-up: 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

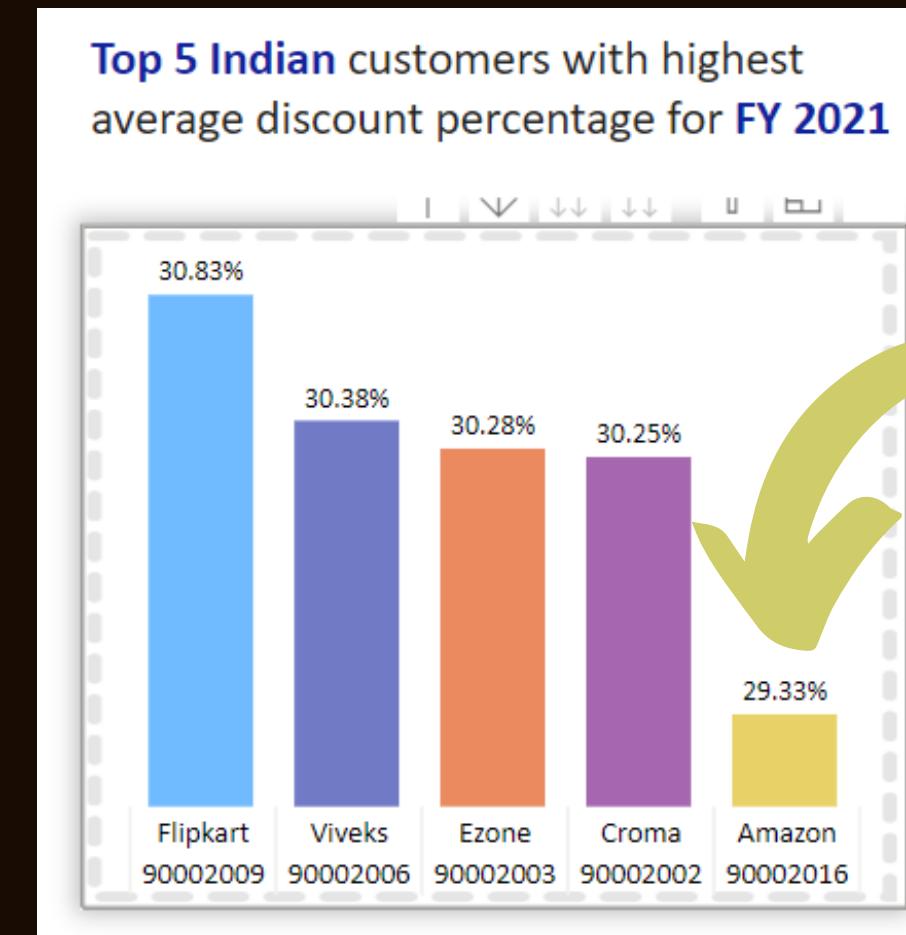
average_discount_percentage

OUTPUT

	customer_code	customer	average_discount_percentage
▶	90002009	Flipkart	30.83%
	90002006	Viveks	30.38%
	90002003	Ezone	30.28%
	90002002	Croma	30.25%
	90002016	Amazon	29.33%

Insights

- **Flipkart** achieved the largest average pre-invoice discount in the Indian market with a discount of **30.83 %**.
- **Amazone** received the lowest average pre-invoice discount among the top 5 customers , with a discount of **29.33%**.



OUTPUT

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:

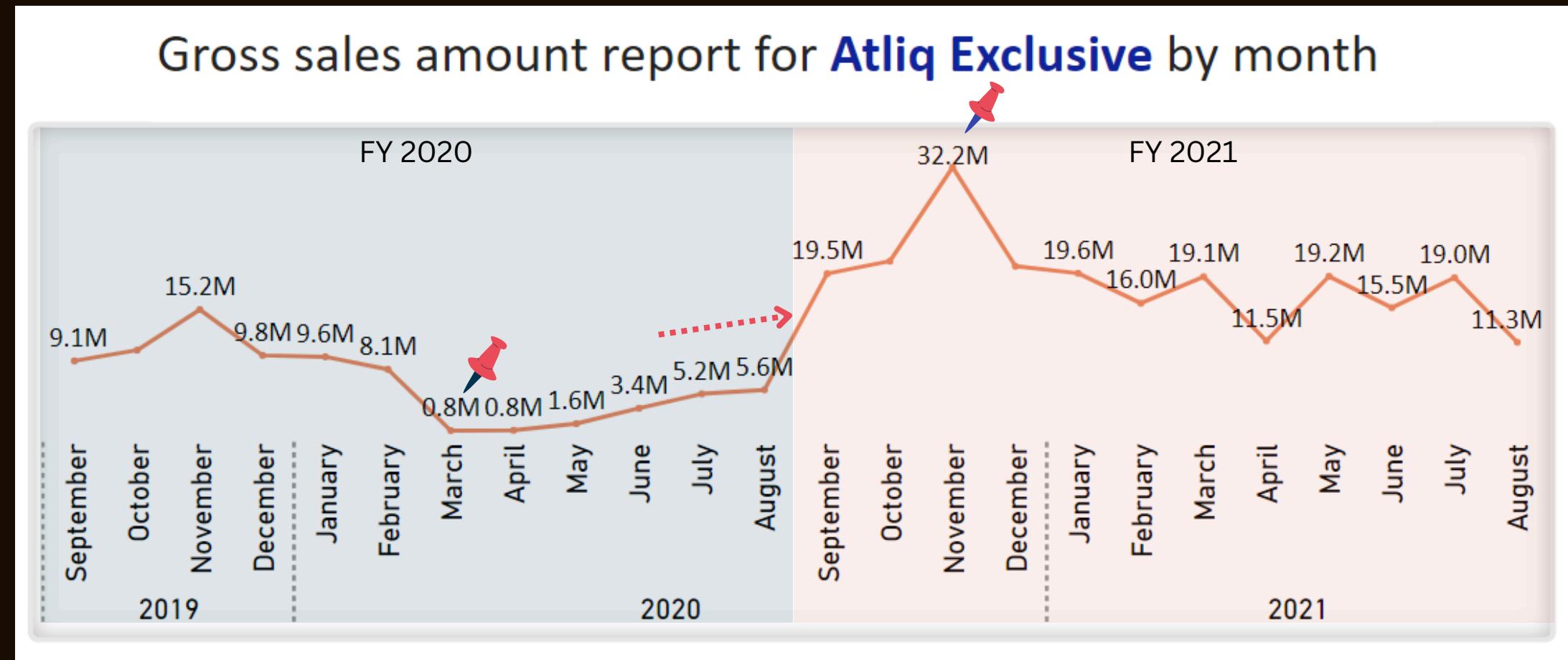
Month
Year
Gross sales Amount

	month	year	gross_price_amount
▶	2019-09-01	2019	1066547.8523
	2019-10-01	2019	991044.9686
	2019-11-01	2019	1115465.2663
	2019-12-01	2019	670126.7780
	2020-01-01	2020	1092487.7819
	2020-02-01	2020	910017.4929
	2020-03-01	2020	243903.7724
	2020-04-01	2020	198249.3858
	2020-05-01	2020	468715.9720
	2020-06-01	2020	557983.5133
	2020-07-01	2020	973696.0065
	2020-08-01	2020	569510.0347
	2020-09-01	2020	1725995.9702
	2020-10-01	2020	1439452.3618
	2020-11-01	2020	1585372.5202
	2020-12-01	2020	923110.7819
	2021-01-01	2021	1731068.0948
	2021-02-01	2021	1402643.4837
	2021-03-01	2021	1518630.0374
	2021-04-01	2021	887564.4059
	2021-05-01	2021	1741384.9821
	2021-06-01	2021	1403534.8562
	2021-07-01	2021	1520631.3684
	2021-08-01	2021	891262.6863

Gross price
in Millions

Insights

- November 2020 achieved the highest gross sales for AtliQ Exclusive of **32.25 Million**, While March 2020 experienced the lowest gross sales of **0.77 Million**.
- The big drop in gross sales in March 2020 was due to the COVID-19 pandemic.



