

AtliQ Hardware

Ad Hoc Analysis

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Context

Company

AtliQ Hardware, a leading electronics accessories company, embarked on an ad hoc analysis project to address a critical need for actionable insights to support strategic decision-making.

Problem Statement

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.

Objective

This project aimed to address critical business inquiries by effectively extracting, querying, and analyzing relevant data, ultimately enabling informed decision-making based on the derived insights.

Approach

A systematic approach was employed, involving data import, cleaning, query development, and visualization, with a focus on delivering concise and impactful recommendations.

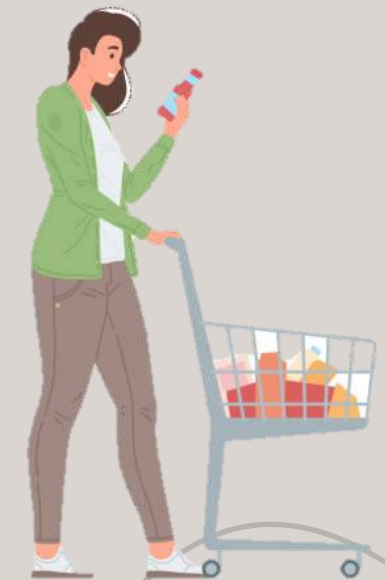


Understanding AtliQ Business

AtliQ's Business Model

Customers

Consumer



Platforms

Brick & Mortar

cromā



E-Commerce

amazon



Channels

Retailer

cromā amazon

Direct

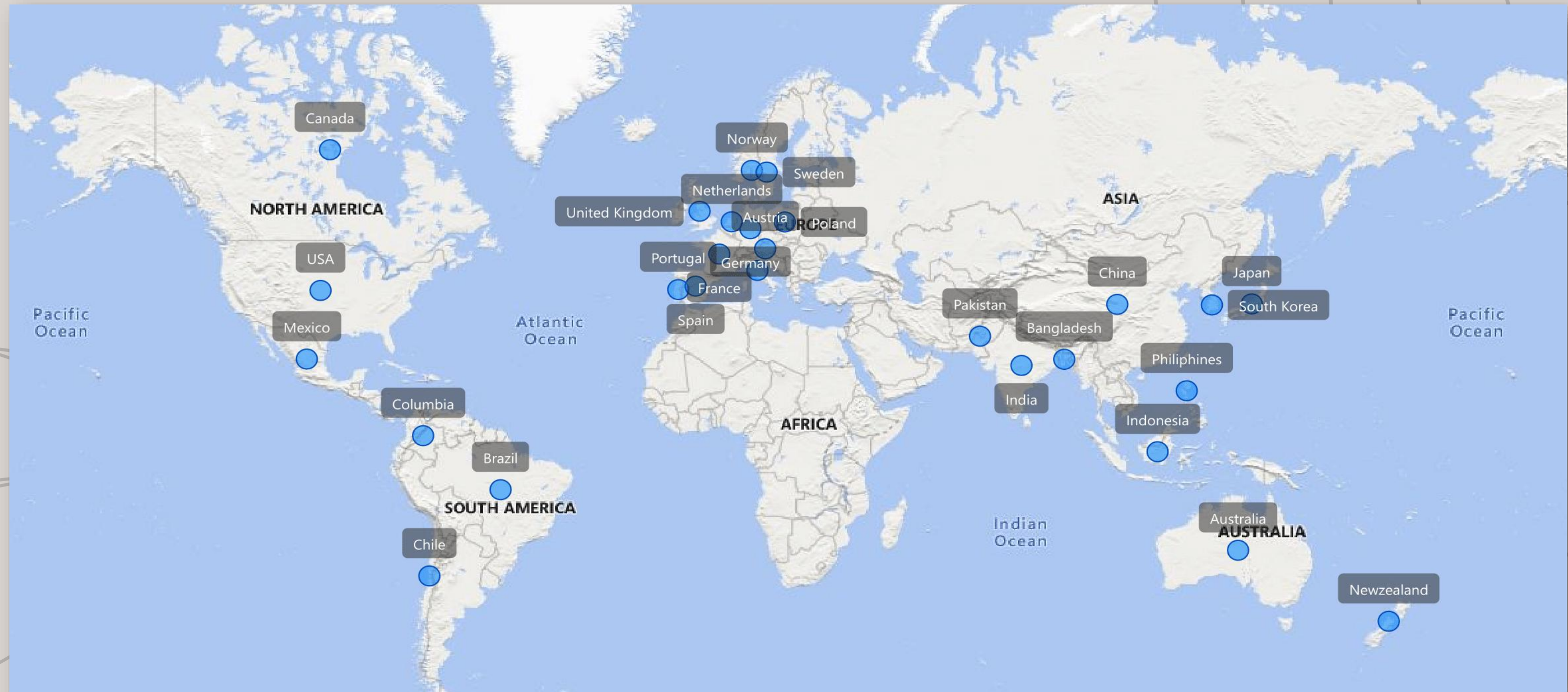

E-Store


Exclusive

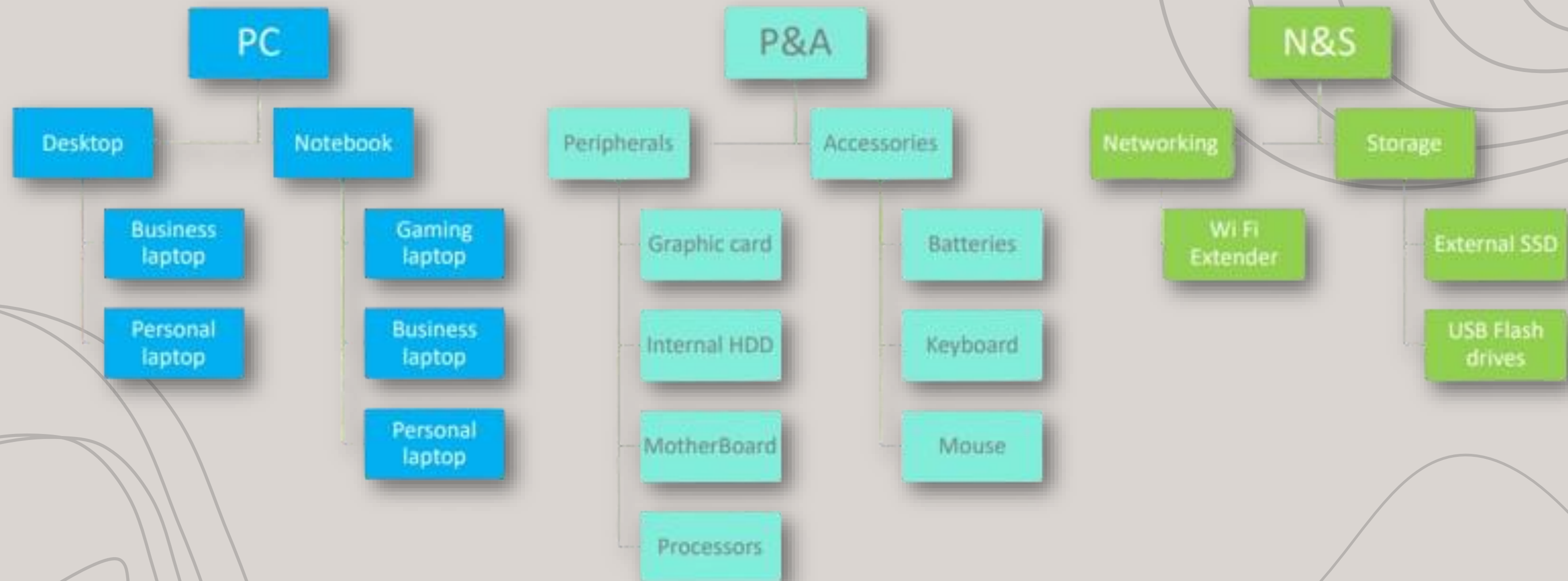
Distributor

NEPTUNE

AtliQ's Markets



AtliQ's Products

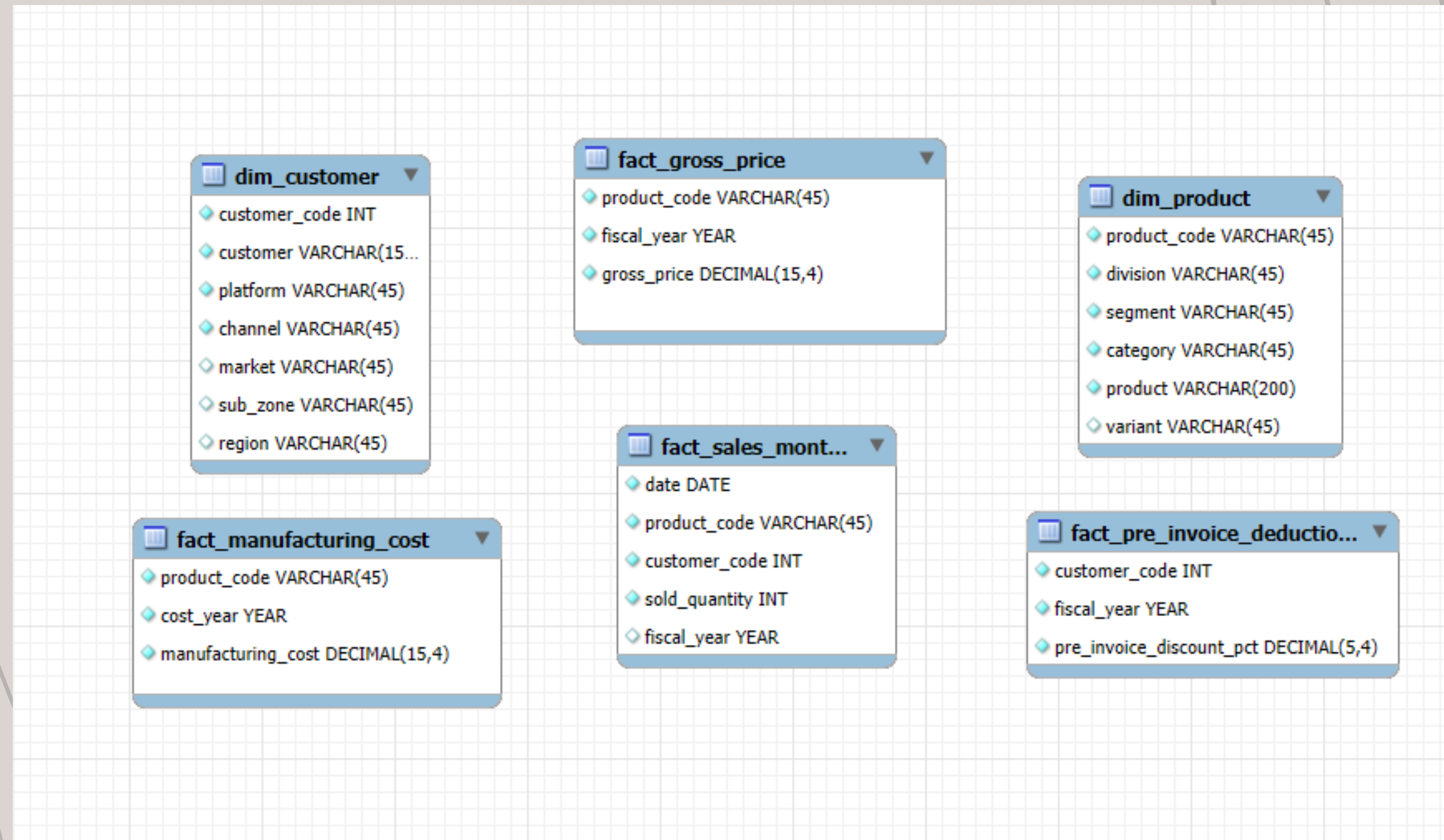




Getting familiar with the dataset

Data Model

Fiscal year for Atliq Hardware starts from 1st September and ends on 31st August each year. Sales data is available for fiscal year 2020-2021.



