



Codebasics SQL Challenge





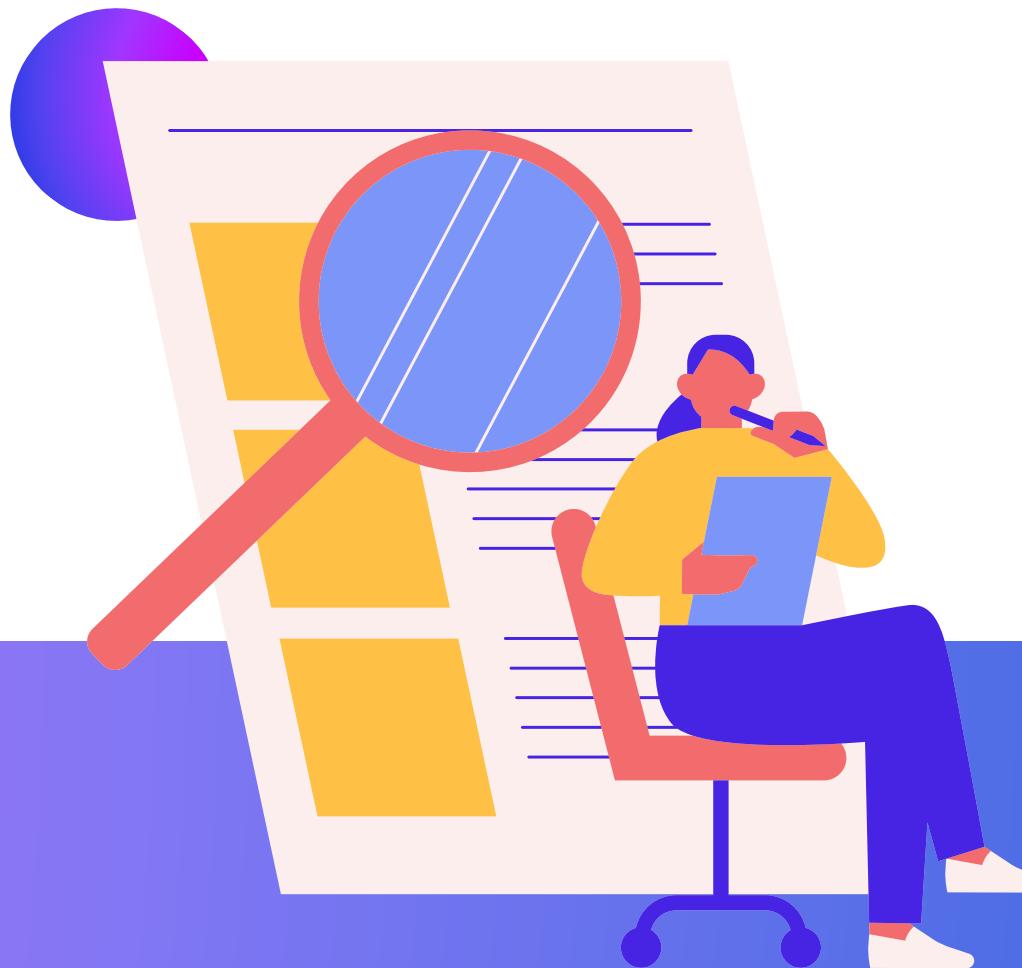
Agenda

- Problem statement
- Ad-Hoc requests
- Queried results
- Visualizations & insights.



Problem statement

**Run a SQL query to answer the ad-hoc requests
and provide insights to make quick and smart
data-informed decisions for Atliq Hardwares**



