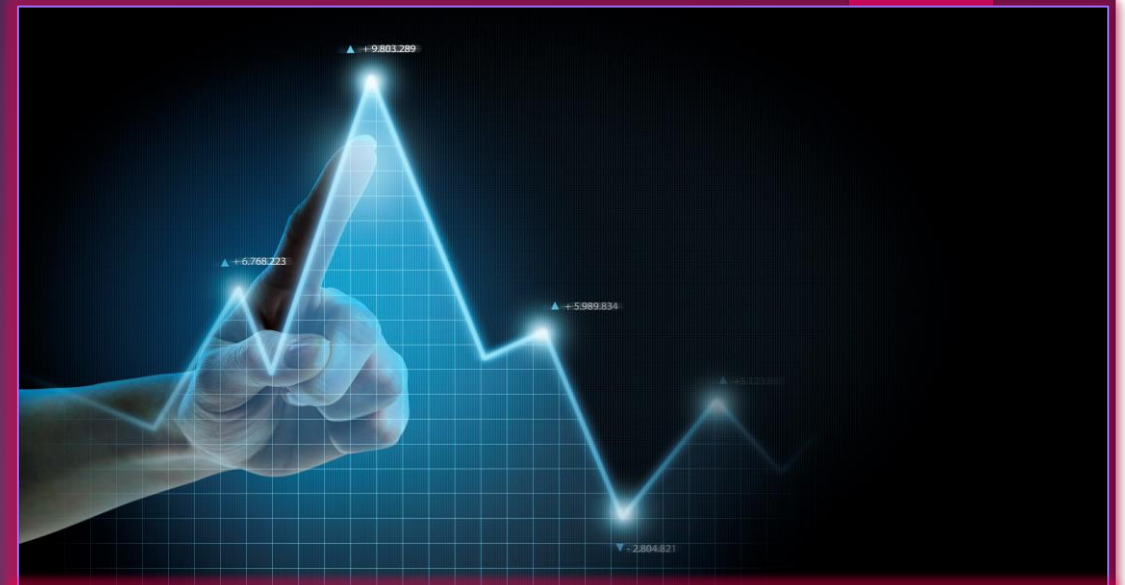



AtliQ HARDWARE:

CONSUMER GOODS AD-HOC INSIGHTS

Presented by: Roopam Sarkar





#OPENTOWORK

DATA ANALYST 2.0

AI Enabled Data Analyst
Loading...


Roopam Sarkar ✓

Data analyst || MBA || My SQL || Power BI || Python || I Present Insights to Businesses from Big Data.

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[My Portfolio Website](#)

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KIIT - Kalinga Institute of Industrial Technology

BACKGROUND

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.

