



Atliq Hardwares



Consumer Goods Ad-Hoc Insights

– By Harsha Kumavat



#codebasicsresumeprojectchallenge

Agenda

- Company & Problem Statement
- Database Schema
- Ad-Hoc request, queried results, visualizations & insights.



Company & Problem statement

- Leading computer hardware producers in India and well expanded in other countries.

Problem Statement

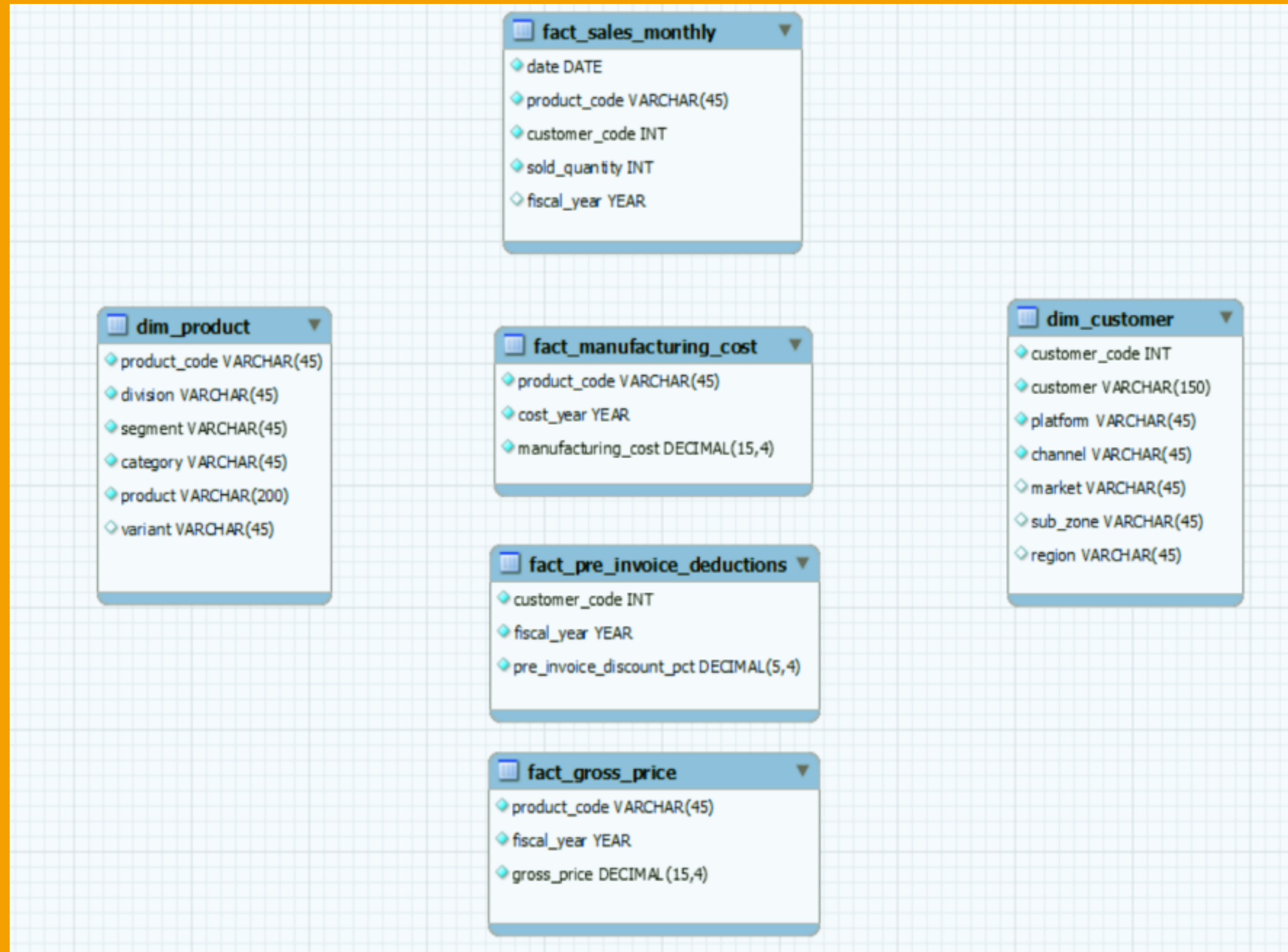
There are not enough insights to make quick and smart data-informed decisions.

- Expand data analytics team by adding several junior data analysts.
- Decided to conduct a SQL challenge to hire junior data analysts.

Task

- There are 10 ad-hoc requests for which the business needs insights.
- Task is to write SQL queries to answer these requests.
- Create presentation to show insights to Top-Level Management.