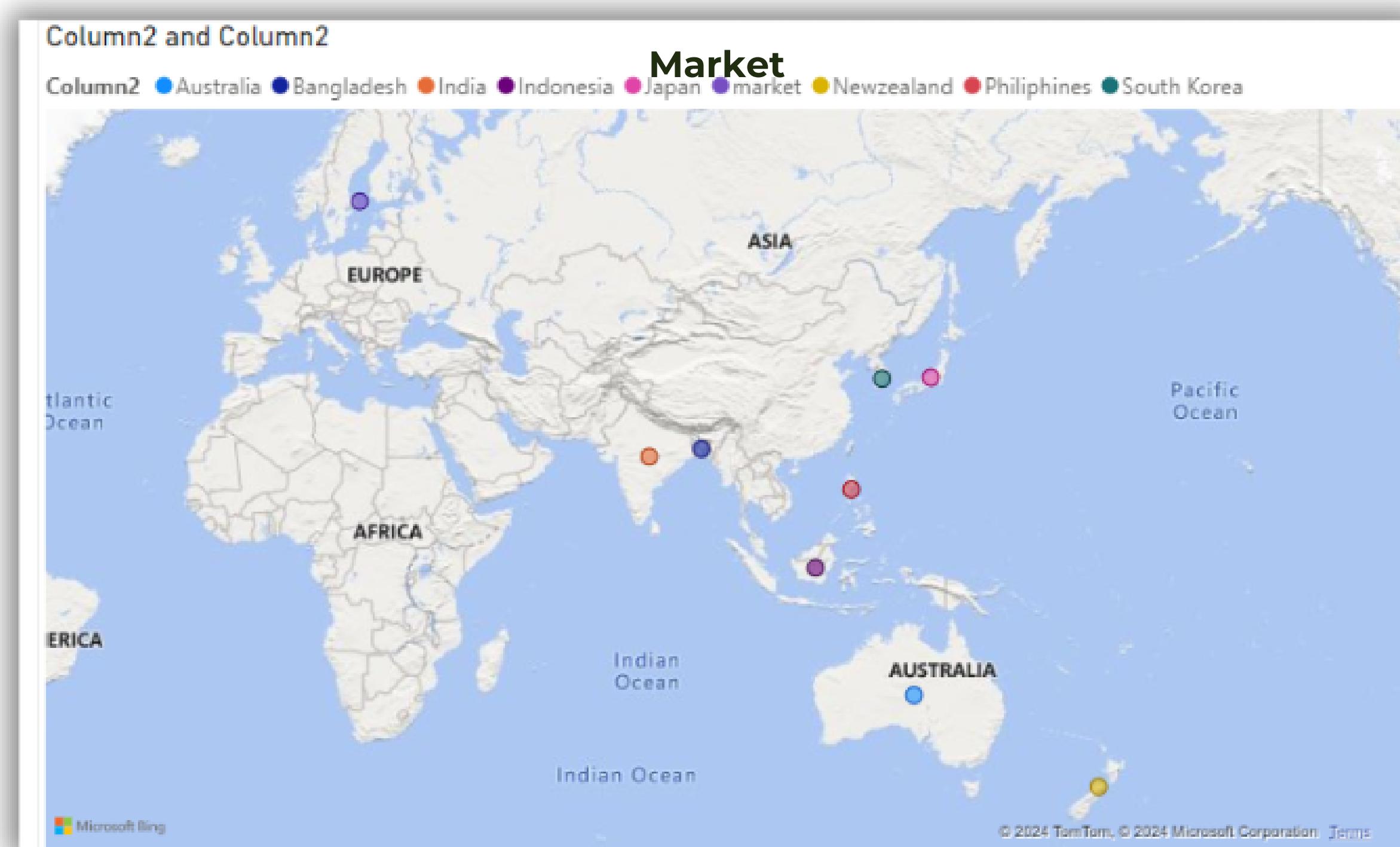


Request- 1

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

customer	market	region
Atliq Exclusive	India	APAC
Atliq Exclusive	Indonesia	APAC
Atliq Exclusive	Japan	APAC
Atliq Exclusive	Philippines	APAC
Atliq Exclusive	South Korea	APAC
Atliq Exclusive	Australia	APAC
Atliq Exclusive	Newzealand	APAC
Atliq Exclusive	Bangladesh	APAC
Atliq Exclusive	India	APAC

Atliq Exclusive operates in 8 markets in APAC region





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	fiscal_year	percentage_chg
245	2020	0
334	2021	36.33

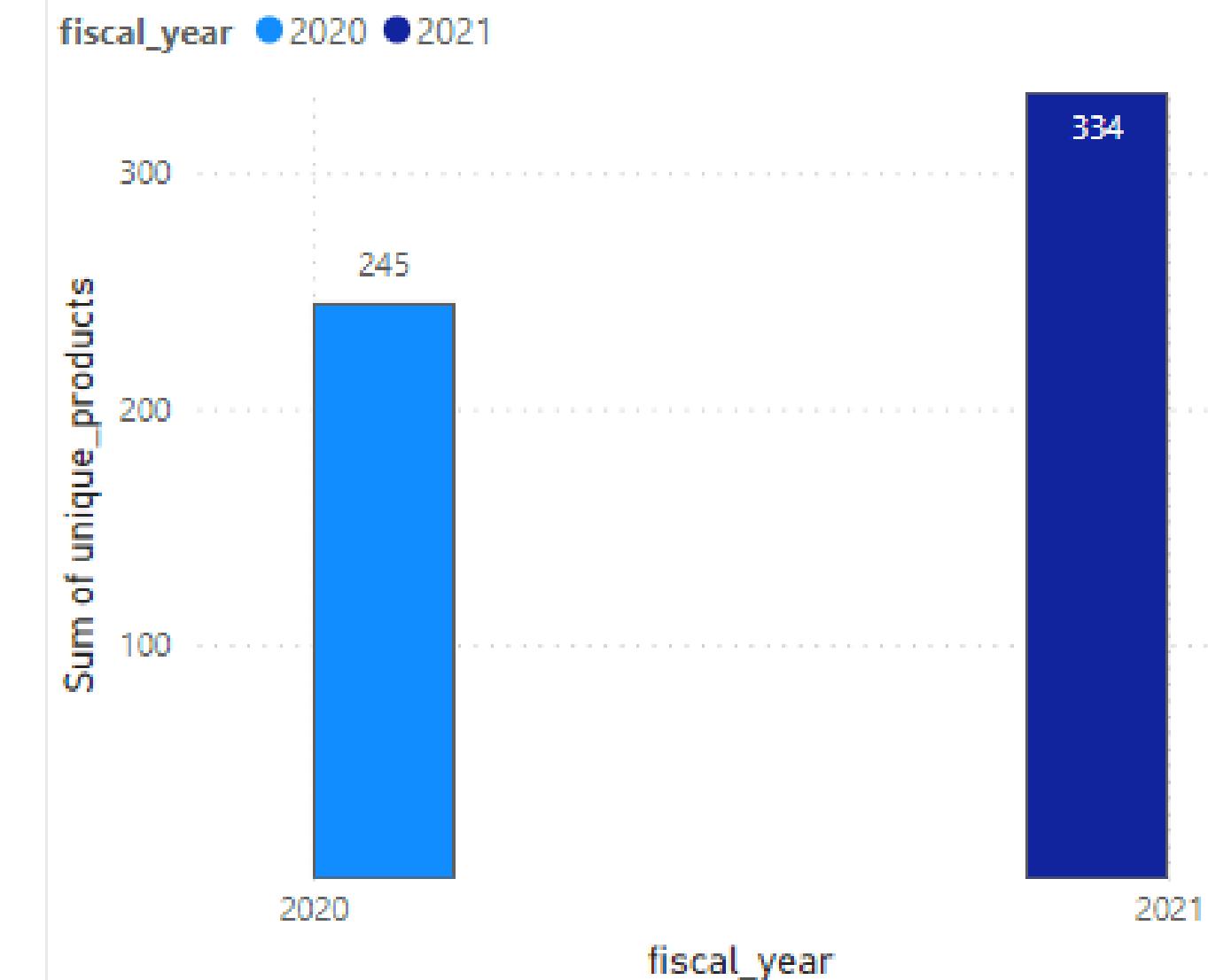
What is the **percentage** of unique product increase in **2021 vs. 2020?**



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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	200
Accessories	172
Peripherals	134
Desktop	29
Storage	29
Networking	15

Unique product counts under each segment.