OUTPUT

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,

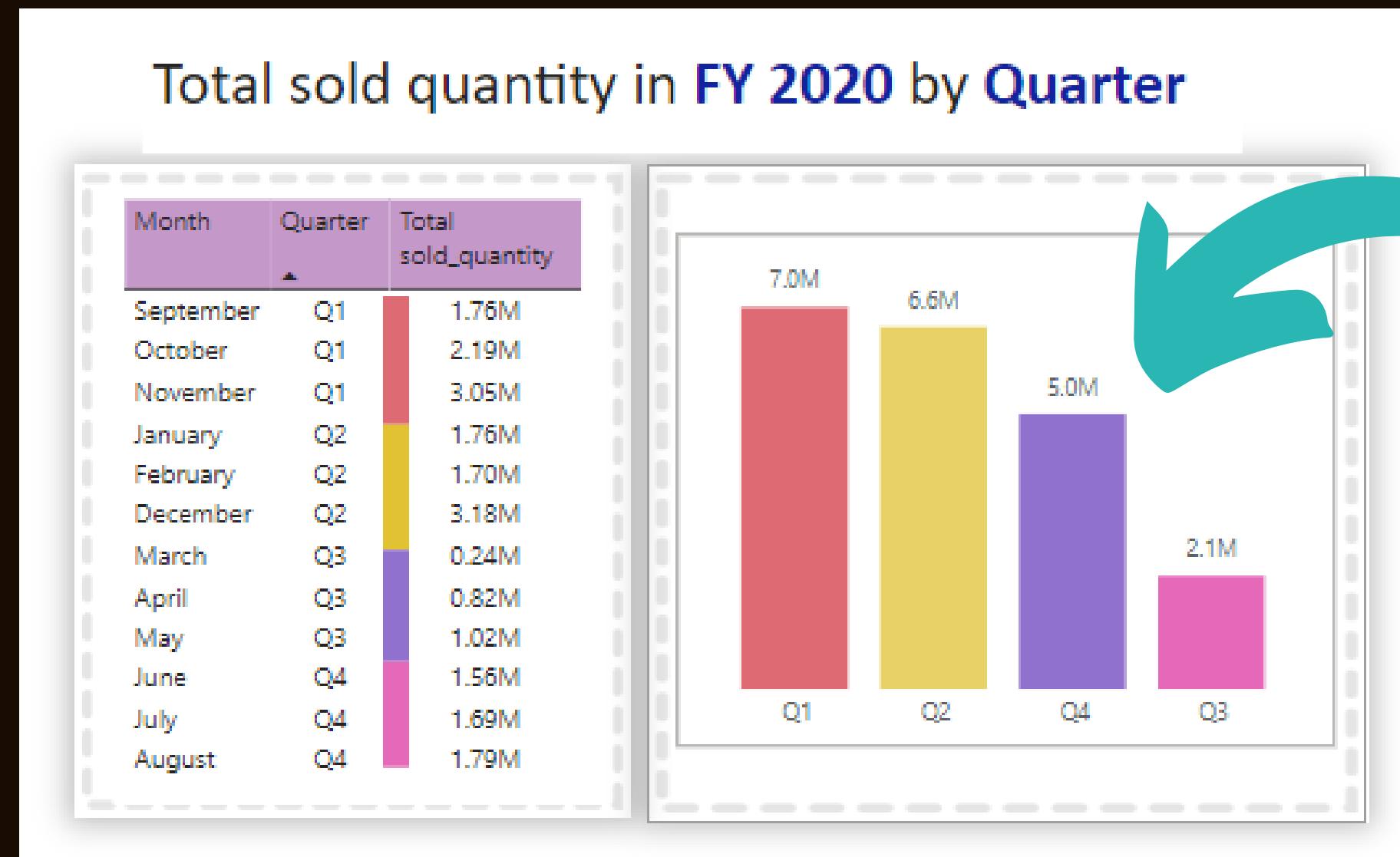
Quarter

total_sold_quantity

	quarter	total_sold_quanidity
▶	Q1	7005619
	Q2	6649642
	Q4	5042541
	Q3	2075087

Insights

- Sales peaked in Q1(September-November) FY 2020, with approximately 7 million units sold, reflecting strong early-year performance.
- However, in Q3(March-May), AtliQ faced a significant drop in sales, likely due to the challenging market conditions caused by the COVID-19 pandemic.
- Increase in Sales recorded in Q4(June - August).