Database Schema

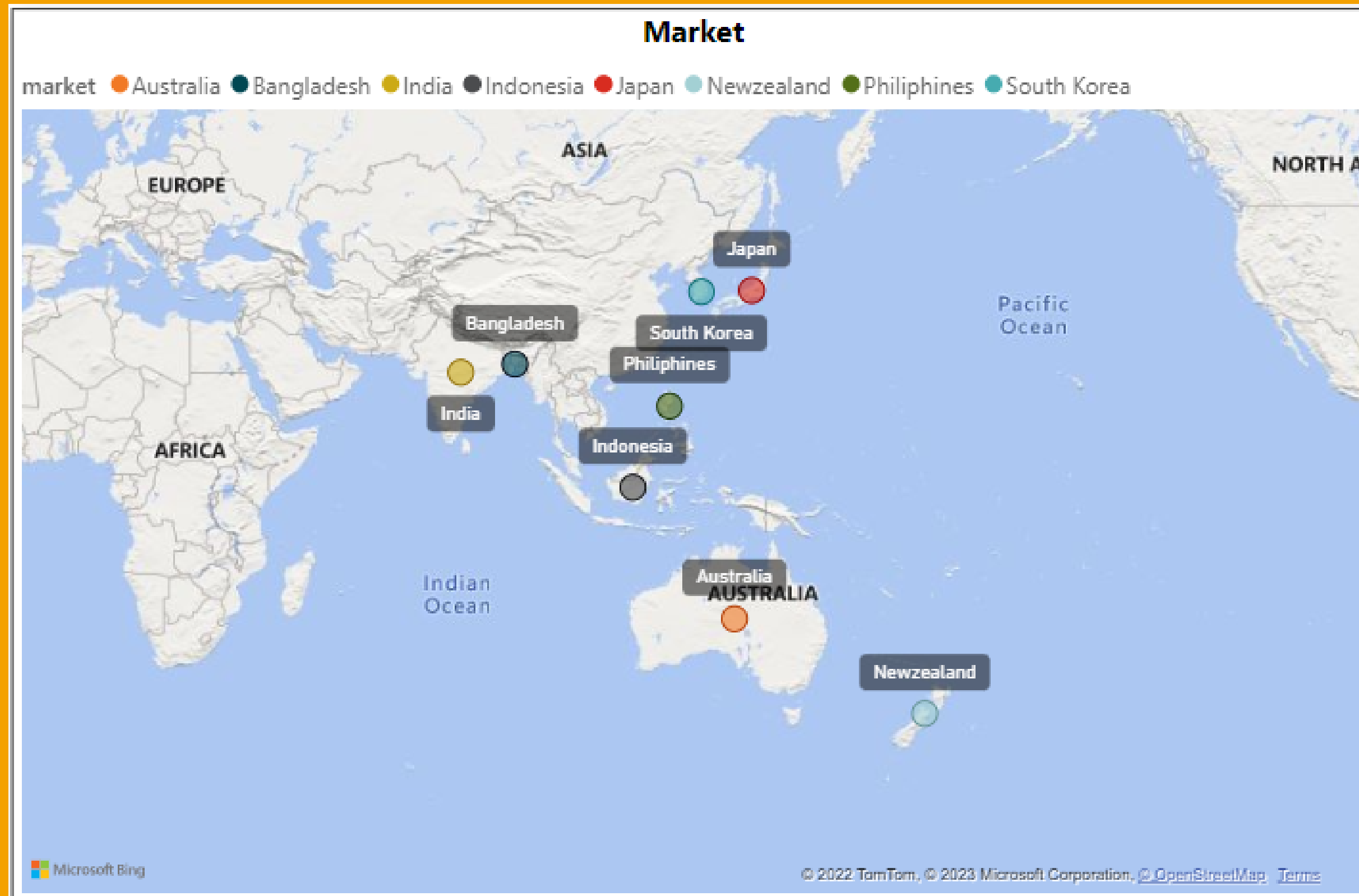


Request 1

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

Atliq Exclusive operates in 8 markets in APAC region



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Request 2

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

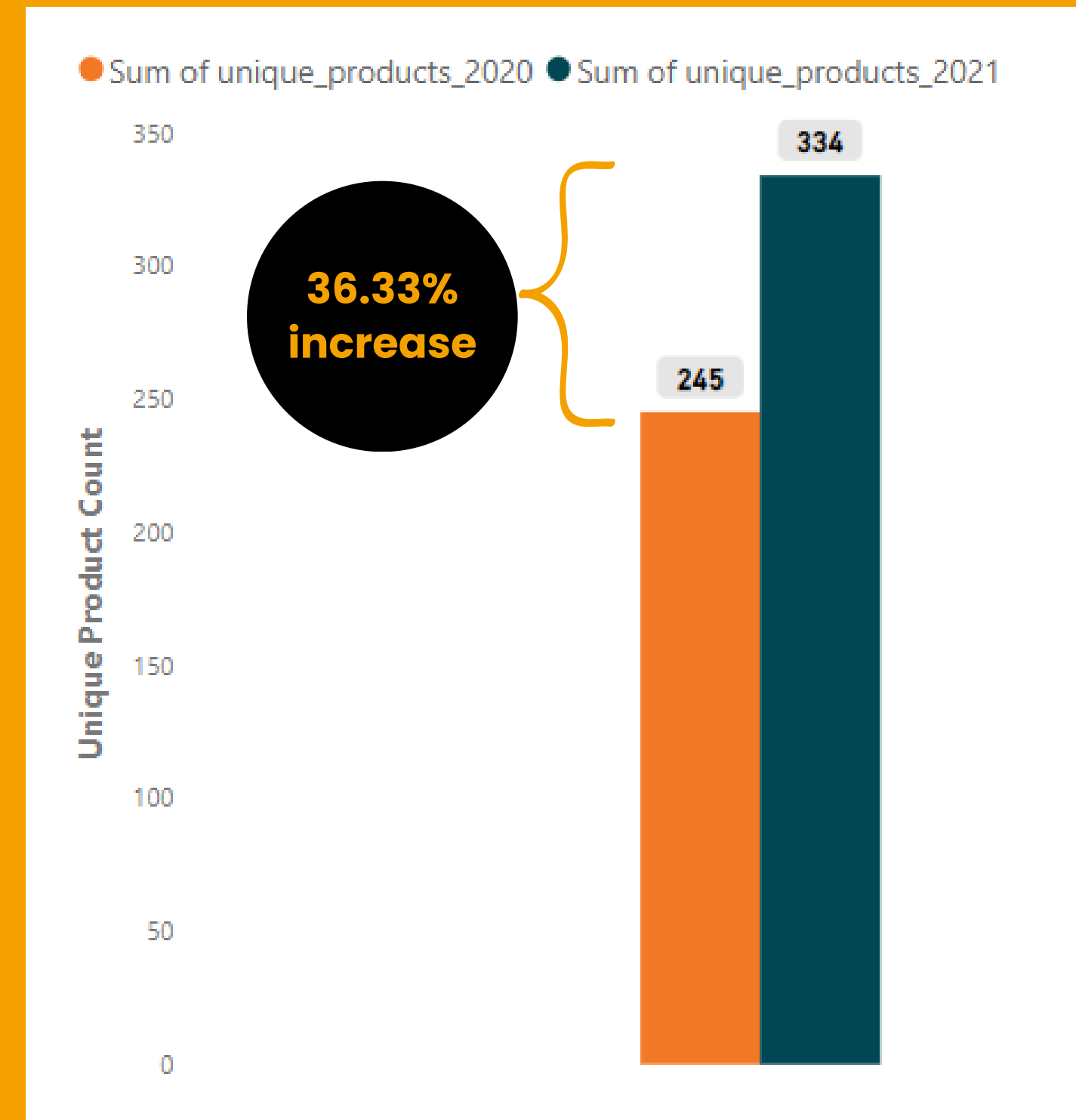
- unique_products_2020
- unique_products_2021
- percentage_chg

	unique_products_2020	unique_products_2021	percentage_chg
▶	245	334	36.33%

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

Around 89 unique products were produced in 2021.