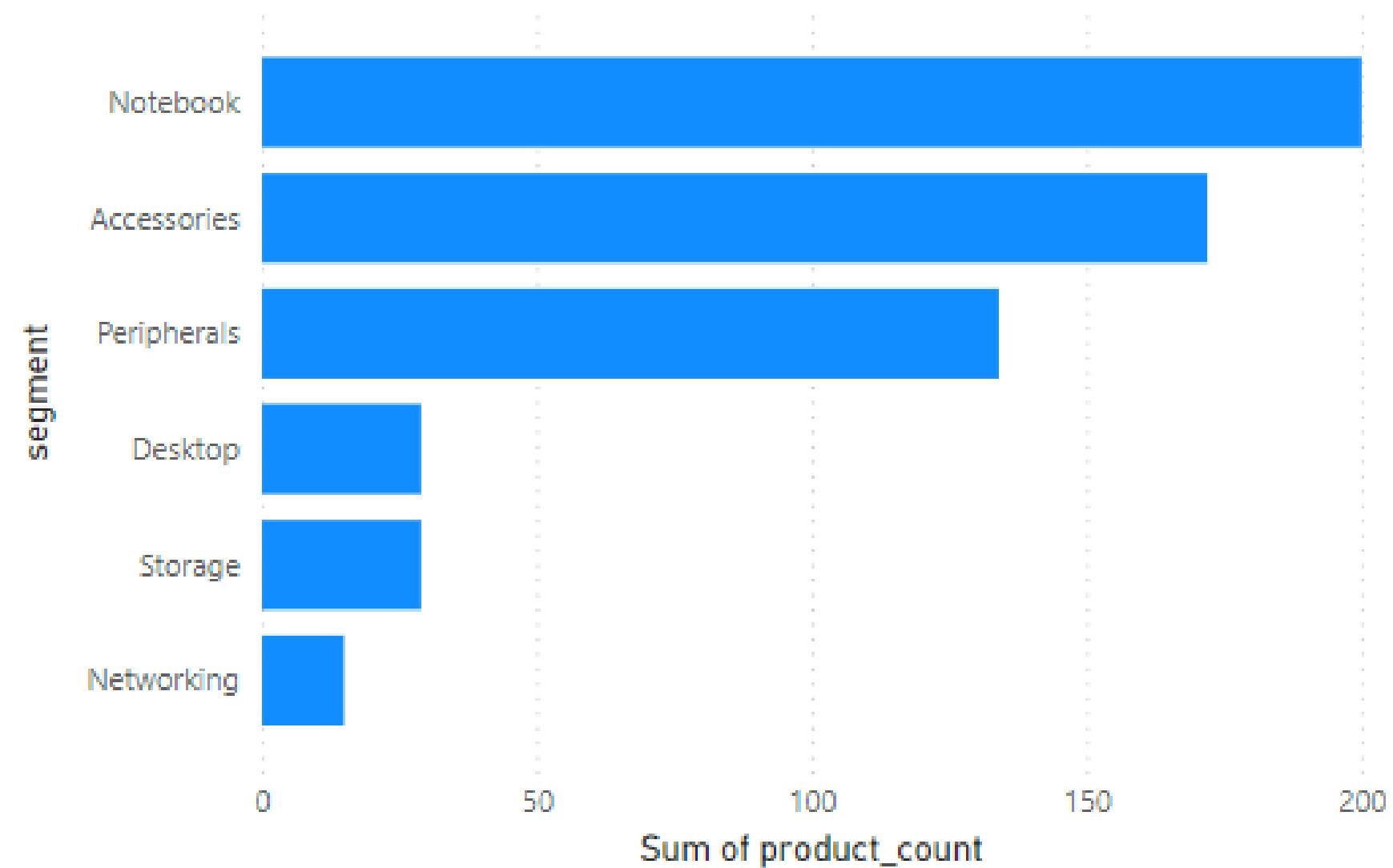


Atliq hardware produces products in six segments.

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

Whereas Storage & Networking has recorded least product count.