OUTPUT

REQUEST 9

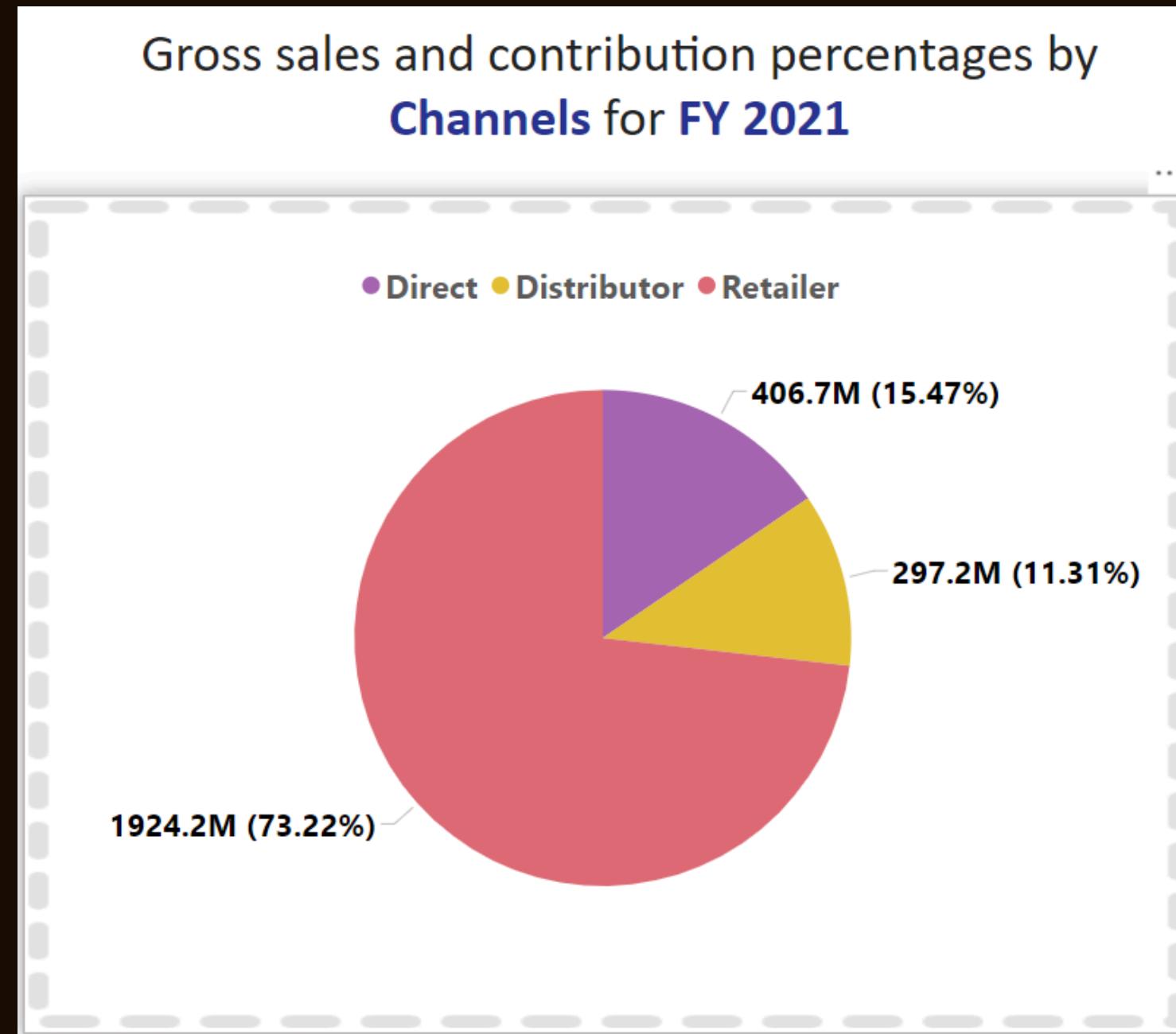
-Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution? The final output contains these fields,

channel
gross_sales_mln
percentage

	channel	Gross_sales_mln	percentage
▶	Retailer	1924.17 M	73.22 %
	Direct	406.69 M	15.48 %
	Distributor	297.18 M	11.31 %

Insights

- Retailer provide the biggest share of gross sales in FY **2021** contributing **73.22%**.
- Direct sales contributed **15.48 %** while distributor sales made up **11.31%** of the total gross sales.