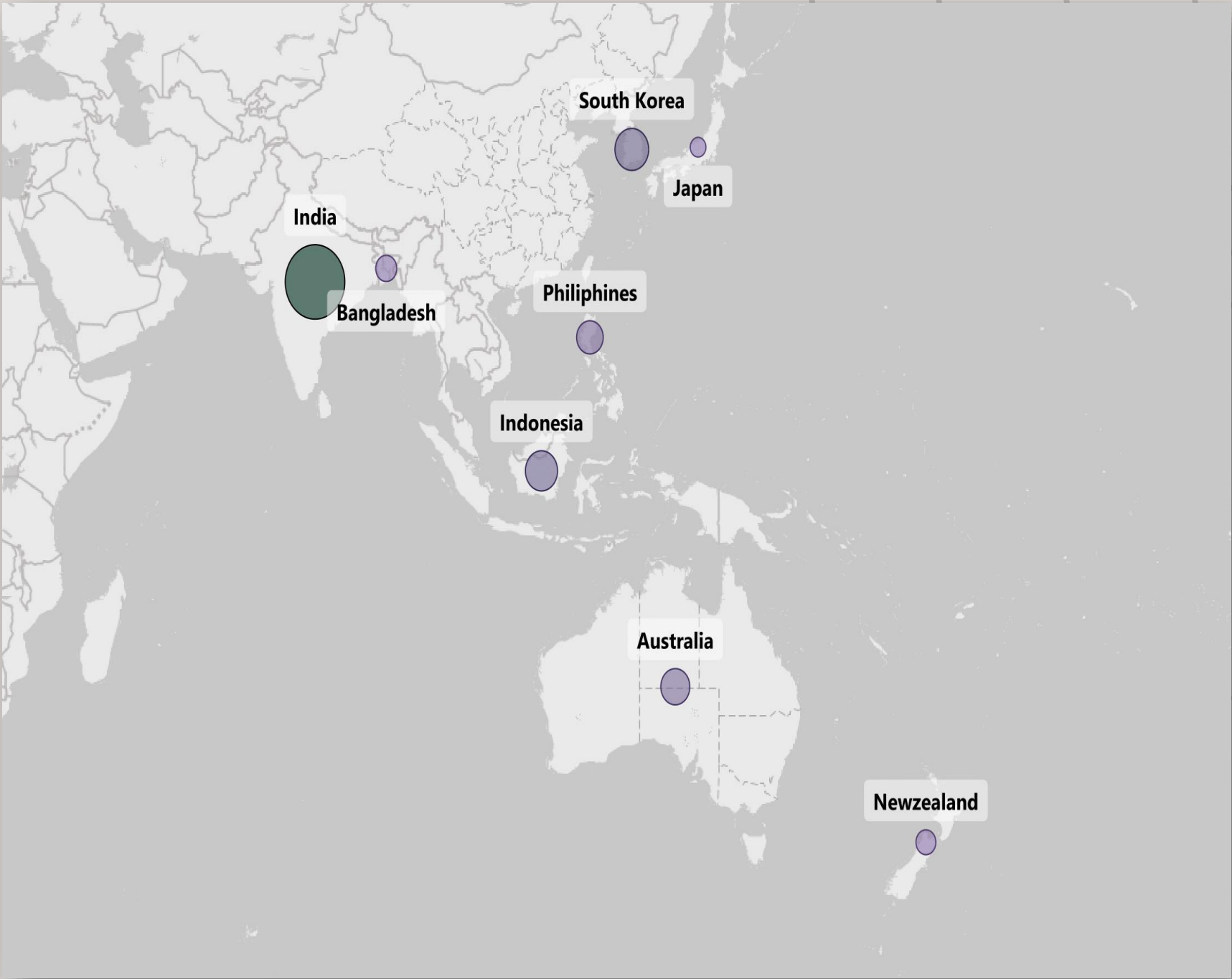


Requests, Results & Insights

Request 1:

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

market
Australia
Bangladesh
India
Indonesia
Japan
Newzealand
Philiphines
South Korea



Request 2:

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

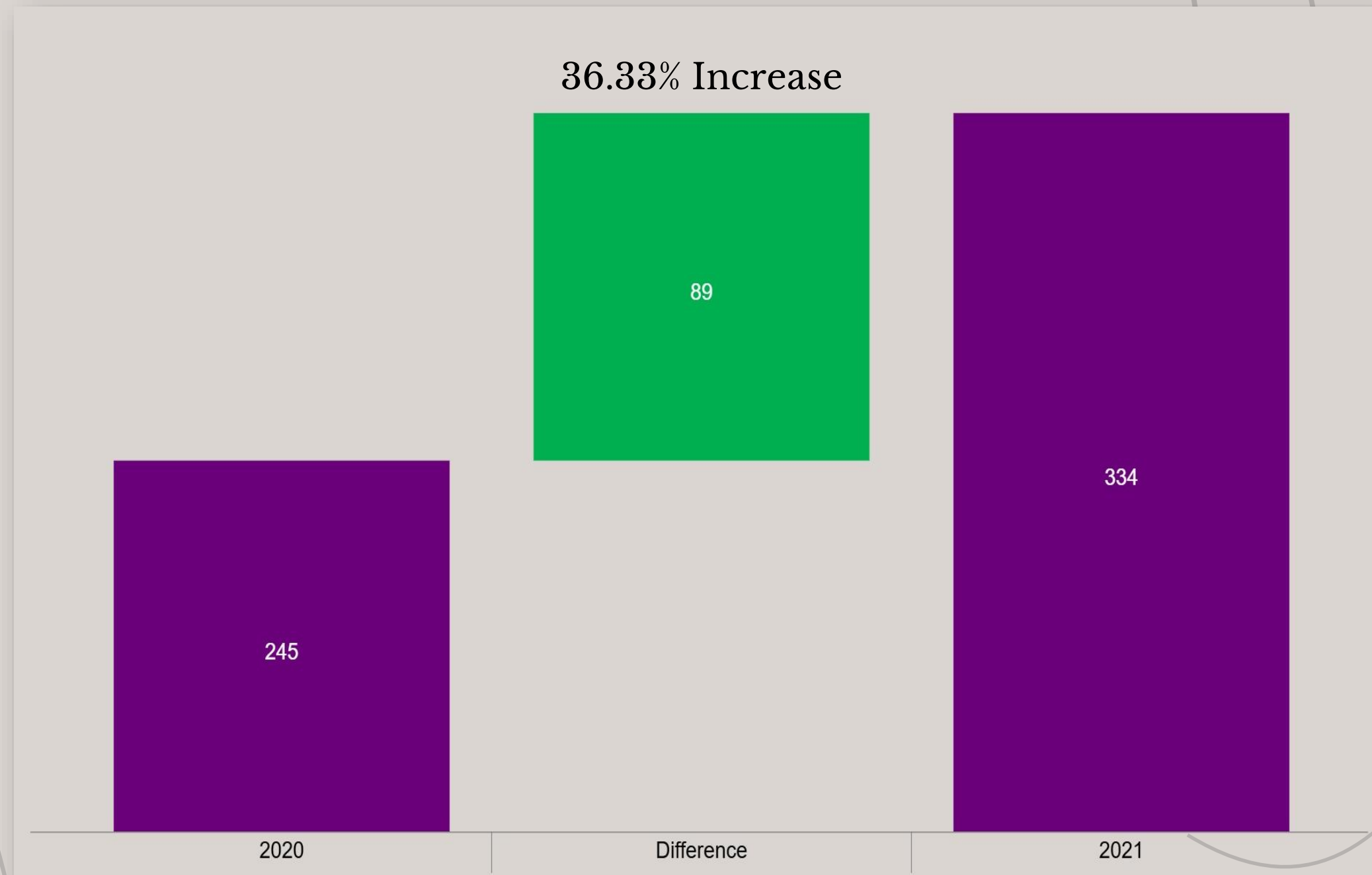
The final output contains these fields,

- unique_products_2020
- unique_products_2021
- percentage_chg

unique_products_2020	unique_products_2021	percentage_chg
245	334	36.33

Insights

The number of different products available in 2021 was 36.33% higher than the number of different products available in 2020.

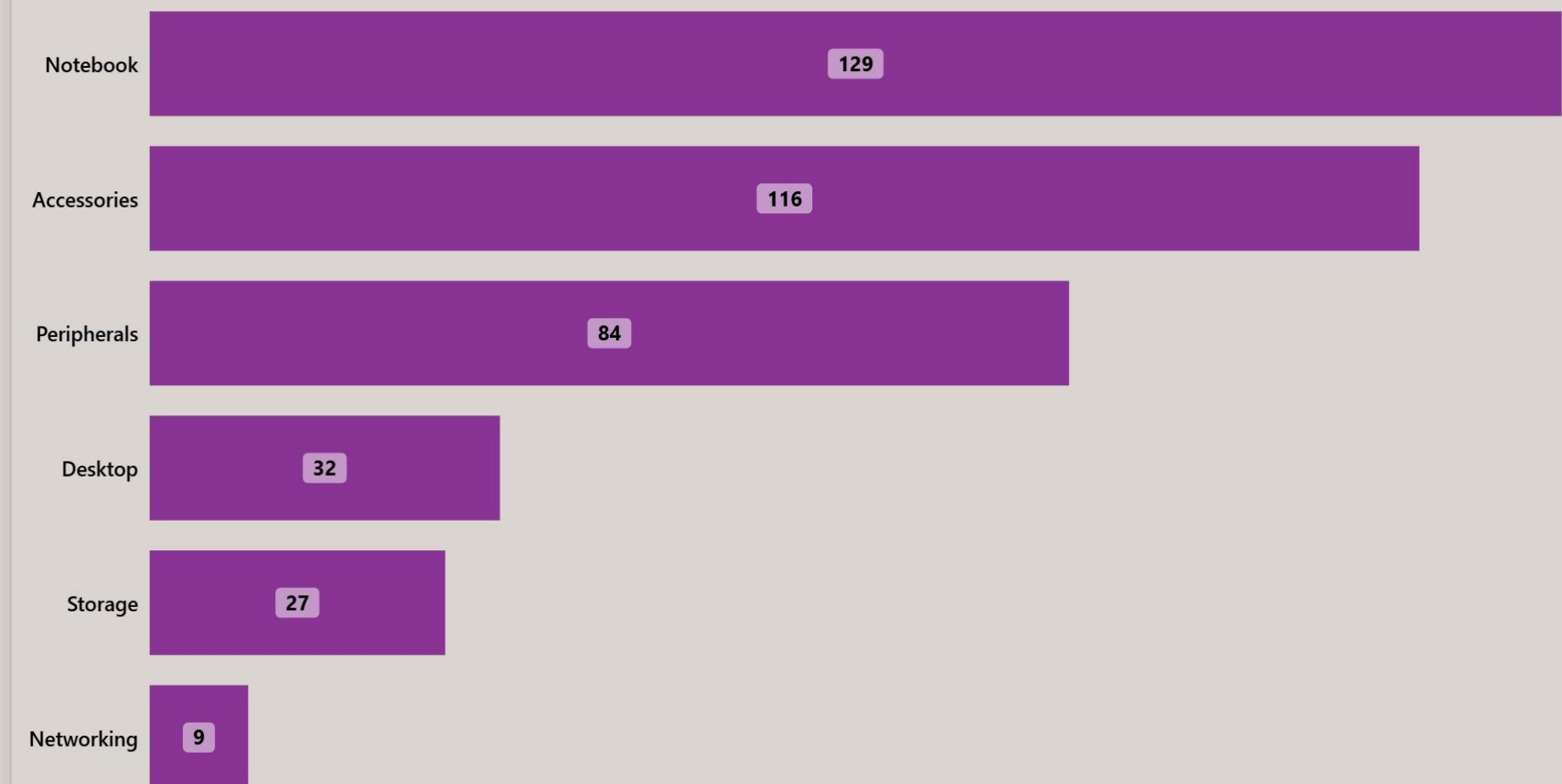


Request 3:

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

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



Request 4:

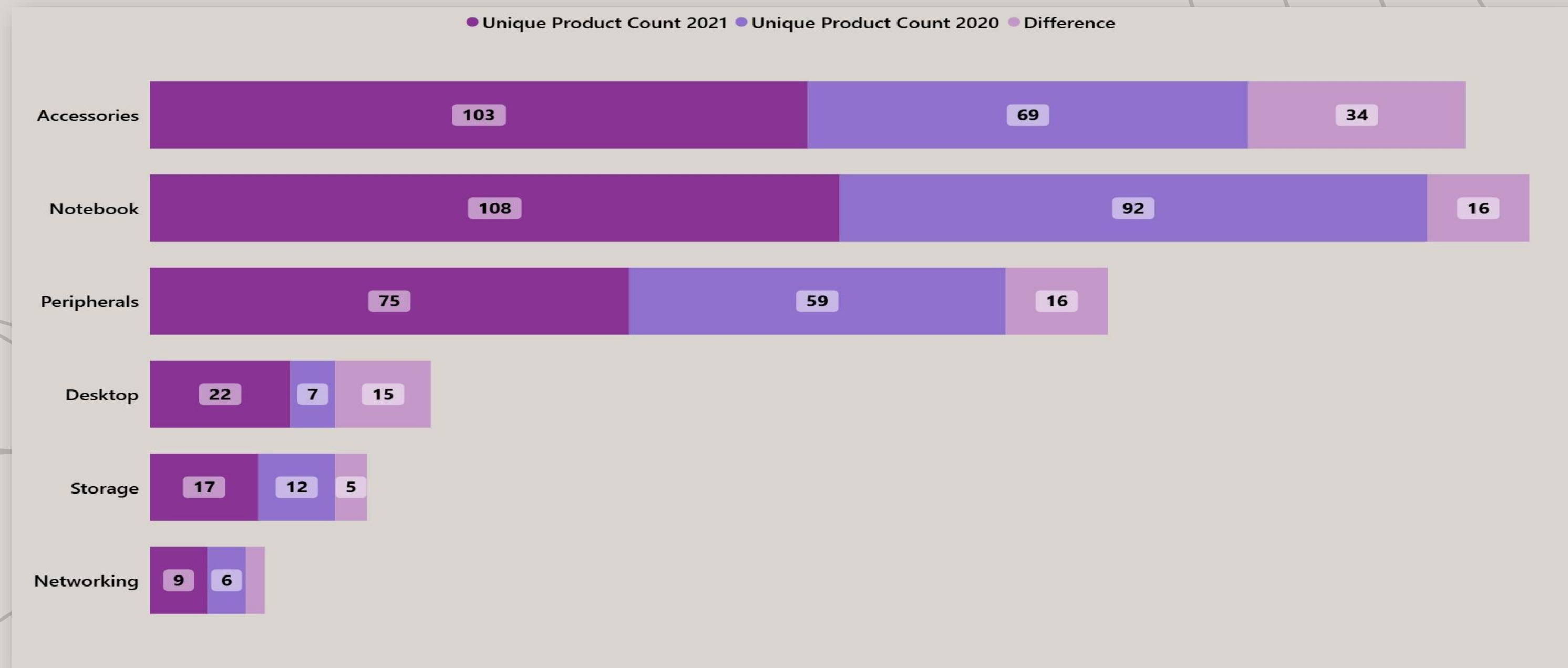
Which segment had the most increase in unique products in 2021 vs 2020? The final output contains these fields,

- segment
- product_count_2020
- product_count_2021
- difference

segment	unique_product_2020	unique_product_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

There is a general trend of an increase in the number of unique products across all categories from 2020 to 2021.



Request 5:

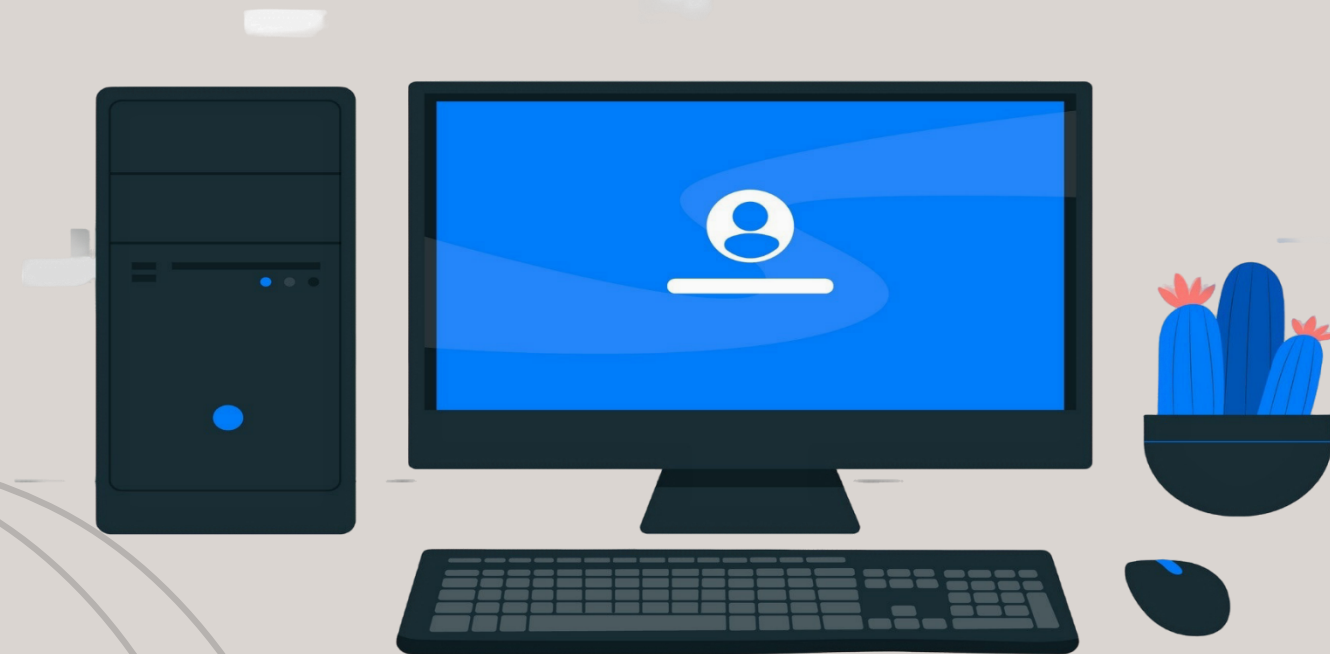
Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields,

- product_code
- product
- manufacturing_cost

product_code	product	variant	manufacturing_cost
A6120110206	AQ HOME Allin1 Gen 2	Plus 3	240.5364
A2118150101	AQ Master wired x1 Ms	Standard 1	0.8920

Insights

The product which has highest and lowest manufacturing cost are AQ Home Allin1 Gen 2 with Rs. 240.54 and AQ Master wired x1 Ms with Rs. 0.89 manufacturing cost.