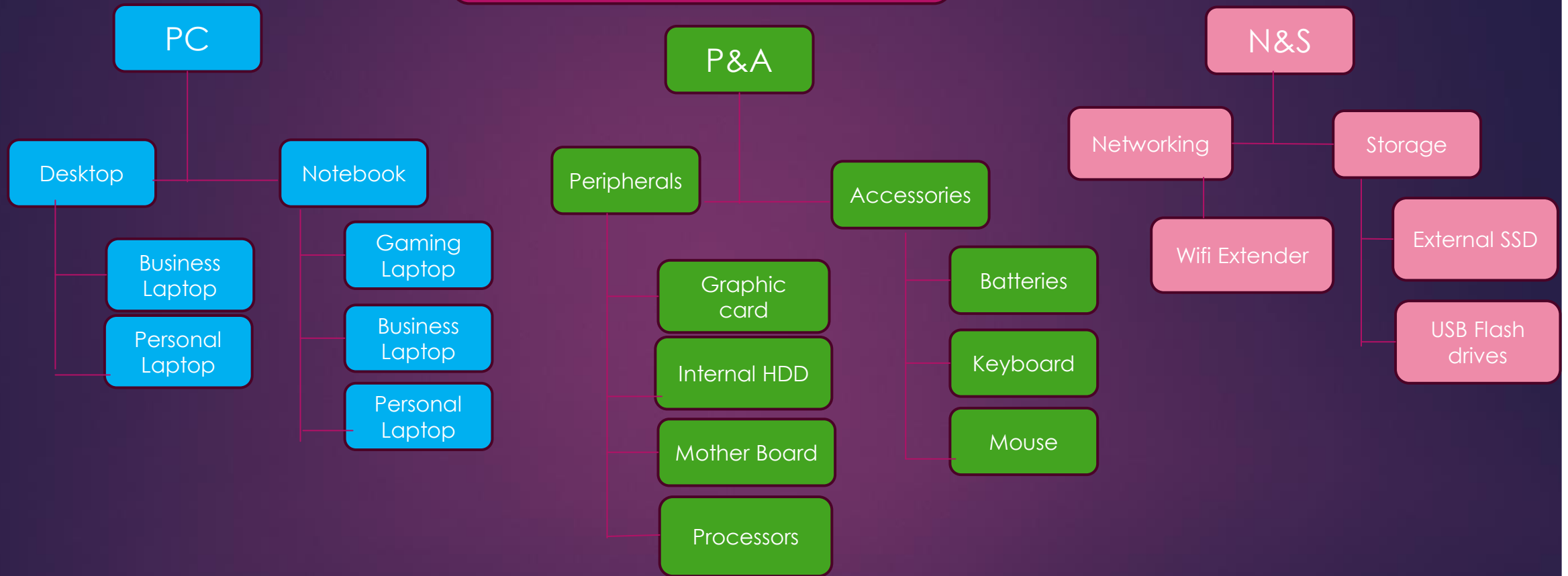
Problem:

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 top level management.

Atliq's Product line



REQUEST: 1

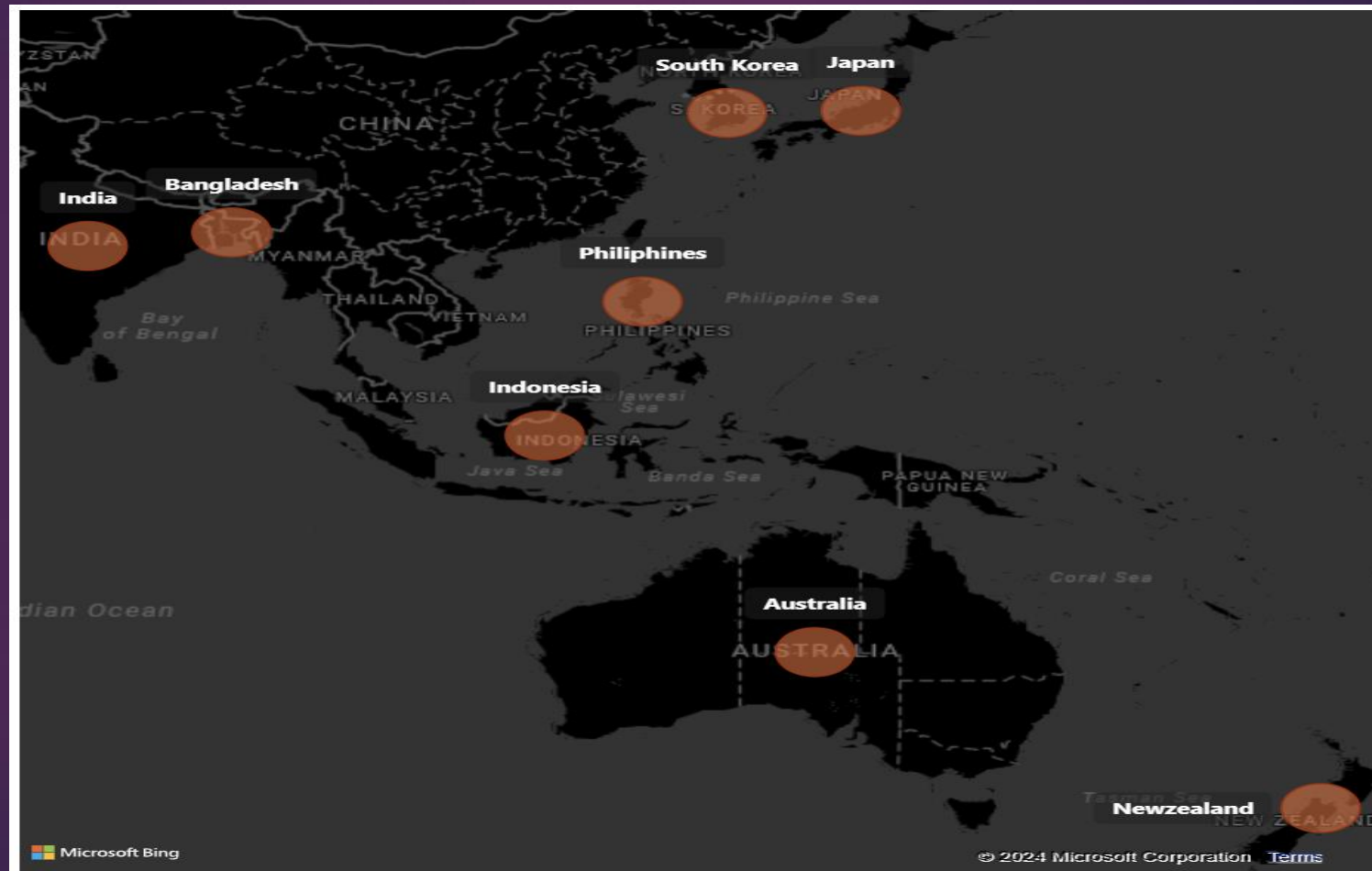
Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC region.