There is 36.33% of increase in unique products from 2020 to 2021.



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

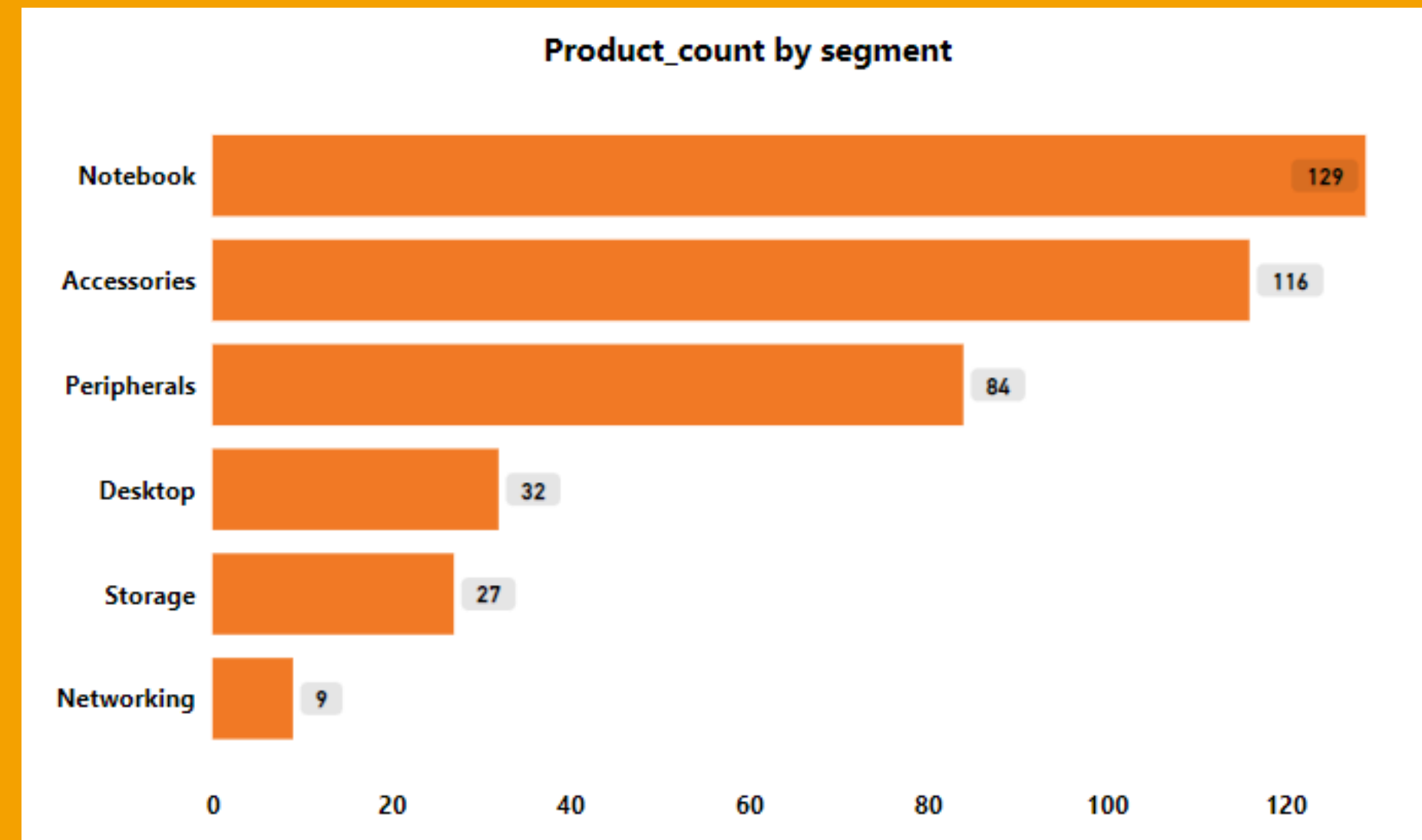
	segment	product_count
▶	Notebook	129
	Accessories	116
	Peripherals	84
	Desktop	32
	Storage	27
	Networking	9

Report of Unique product counts under each segment.

Atliq hardware basically produces products in six segments.

Notebook segment has recorded maximum unique products around 129 followed by Accessories.

Whereas Storage & Networking has recorded least product count.