OUTPUT

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

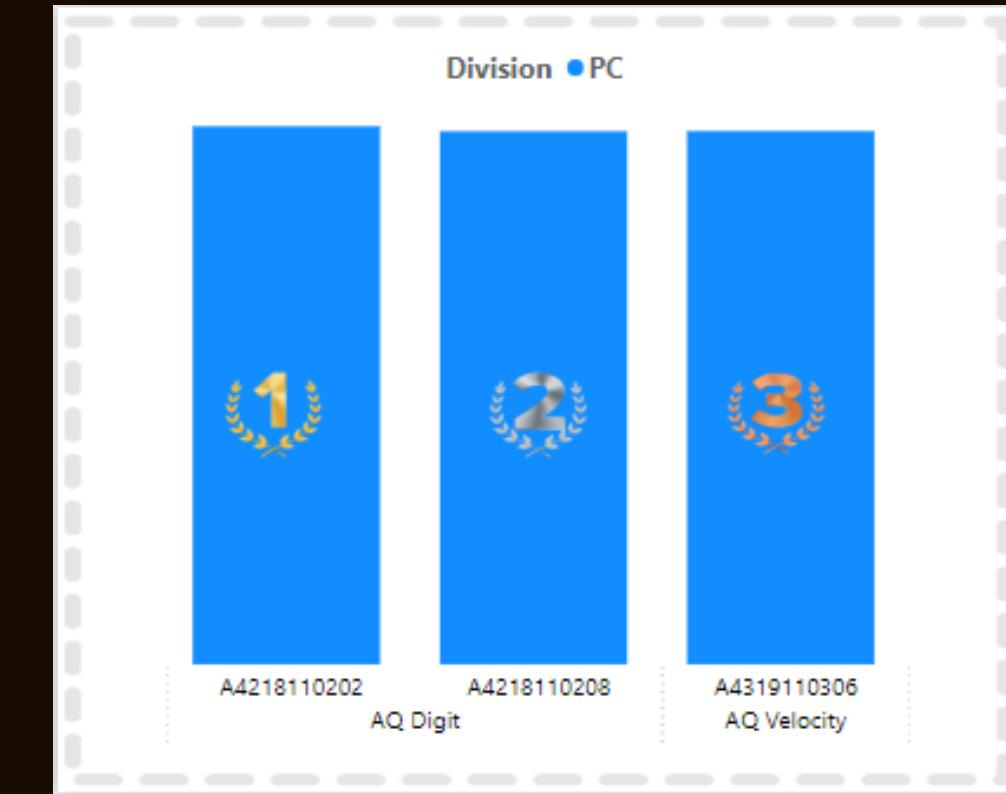
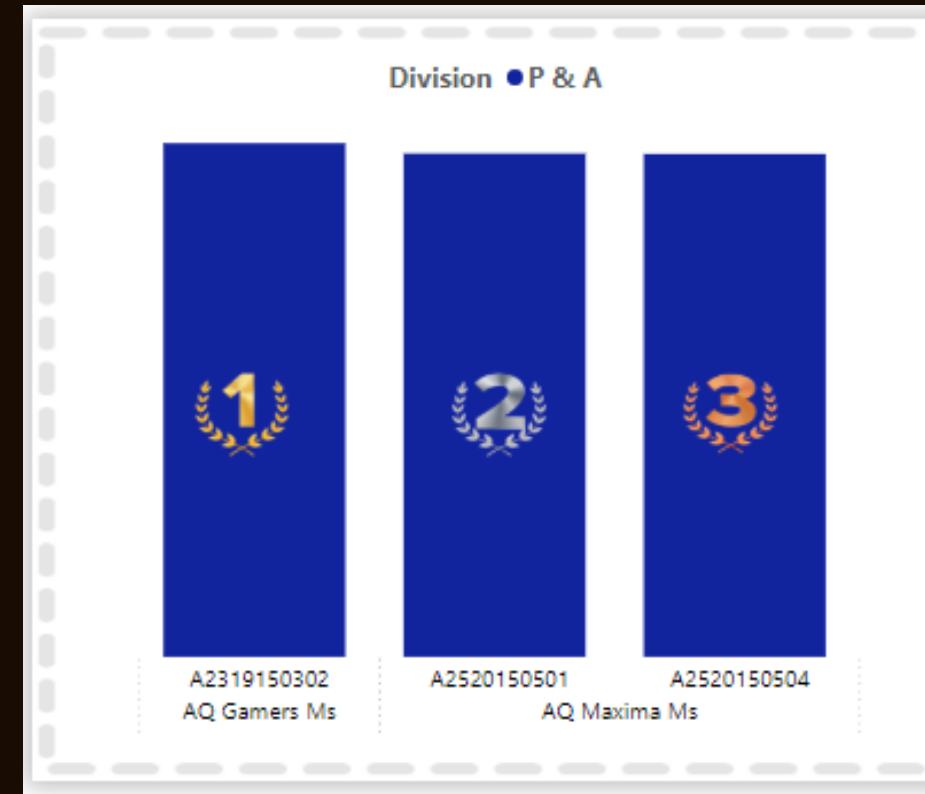
total_sold_quantity