Sum of product_count by segment





Request- 4

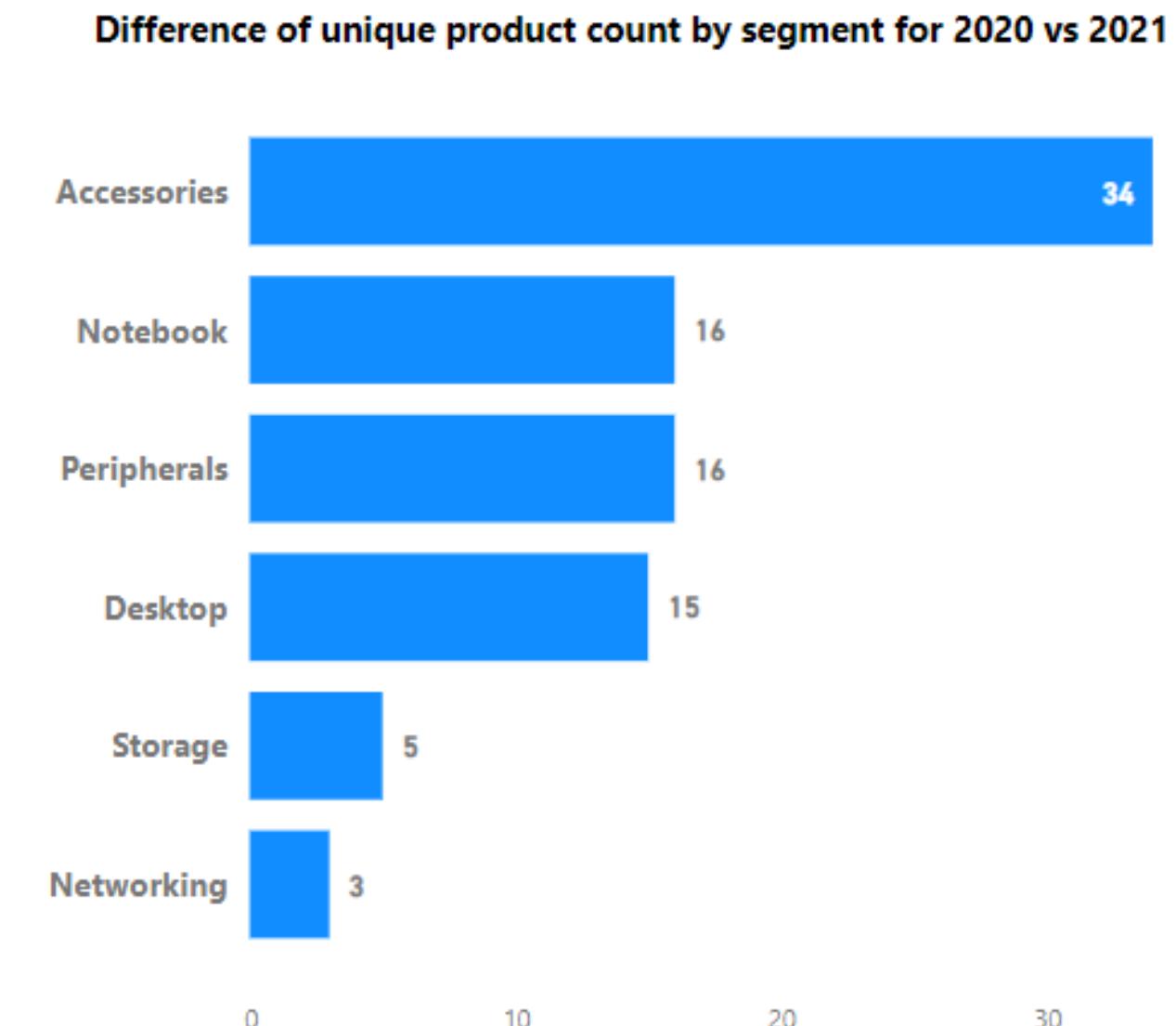
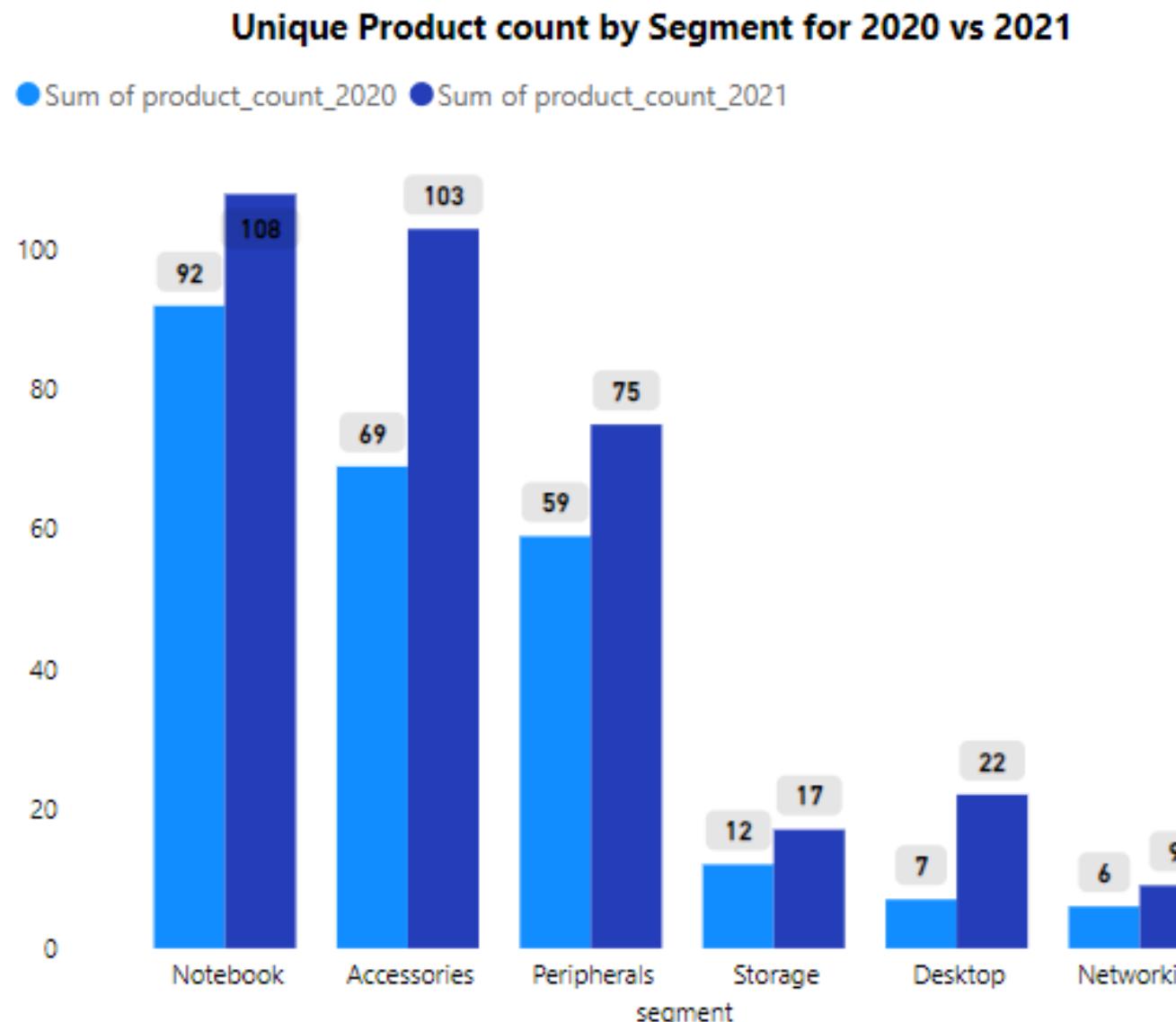
Follow-up: Which segment had the most increase in unique products in 2021 vs 2020? The final output contains these fields, segment product_count_2020 product_count_2021 difference

segment	product_count_2020	product_count_2021	difference
Accessorie	69	103	34
Notebook	92	108	16
Peripheral	59	75	16
Desktop	7	22	15
Storage	12	17	5
Networkin	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