Request 4

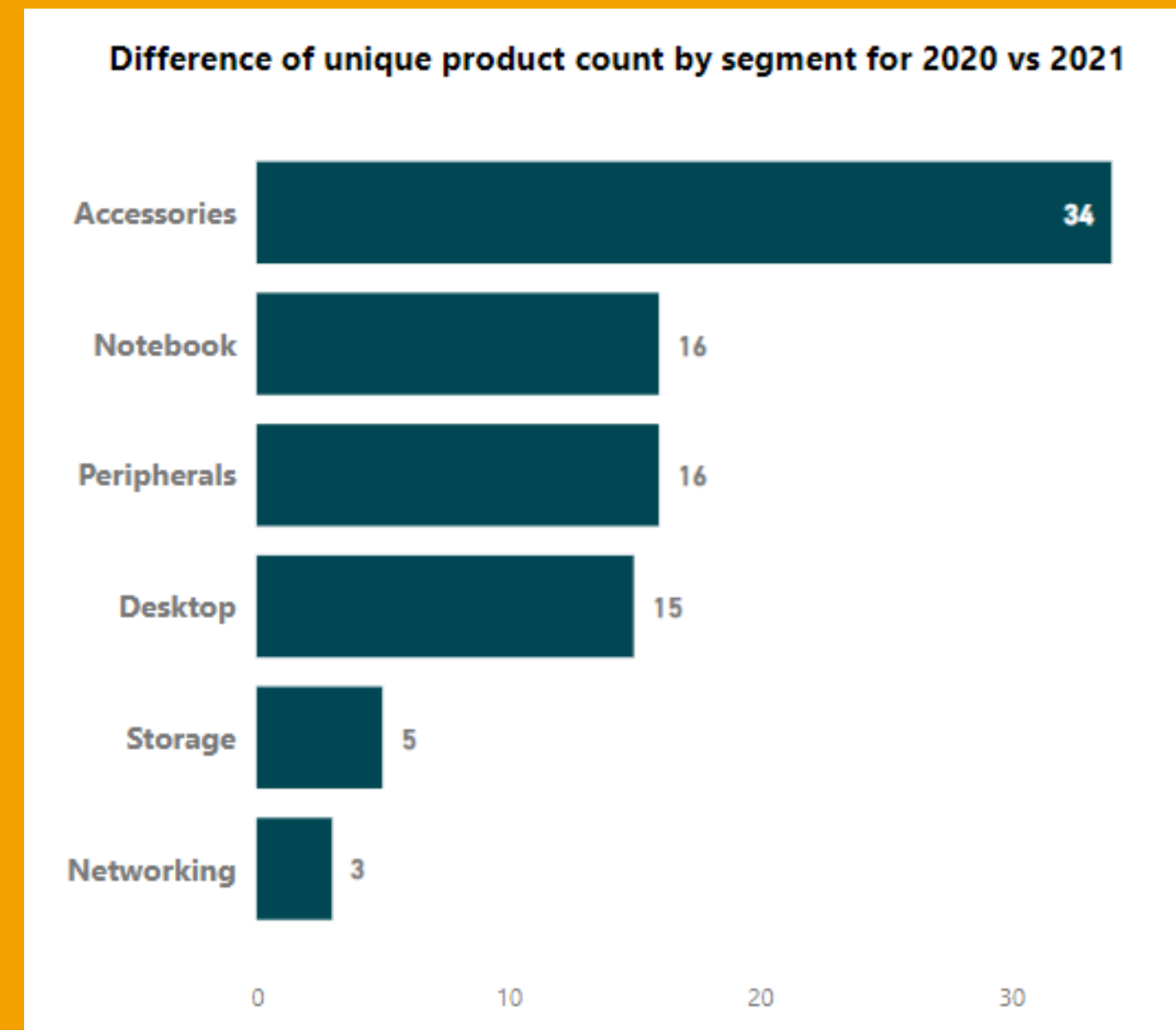
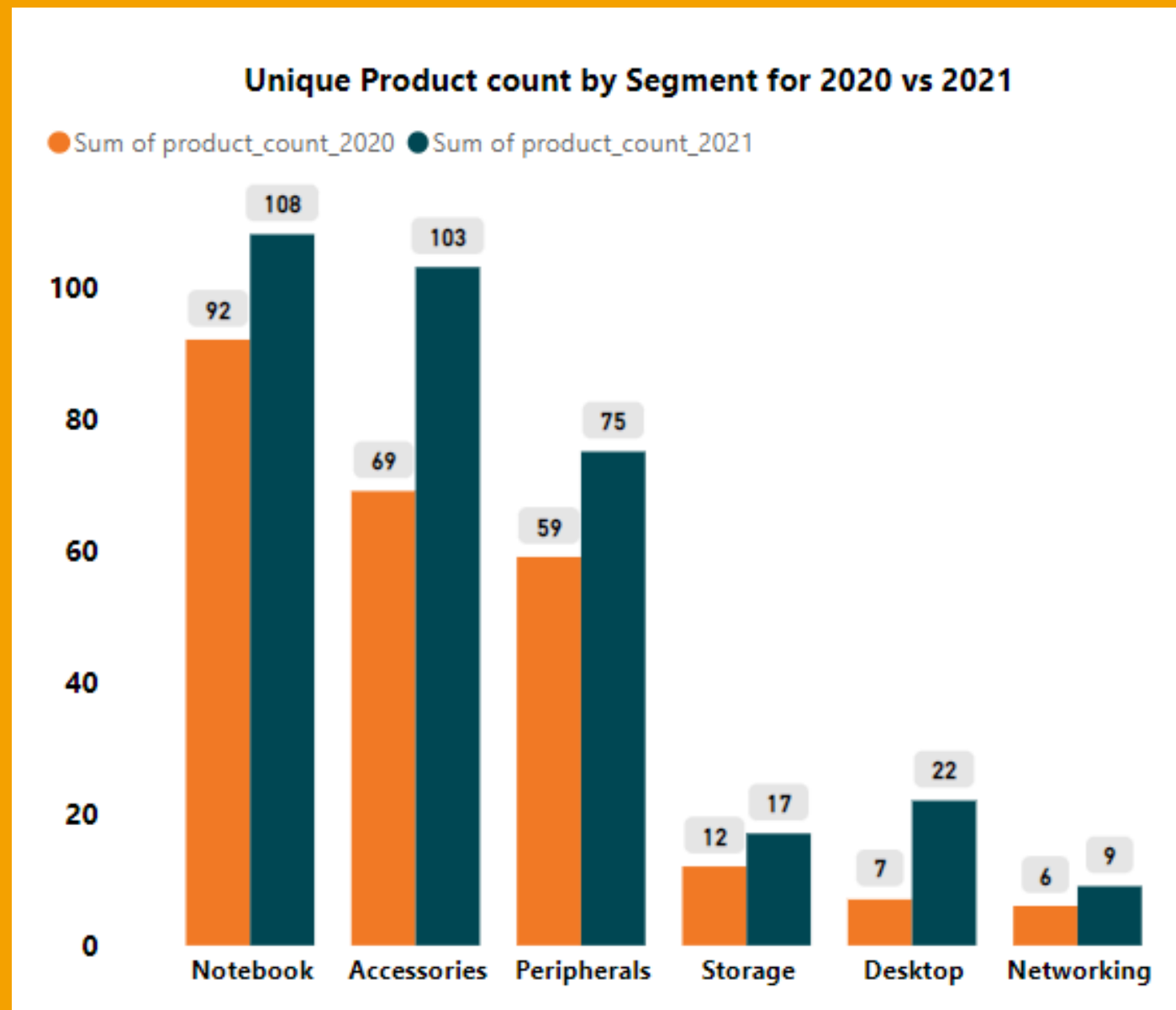
Follow-up: Which segment had the **most increase** in unique products in **2021 vs 2020**? The final output contains these fields:

- segment
- product_count_2020
- product_count_2021
- difference

	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

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

Accessories segment has the most increase in unique products with a difference of 34 in 2021 vs 2020.