OUTPUT

	market
▶	India
	Indonesia
	Japan
	Philippines
	South Korea
	Australia
	Newzealand
	Bangladesh

INSIGHTS

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



REQUEST:2

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

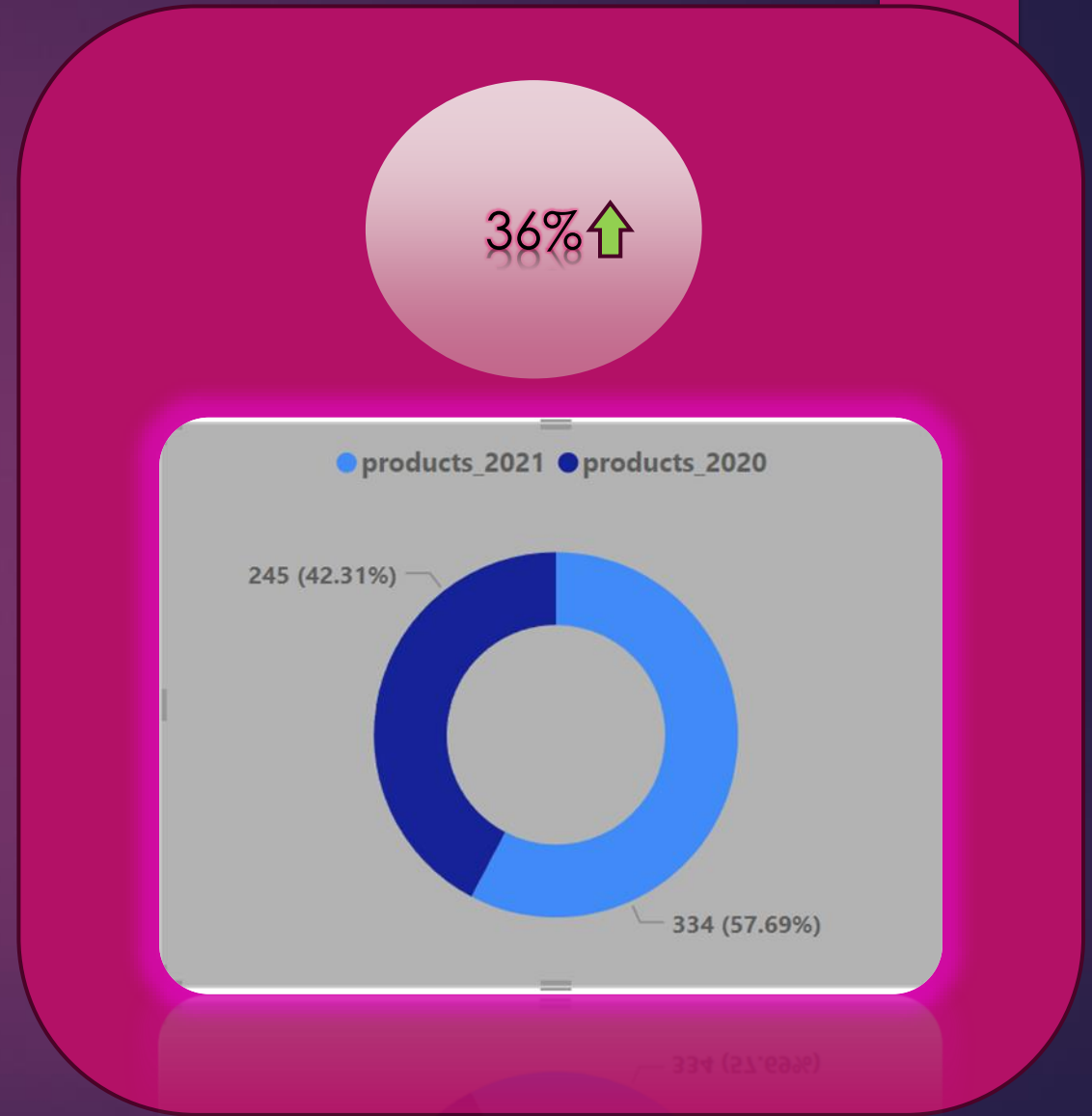
unique_products_2020
unique_products_2021
percentage_chg