AQ HOME Allin1 Gen 2
Variant: Plus 3



AQ Master wired x1 Ms
Variant: Standard 1

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.

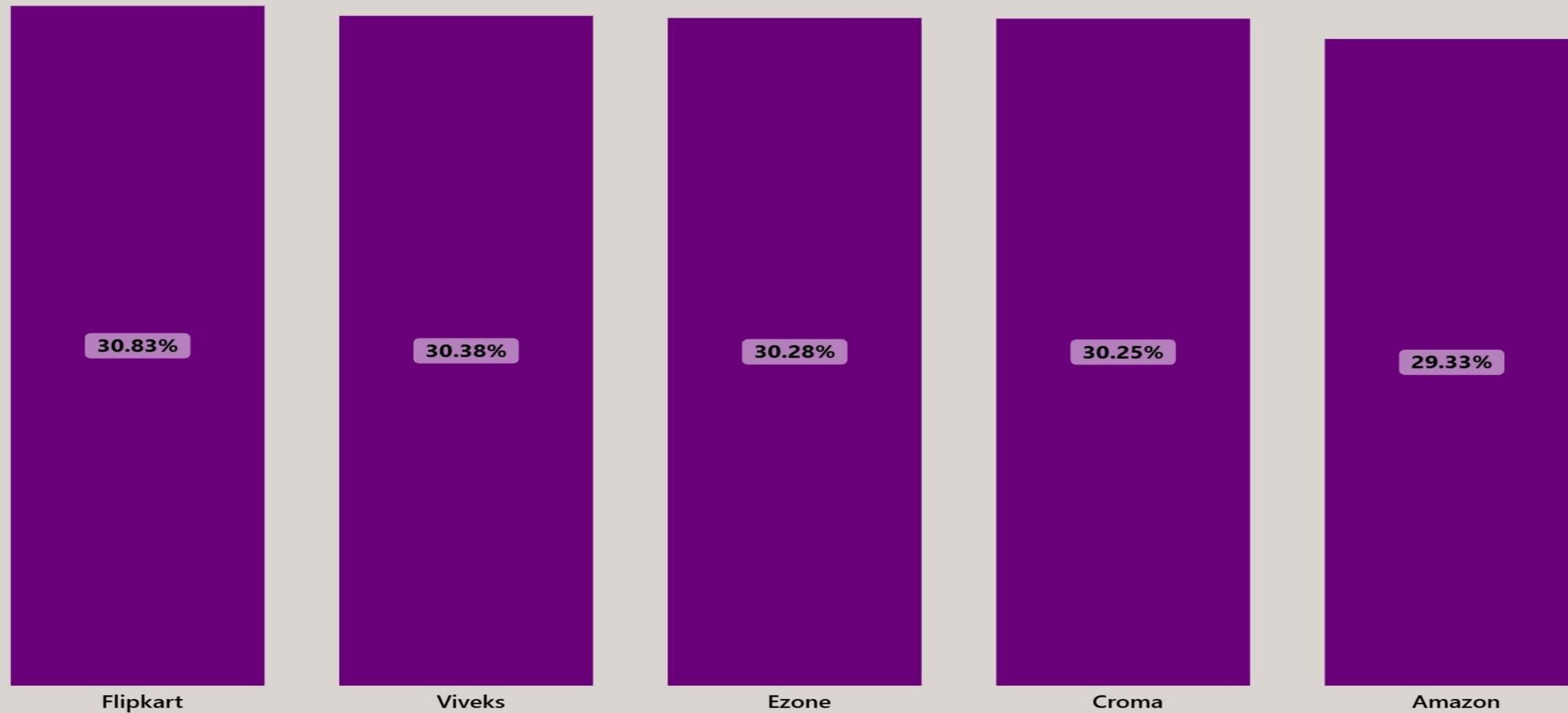
The final output contains these fields,

- customer_code
- customer
- average_discount_percentage

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

All five customers receive a relatively high average pre-invoice discount, ranging from 29.33% to 30.83%.