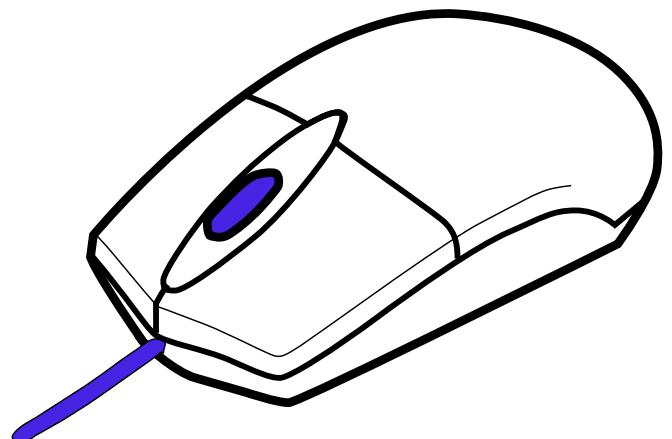
product_code	product	manufacturing_cost
A6120110206	AQ HOME Allin1 Gen 2	240.5364
A2118150101	AQ Master wired x1 Ms	0.892

Products having 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

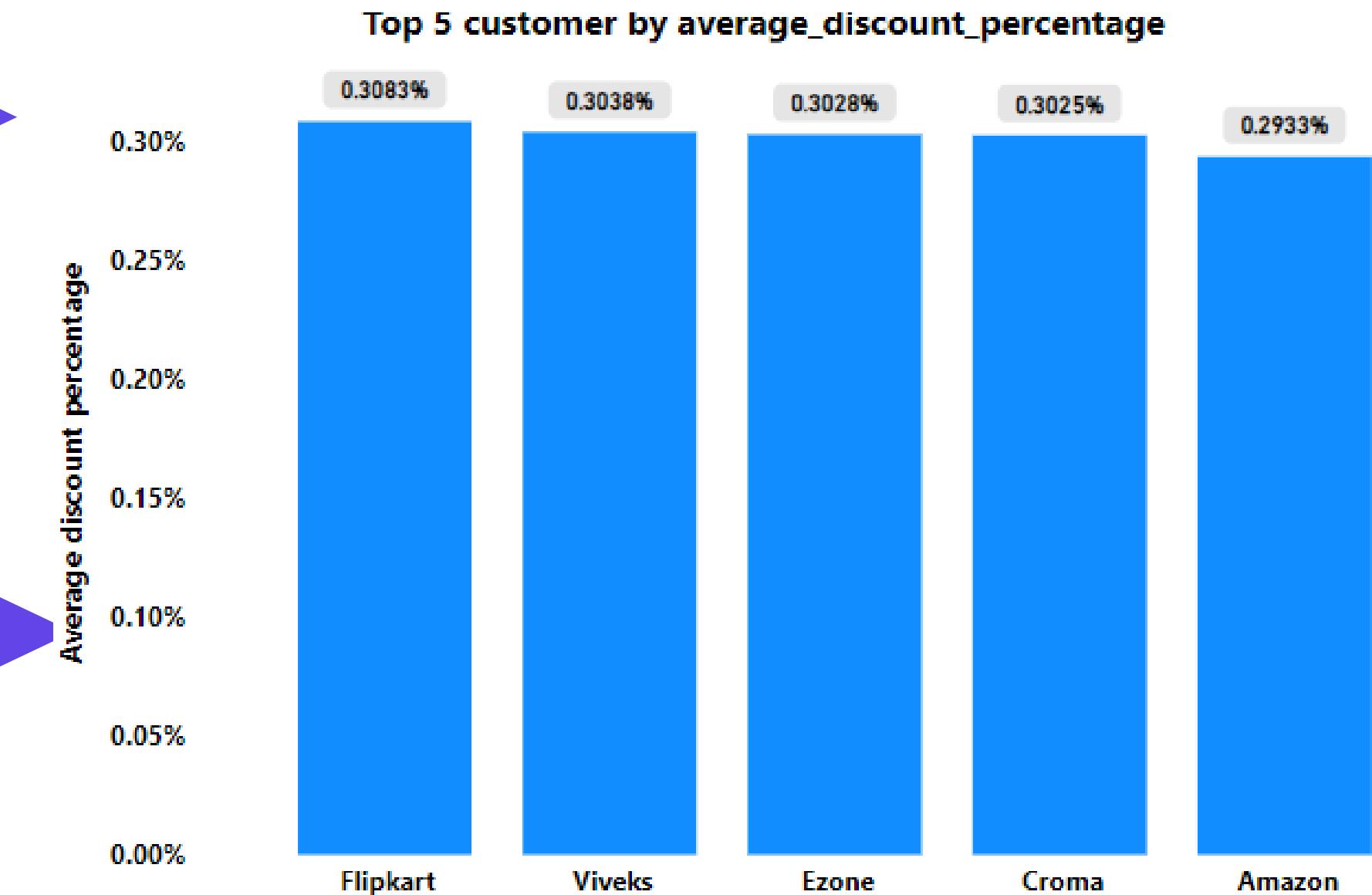
Generate a report which contains the top 5 customers who received an average high pre_invoice_discount_pct for the fiscal year 2021 and in the Indian market. The final output contains these fields, customer_code customer average_discount_percentage

customer_code	customer	average_discount_percentage
90002009	Flipkart	0.3
90002003	Ezone	0.28
90002004	Vijay Sales	0.28
90002006	Viveks	0.27
90002011	Atliq Exclusive	0.27