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

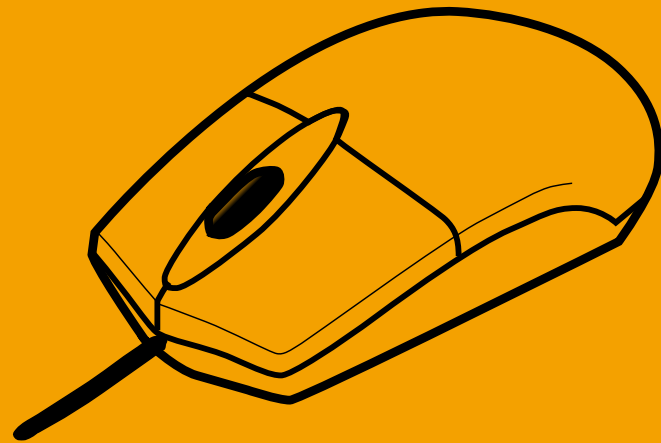
	product_code	product	manufacturing_cost
▶	A2118150101	AQ Master wired x1 Ms	0.89
	A6120110206	AQ HOME Allin1 Gen 2	240.54

Which products that have the **highest** and **lowest** manufacturing costs.



AQ HOME Allin1 Gen 2

Personal Desktop has highest manufacturing cost of
\$240.54



AQ Master wired x1 Ms

Mouse has lowest manufacturing cost of \$0.89

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:

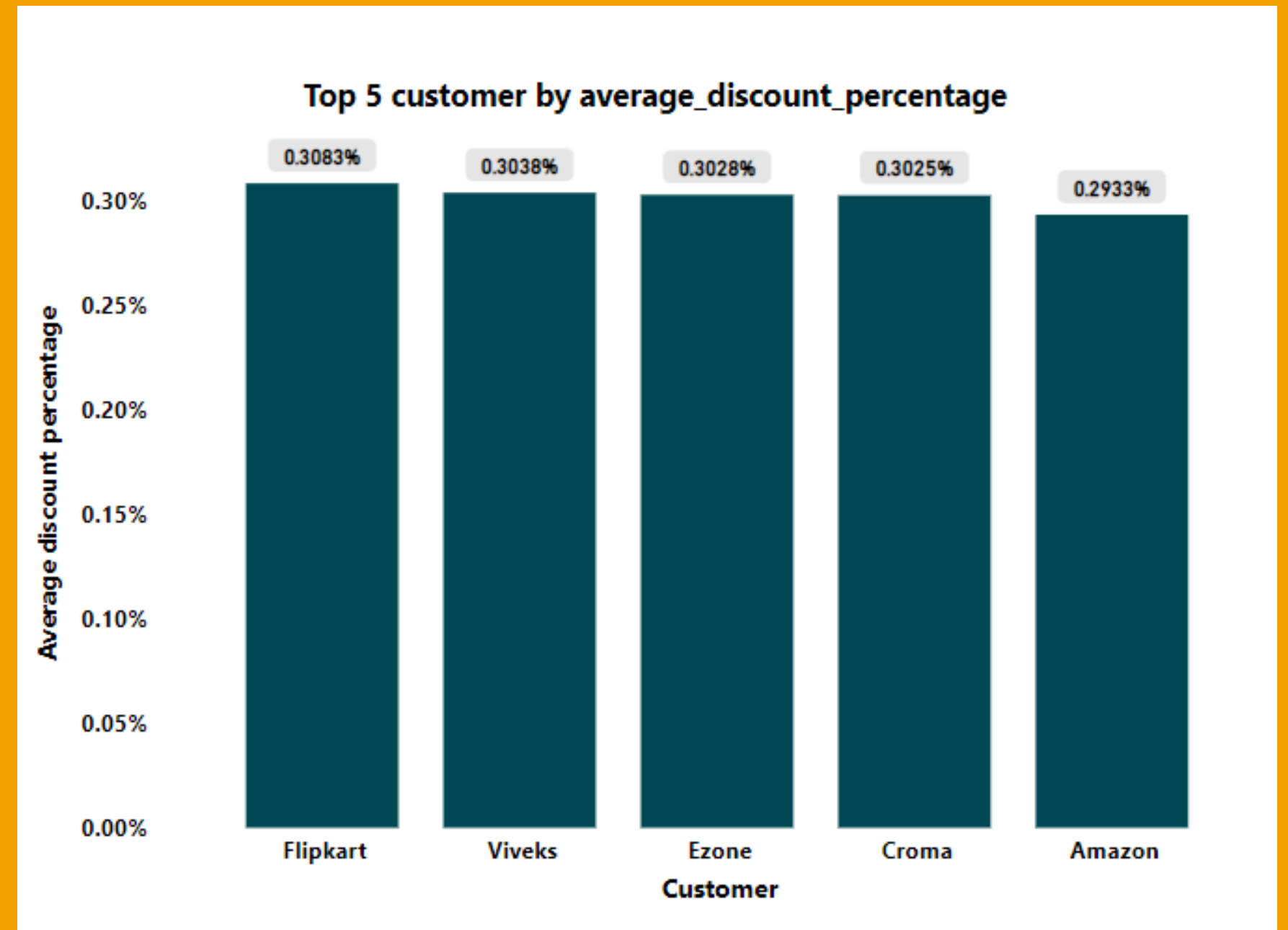
- `customer_code`
- `customer`
- `average_discount_percentage`

	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%

Which are the **top 5 customers** who received an average high `pre_invoice_discount_pct` for the fiscal year **2021** and in the **Indian market**.