OUTPUT

	2020_unique_products	2021_unique_products	pct_chg
▶	245	334	36.33

INSIGHTS

It's a good sign that we are continuously innovating and introducing new products to the market. In FY 2020, we had a total of 245 products, but in FY 2021, our count increased by 36% to 334 products



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

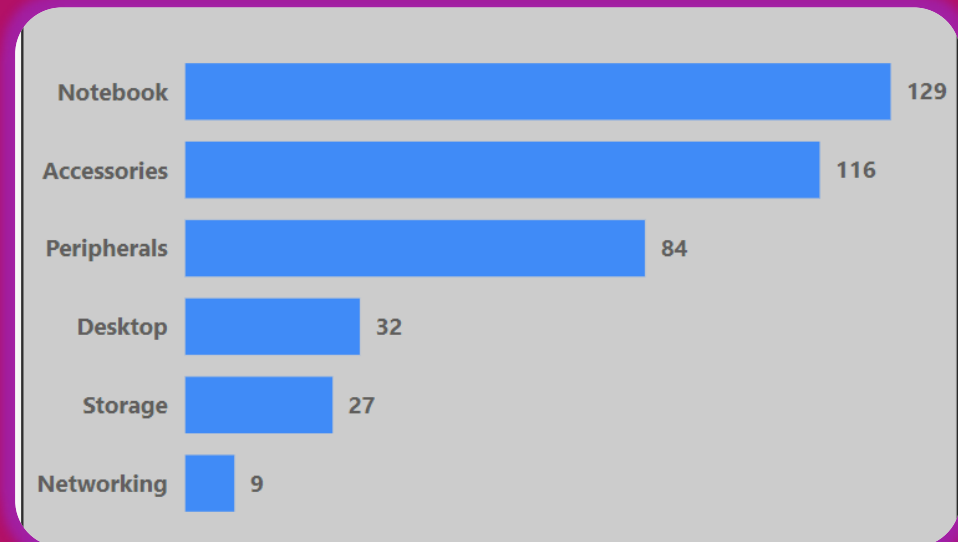
OUTPUT

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

INSIGHTS

We provide a wide range of products under the segments **Notebook, Peripherals, and Accessories**. However we still need to diversify our production in the **Desktop, Networking, and Storage segments**, where there are just an average of **only 23 products per segment**.