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_and_year	gross_sales_amount
01-09-2019	19903.33
01-10-2019	17150.75
01-11-2019	40794.78
01-12-2019	19762.18
01-01-2020	21173.76
01-02-2020	18174.14
01-03-2020	1764.48
01-04-2020	2082.09
01-05-2020	2646.72
01-06-2020	6316.84
01-07-2020	10022.25
01-08-2020	8187.19
01-09-2020	29184.5
01-10-2020	30596.08
01-11-2020	32537.01
01-12-2020	36136.55
01-01-2021	24773.3
01-02-2021	23573.45
01-03-2021	24385.11
01-04-2021	13163.02
01-05-2021	27031.83
01-06-2021	21279.63
01-07-2021	23679.32
01-08-2021	17009.59
01-09-2019	25284.29
01-10-2019	28382.86
01-11-2019	38711.41
01-12-2019	24292.75

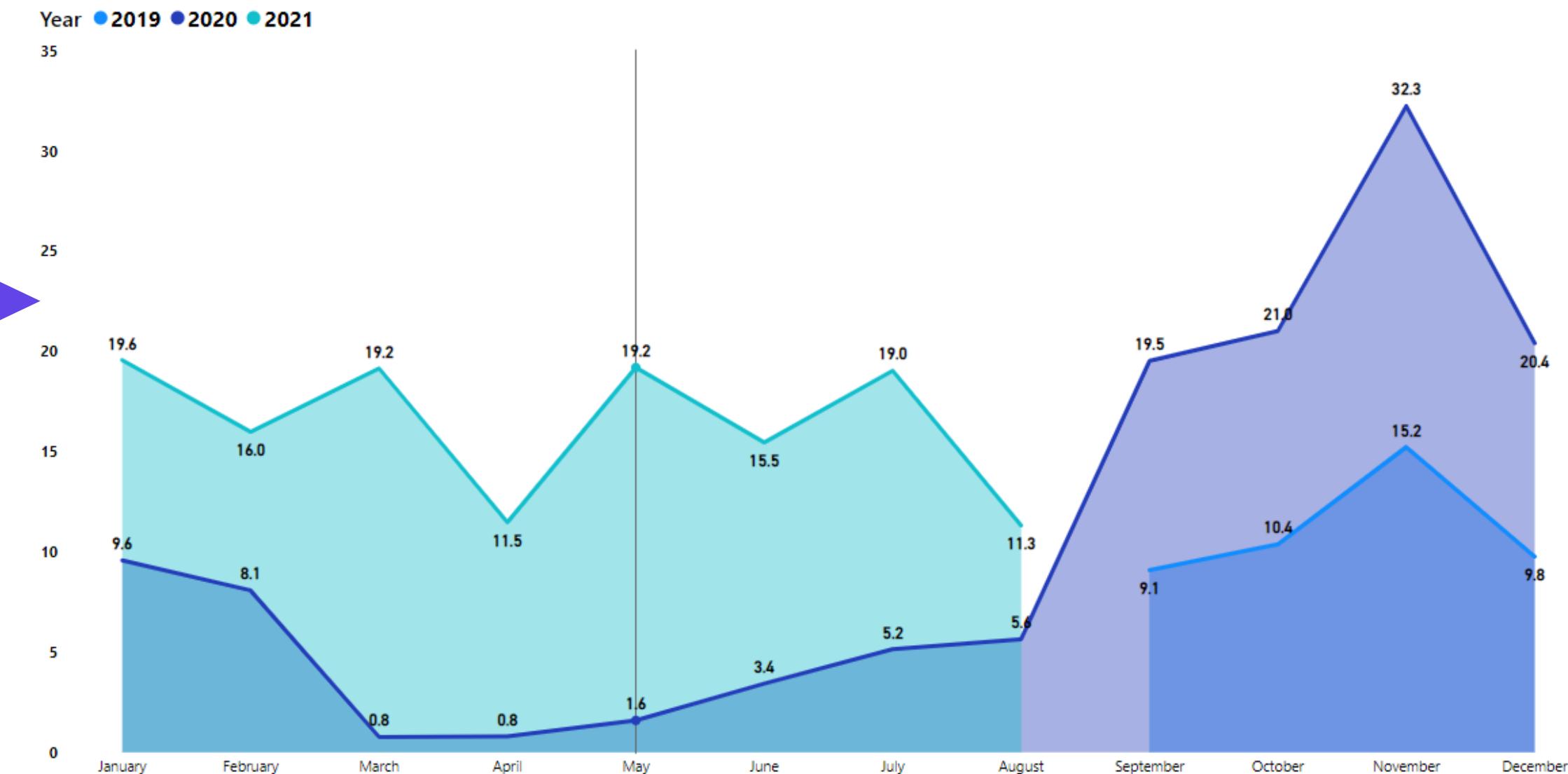
Gross sales amount for the customer “Atliq Exclusive” for each month.