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

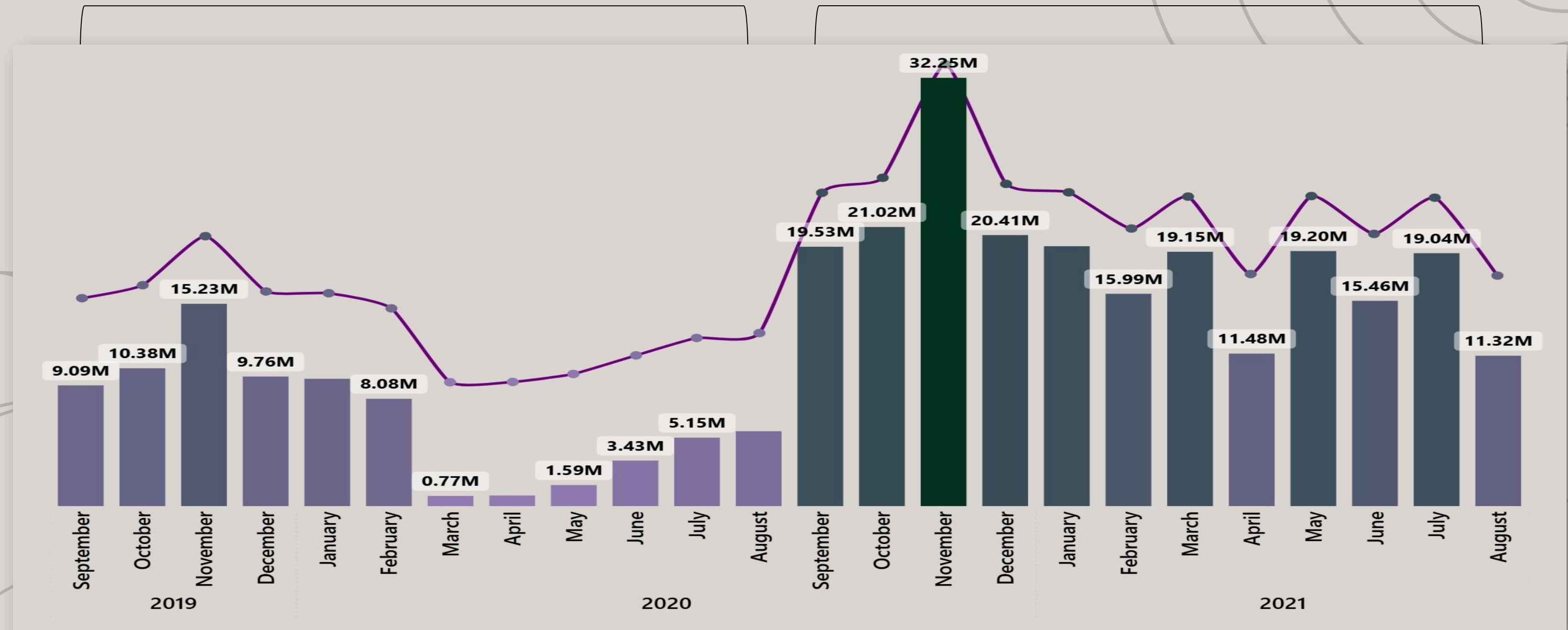
month	year	gross_sales_amount_in_millions
9	2019	4.50M
10	2019	5.14M
11	2019	7.52M
12	2019	4.83M
1	2020	4.74M
2	2020	4.00M
3	2020	378.77K
4	2020	395.04K
5	2020	783.81K
6	2020	1.70M
7	2020	2.55M
8	2020	2.79M
9	2020	12.35M
10	2020	13.22M
11	2020	20.46M
12	2020	12.94M
1	2021	12.40M
2	2021	10.13M
3	2021	12.14M
4	2021	7.31M
5	2021	12.15M
6	2021	9.82M
7	2021	12.09M
8	2021	7.18M

Insights

- The spike in September 2020 could be because of seasonal factors such as back-to-school shopping or holiday sales.
- The decline in early 2020 might be linked to the COVID-19 pandemic and its impact on economic activity.
- The company might have implemented new strategies in 2020 that led to increased sales.

FY 2020

FY 2021

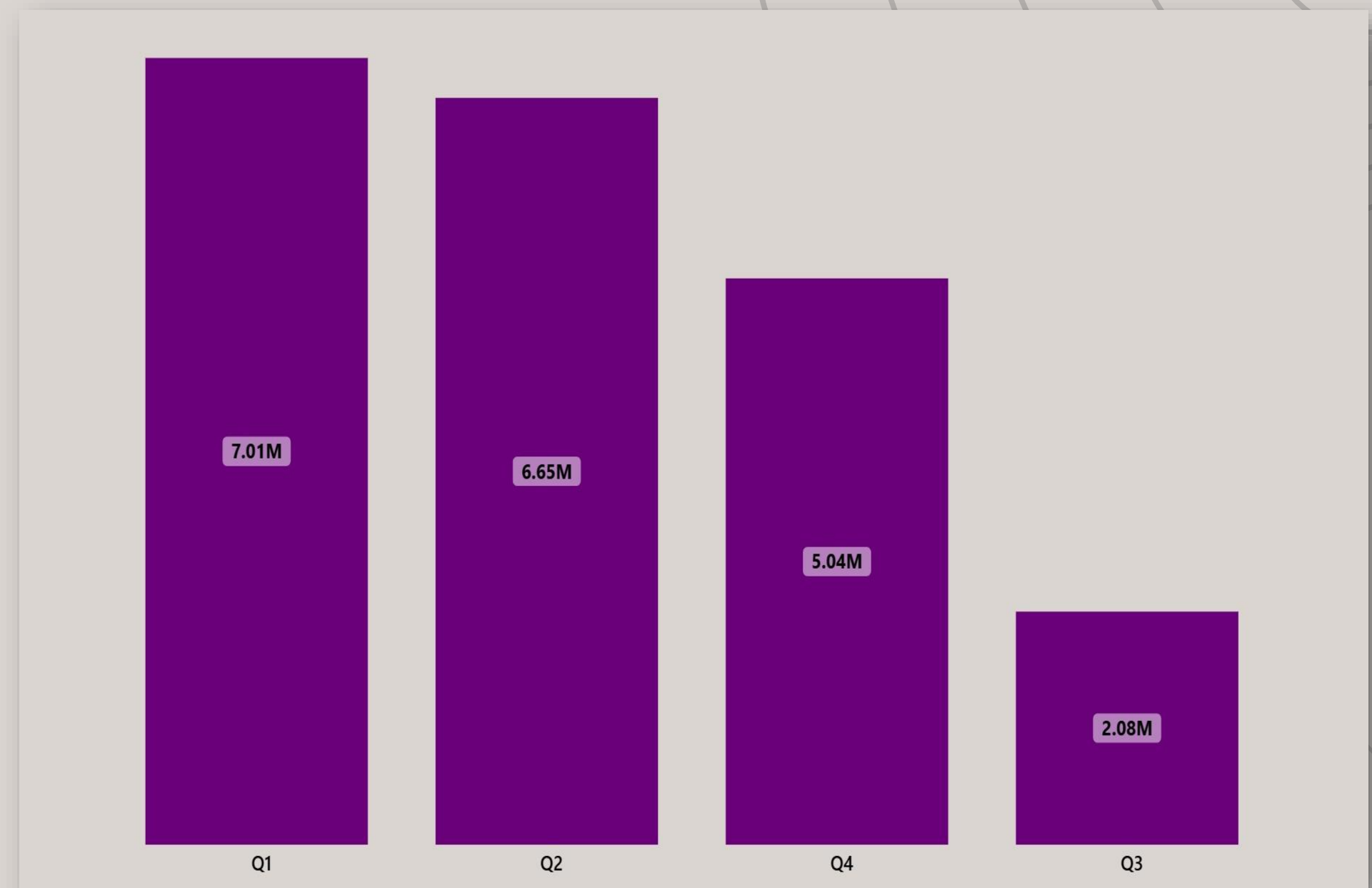


Request 8:

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_quantity_sold
Q1	7005619
Q2	6649642
Q4	5042541
Q3	2075087

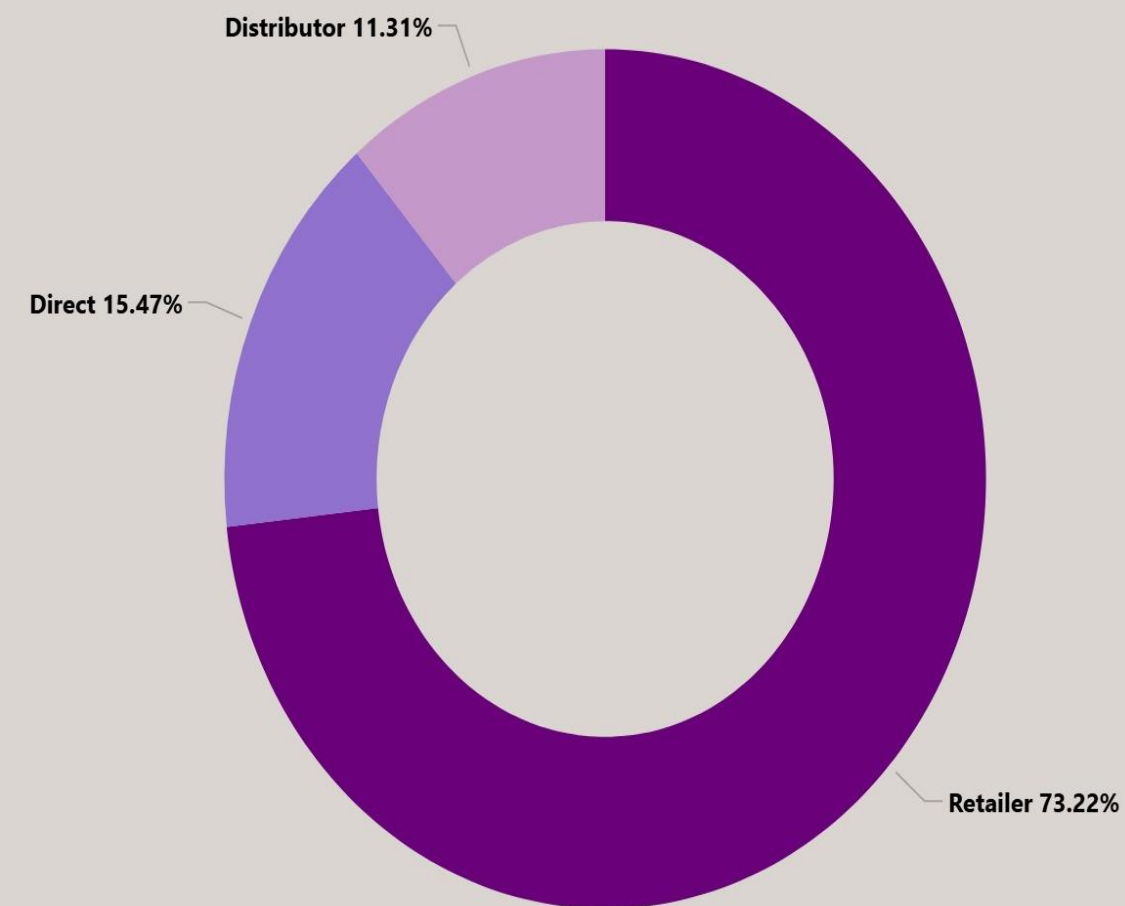


Request 9:

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_in_mln	percentage
Retailer	1,219.08 M	73.23%
Direct	257.53 M	15.47%
Distributor	188.03 M	11.30%



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_quantity_sold	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

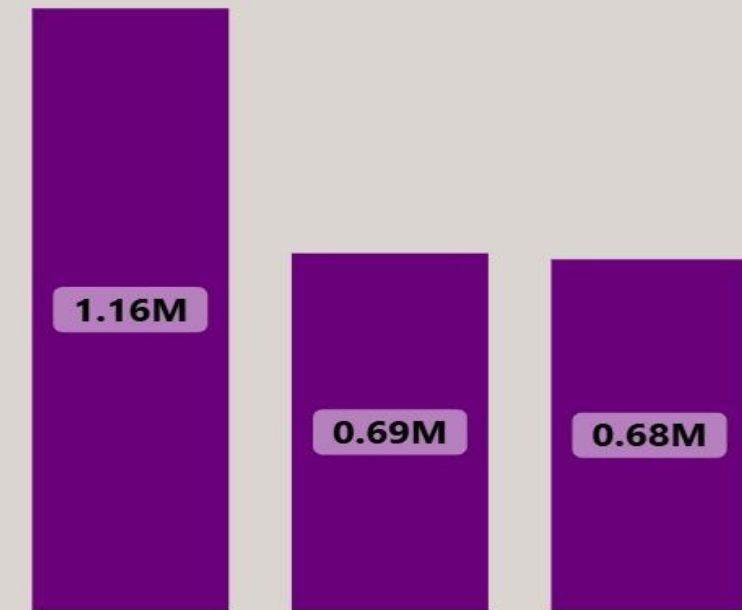
Insights



AQ Digit
A4218110202 AQ Digit
A4218110208 AQ Velocity
A4319110306
PC Division



AQ Gamers
Ms
A2319150302 AQ Maxima
Ms
A2520150501 AQ Maxima
Ms
A2520150504
P & A Division



AQ Pen Drive
2 IN 1
A6720160103 AQ Pen Drive
DRC
A6818160202 AQ Pen Drive
DRC
A6819160203
N & S Division



Feedback



**Thank
You**