VISUALIZATION



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

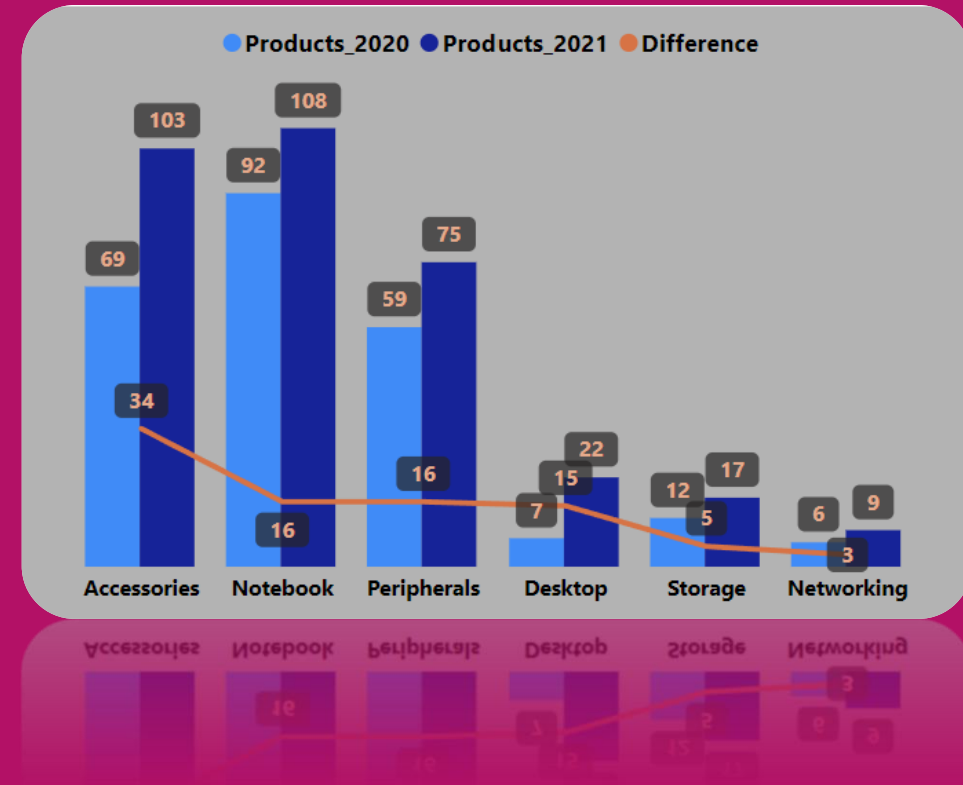
OUTPUT

	segment	product_count_2020	product_count_2021	diff
▶	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

- In 2021, we were mainly focusing on diversifying our accessories segment. We introduced 34 new products to the market in accessories.
- Production and Demand both increased for the Segments of Accessories and Notebook.

VISUALIZATION



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

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

INSIGHTS

- **Personal Desktop:** AQ Home Allin1 Gen2 (Variant: Plus3) has the highest manufacturing cost.
- **Mouse:** AQ Master wired x1 Ms (Variant: Standard1) has the lowest manufacturing cost

VISUALIZATION



\$263.42



\$0.86

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

INSIGHTS

- The **Maximum average** pre-invoice discount was given to **Flipkart**.
- The **least average** pre-invoice discount was given to **Amazon**

OUTPUT

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

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	fiscal_year	gross_price_mil
September	2020	17.04
October	2020	19.48
November	2020	28.51
December	2020	18.32
January	2020	18.01
February	2020	15.17
March	2020	1.42
April	2020	1.49
May	2020	2.97
June	2020	6.45
July	2020	9.69
August	2020	10.60
September	2021	37.75
October	2021	40.44
November	2021	62.30
December	2021	39.31
January	2021	37.70
February	2021	30.85
March	2021	36.97
April	2021	22.15
May	2021	37.04
June	2021	29.89
July	2021	58.88
August	2021	40.78
September	2021	55.12
October	2021	38.81
November	2021	30.82

INSIGHTS

- For Atliq Exclusive, **November 2021** marked the **highest sales**, and **March 2020** marked the **lowest gross sales**. It's very evident that the lower sales between March and August are because of **COVID-19**.
- However, it's a very good sign that the **sales increased quickly after Insights August** and reached the highest level since the last two years in November.