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Atliq Exclusive 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

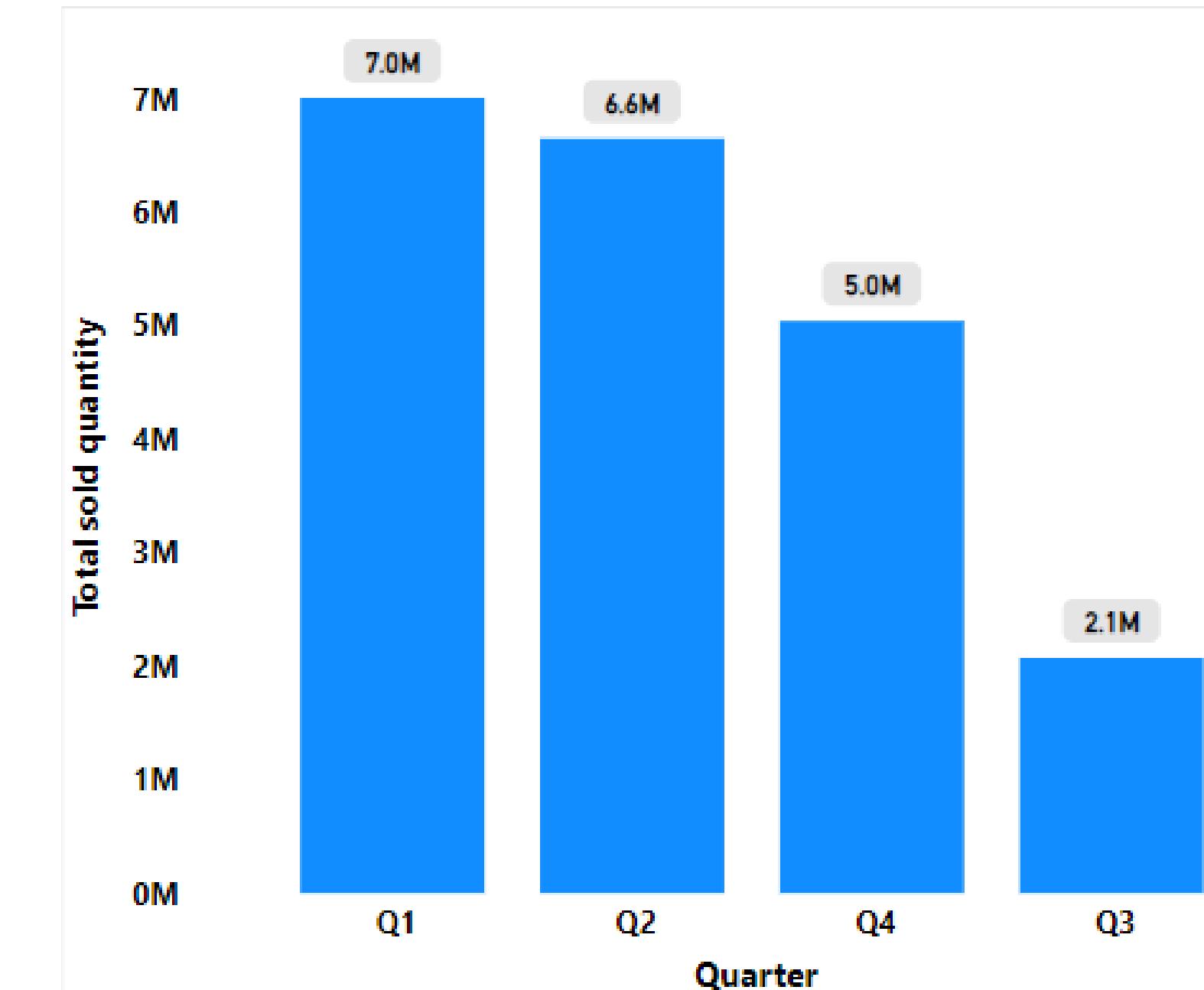
quarter	gross_sales_amount
1	326760.85
2	172728.11
3	309273.15
4	604543.44

Quarter of 2020 which 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.