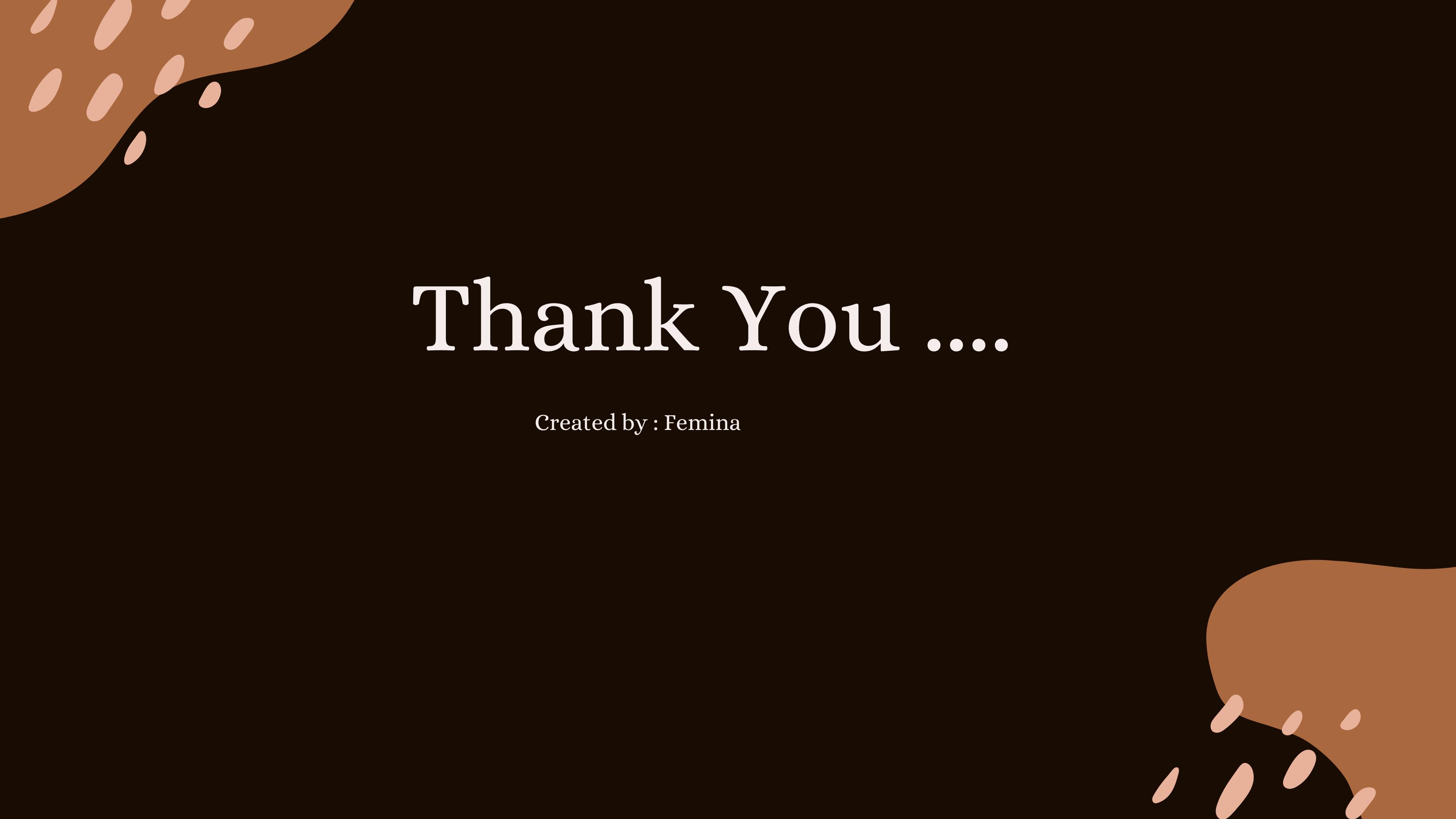
rank_order

	division	product_code	product	Total_sold_quanity	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** products with the highest sales quantities in each division for **FY 2021** are Pen Drives, Mouse, and Personal Laptops.
- The **N&S** division had the highest sales at **701.37k** units, while the **PC** division had the lowest at **17.28k** units.





Thank You

Created by : Femina