VISUALIZATION



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`

OUTPUT

	Quaters	<code>total_sold_quantity</code>
▶	Q1	7.01 M
	Q2	6.65 M
	Q4	5.04 M
	Q3	2.08 M

INSIGHTS

- The sold **quantity decreased to 2.1 million** in **quarter 3 of FY 2020**, which was actually March, April, and May when **COVID-19** was at its peak.
- This early recovery during **quarter 4** is probably because of the **increased need for hardware** like **desktops and notebooks** as majority of the students began or continued to do their coursework online during this time, and there was **a huge demand** for computer accessories during this period.

VISUALIZATION



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.

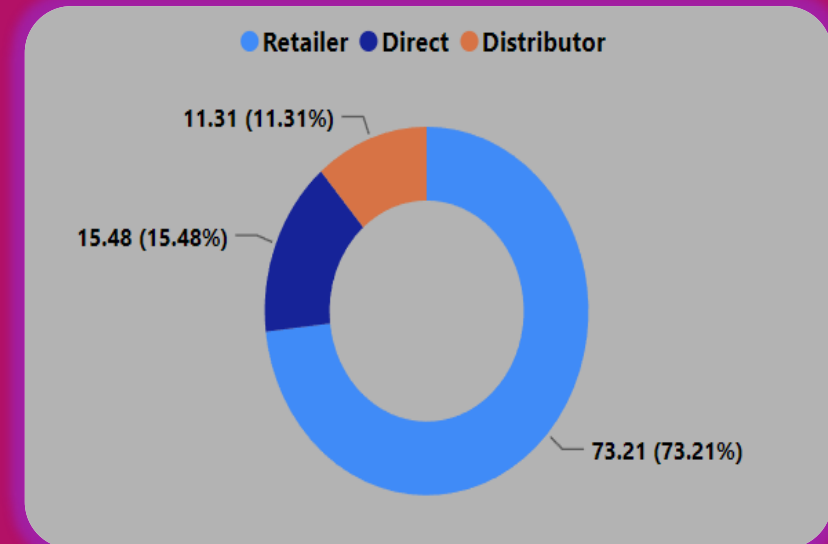
OUTPUT

	channel	gross_sales_mln	percentage
▶	Retailer	3708.46	73.21
	Direct	784.14	15.48
	Distributor	572.86	11.31

INSIGHTS

- **Maximum Gross sales** are coming from **“Retailer”** which is **73.21%** of the Total Sales followed by the **“Direct” Channel (15.48%)**

VISUALIZATION



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	0.70 M	1
	N & S	A6818160202	AQ Pen Drive DRC	0.69 M	2
	N & S	A6819160203	AQ Pen Drive DRC	0.68 M	3
	P & A	A2319150302	AQ Gamers Ms	0.42 M	1
	P & A	A2520150501	AQ Maxima Ms	0.41 M	2
	P & A	A2520150504	AQ Maxima Ms	0.41 M	3
	PC	A4218110202	AQ Digit	0.00 M	1
	PC	A4319110306	AQ Velocity	0.00 M	2
	PC	A4218110208	AQ Digit	0.00 M	3
	PC	A4518110508	AQ Digit	0.00 M	3
	PC	A4319110306	AQ Velocity	0.00 M	3

INSIGHTS

- The **top 3 selling products in N&S** were pen drives, which were around **0.7 Million** in quantity.
- The **top 3 selling products in P&A** were mouse, which were around **0.42 Million** in quantity.

OUTPUT

	division	product_code	product	total_sold_quantity	rank_order
▶	N & S	A6720160103	AQ Pen Drive 2 IN 1	0.70 M	1
	N & S	A6818160202	AQ Pen Drive DRC	0.69 M	2
	N & S	A6819160203	AQ Pen Drive DRC	0.68 M	3
	P & A	A2319150302	AQ Gamers Ms	0.42 M	1
	P & A	A2520150501	AQ Maxima Ms	0.41 M	2
	P & A	A2520150504	AQ Maxima Ms	0.41 M	3
	PC	A4218110202	AQ Digit	0.00 M	1
	PC	A4319110306	AQ Velocity	0.00 M	2
	PC	A4218110208	AQ Digit	0.00 M	3
	PC	A4518110508	AQ Digit	0.00 M	3
	PC	A4318110308	AQ Velocity	0.00 M	3