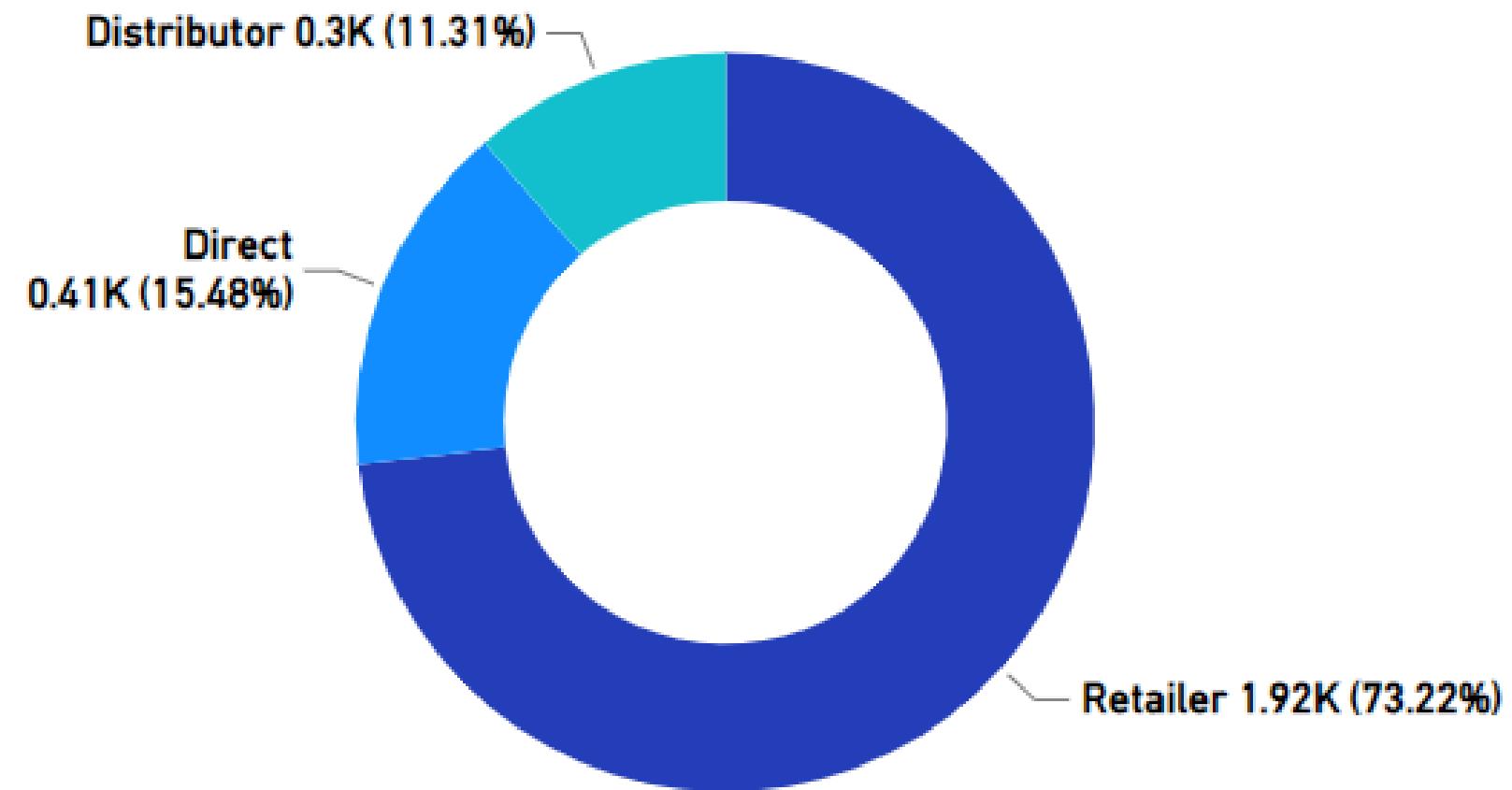


Request- 9

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	percentage
Retailer	6430111	67
Direct	1518665	16
Distributor	1002688	10

Products having the highest and lowest manufacturing costs.



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

segment	product_count_2020	product_count_2021	difference
Accessories	69	103	34
Notebook	92	108	16
Peripheral	59	75	16
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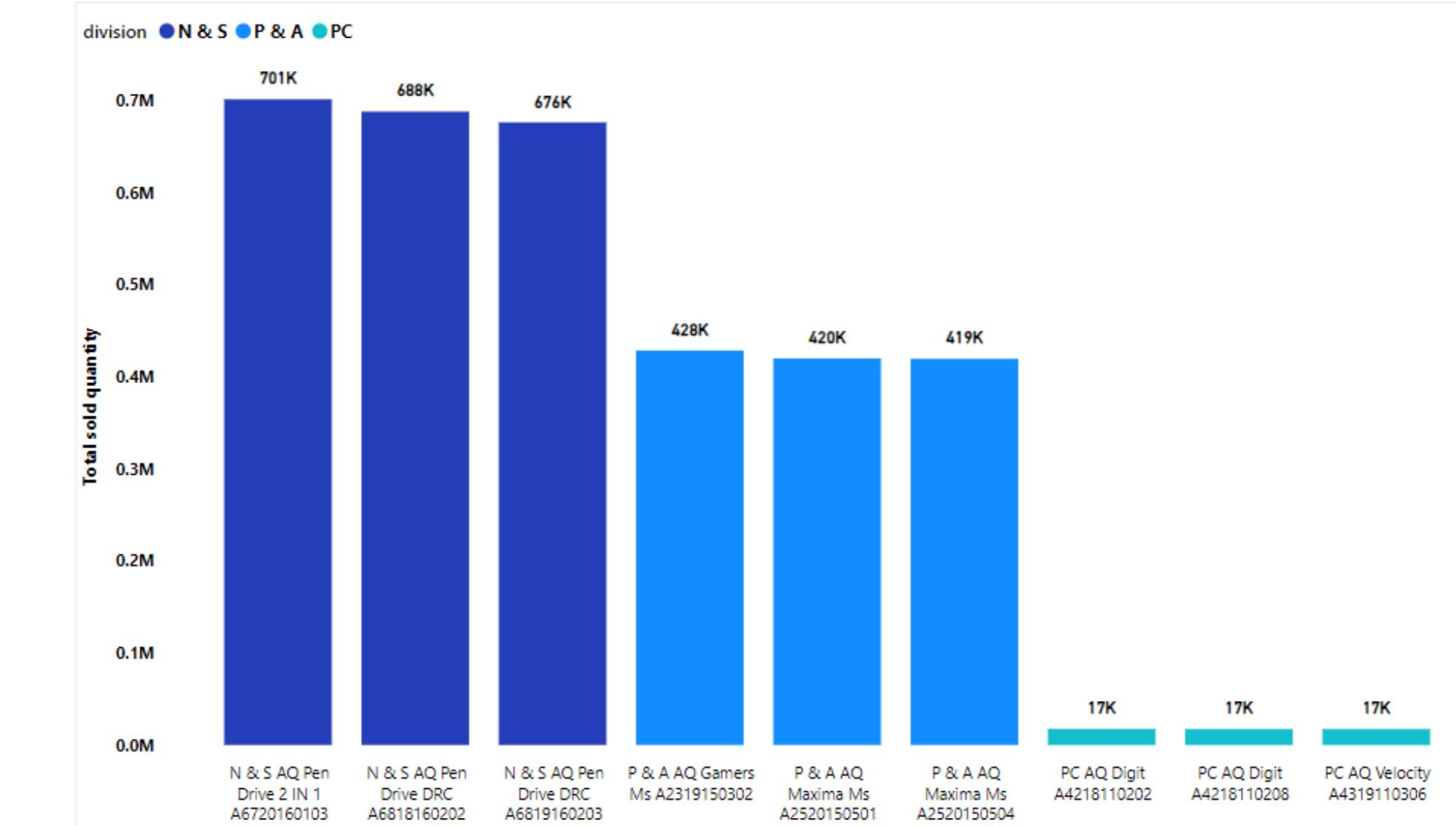
The top 3 products in each division that have a high total_sold_quantity in the fiscal_year 2021?



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.



Thank you