For Indian market in FY 2021 the top 5 customers are Flipkart, Viveks, Ezone, Croma & Amazon.

Flipkart has recorded the highest average pre-invoice discount percentage followed by Viveks, Ezone, Croma & Amazon.



Request 7

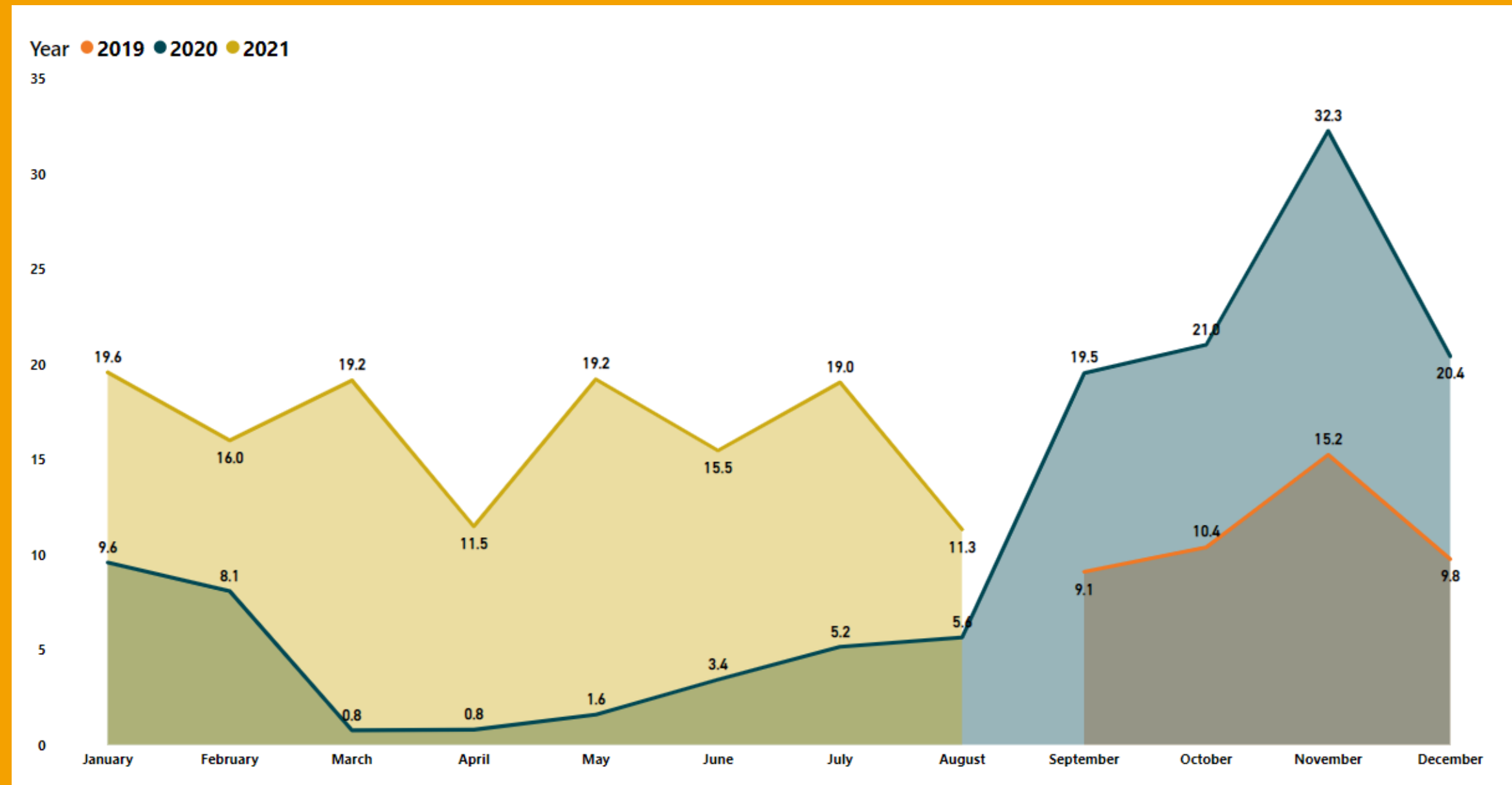
Get the complete report of the Gross sales amount for the customer “**Atliq Exclusive**” for each month. This analysis helps to get an idea of **low** and **high-performing months** and take strategic decisions. The final report contains these columns:

- Month
- Year
- Gross sales Amount

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

Gross sales amount for the customer “Atliq Exclusive” for each month.

- For each year month wise gross sales amount has been visualized for Atliq Exclusive.
- Atliq Exclusive has recorded highest gross sales amount in the month of november 2020 that is 32.3M
- Lowest gross sales amount was recorded in march 2020 that is 0.8M due to covid-19 crisis.



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:

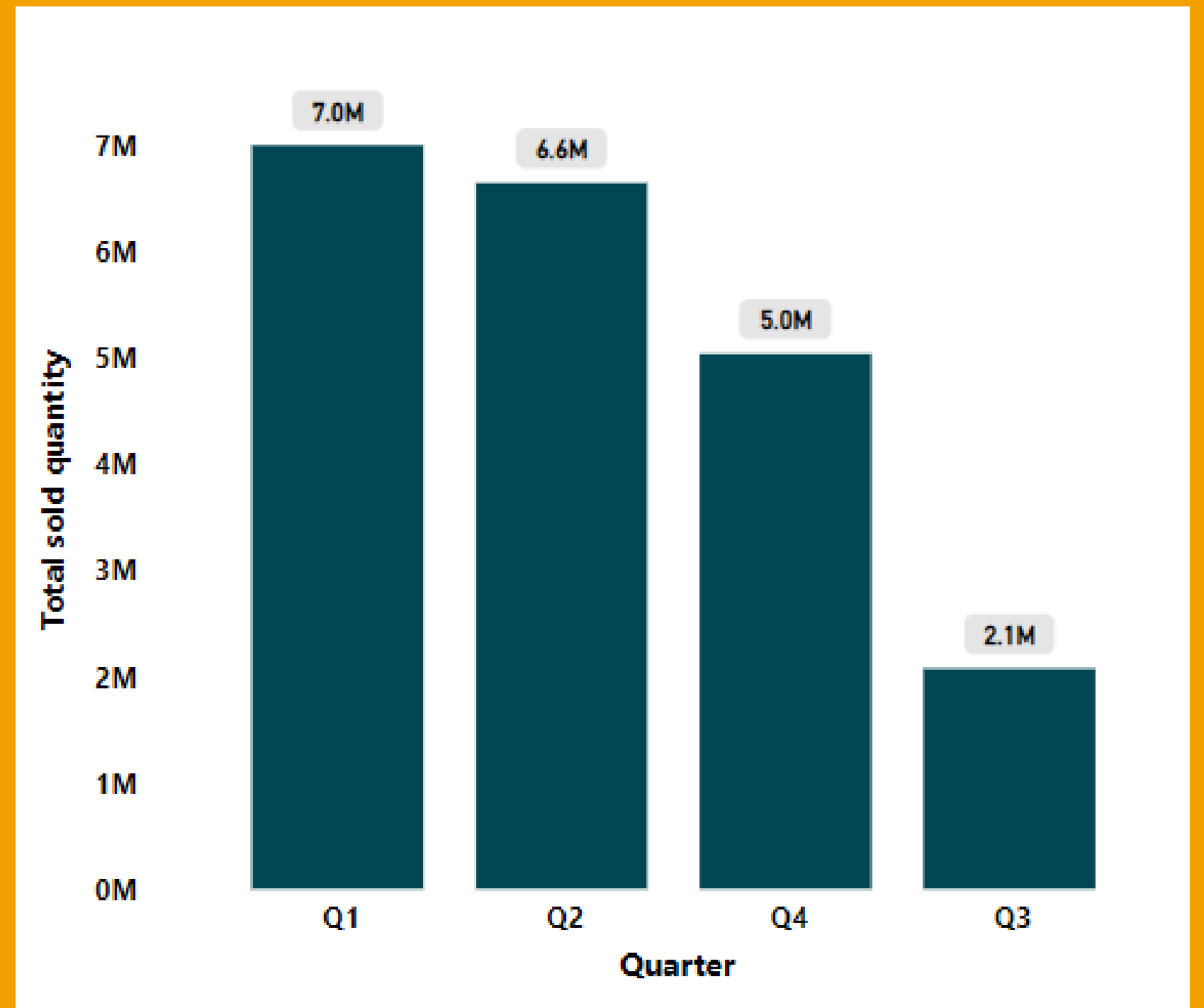
- Quarter
- total_sold_quantity

	Quarter	total_sold_quantity
▶	Q1	7005619
	Q2	6649642
	Q4	5042541
	Q3	2075087

In which **quarter of 2020**, got the maximum total_sold_quantity?

In 2020 Quarter 1 has recorded maximum total sold quantity of 7.0M.

Quarter 3 has recorded lowest total sold quantity of 2.1M due to covid-19 crisis.



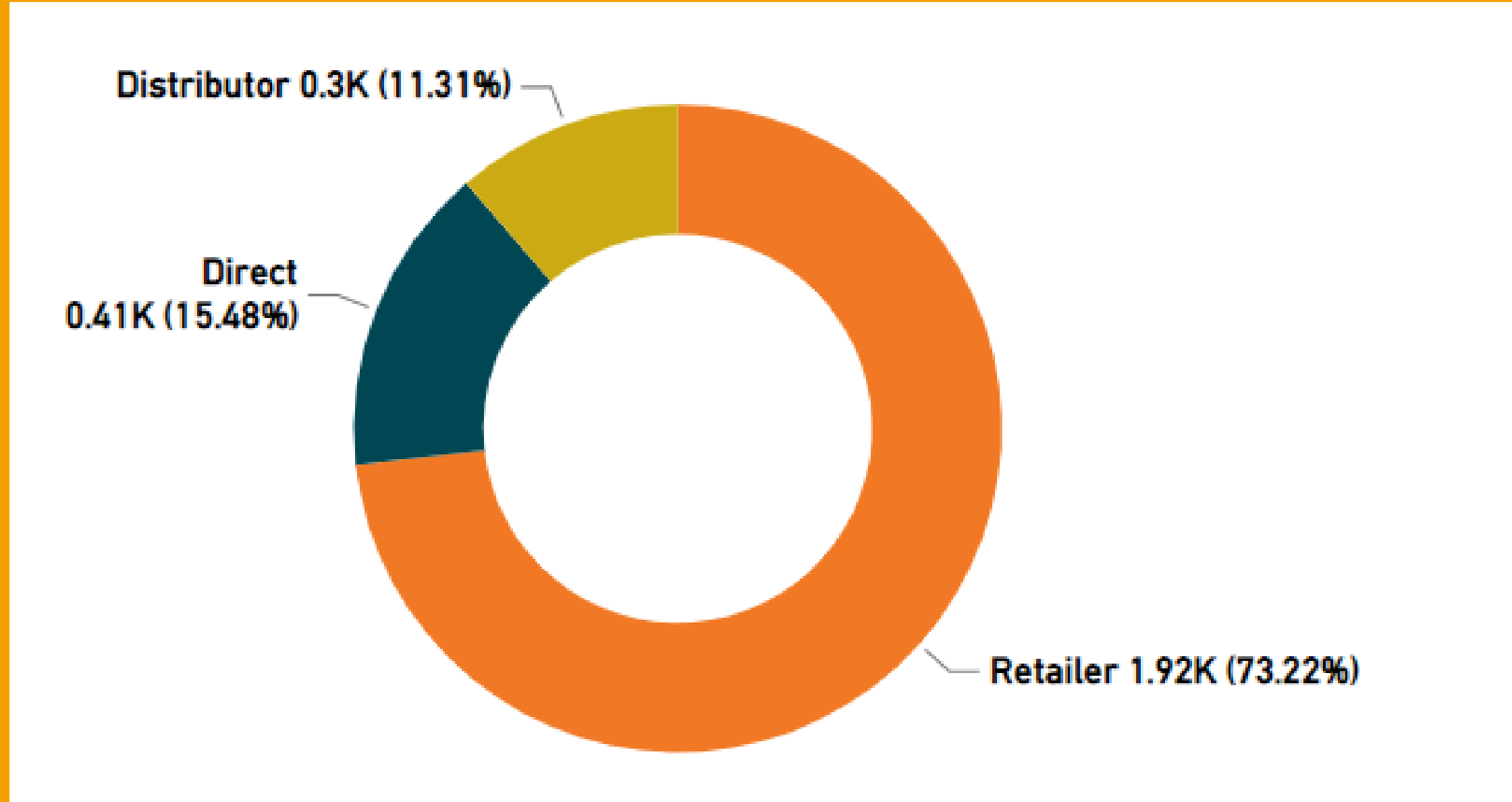
Request 9

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	73.22%
	Direct	406.69	15.47%
	Distributor	297.18	11.31%

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



Retailers have majorly contributed in FY 2021 to bring more gross sales around 73.22%. Followed by Direct (15.48%) & Distributor (11.31%).

Request 10

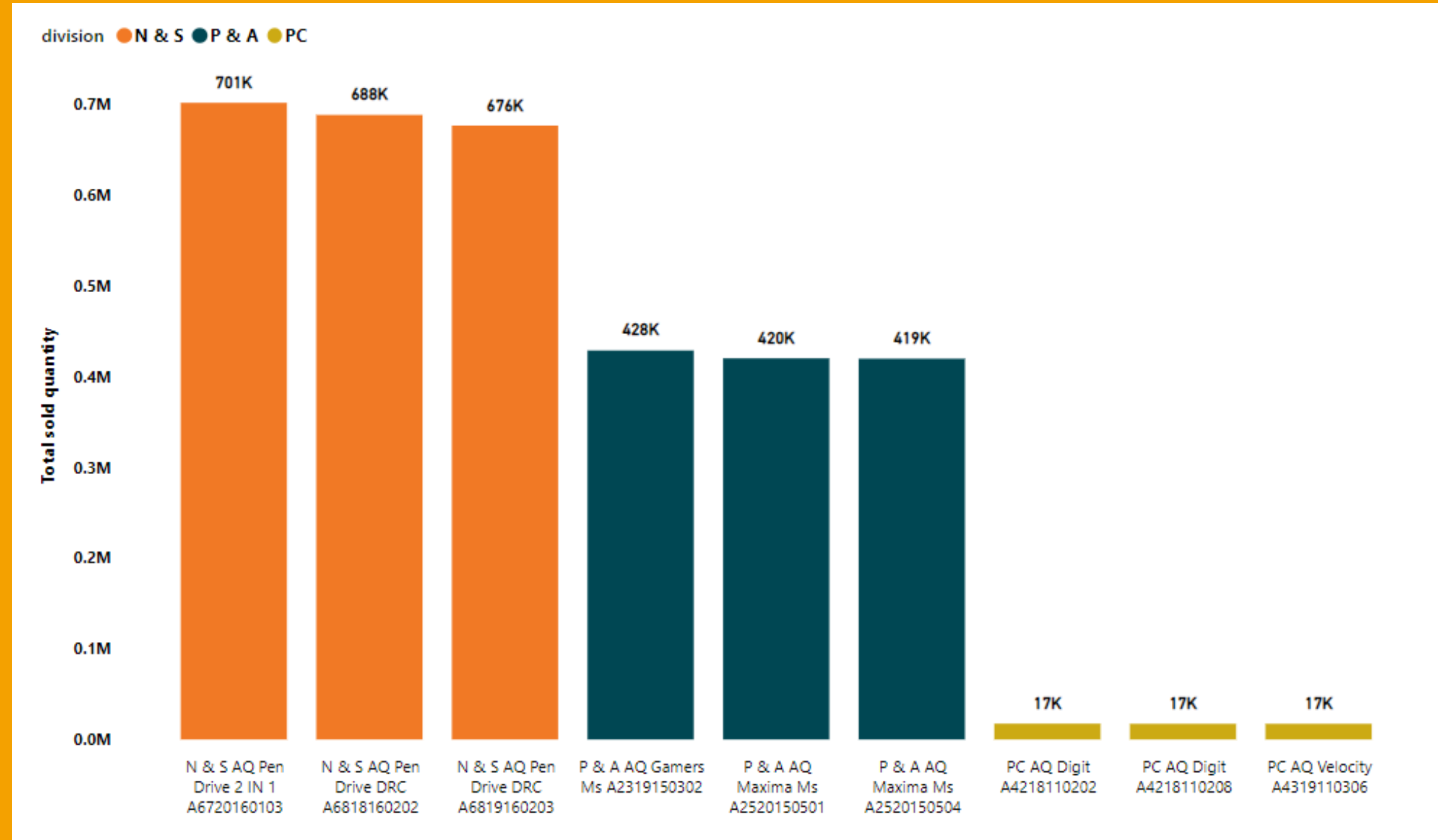
Get the **Top 3 products** in each division that have a high total_sold_quantity in the fiscal_year 2021? The final output contains these fields:

- division
- product_code
- product
- total_sold_quantity
- rank_order

	division	product_code	product	total_sold_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

Which are the **top 3 products** in each division that have a high total_sold_quantity in the fiscal_year 2021?

- AQ Pen Drive 2 IN 1, AQ Gamers Ms & AQ Digit are the top 3 selling products division wise in FY 2021.
- In division N&S has recorded higher sales compared to P&A and PC.
- Lowest sales are recorded by division PC.



A decorative graphic in the top right corner consisting of a grid of squares. The squares are arranged in a pattern that tapers to the right. The colors of the squares include dark yellow, light yellow, and white, set against a dark grey background.

Thank You

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