








Ad-Hoc-Insights

Consumer Goods



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Atliq Business Model

Atliq Hardwares (imaginary company) is one of the leading computer hardware producers in India and well expanded in other countries too.

- The Fiscal Year For Atliq Starts From 1st Sept And Ends On 31 Aug Each Year

(Sept 2019 – Aug 2020 → FY 2020)

(Sept 2020 – Aug 2021 → FY 2021)

- The Sales Data Is Available For FY 2020 To FY 2021



Problem Statement

**How is our
company
performing?**

**Well, we are becoming one of
the leading computer
hardware producers in India
and well expanded in other
countries too!**



Problem Statement

Well, that is
good news

But we are noticing that we are
not getting enough insights to
make quick and smart data
informed decisions.



Problem Statement

Then, I think We have to expand our data analytics team and hire someone who is good at both tech and soft skills

Yes, Let's conduct a SQL challenge which will help us to understand both the skills and hire accordingly



DATA SET

dim_customer_copy1
customer_code INT
customer VARCHAR(150)
platform VARCHAR(45)
channel VARCHAR(45)
market VARCHAR(45)
sub_zone VARCHAR(45)
region VARCHAR(45)

fact_gross_price_copy1
product_code VARCHAR(45)
fiscal_year YEAR
gross_price DECIMAL(15,4)

fact_manufacturing_cost_c...
product_code VARCHAR(45)
cost_year YEAR
manufacturing_cost DECIMAL(15,4)

fact_pre_invoice_deduction...
customer_code INT
fiscal_year YEAR
pre_invoice_discount_pct DECIMAL(5,4)

fact_sales_monthly_copy1
date DATE
product_code VARCHAR(45)
customer_code INT
sold_quantity INT
fiscal_year YEAR

dim_product_copy1
product_code VARCHAR(45)
division VARCHAR(45)
segment VARCHAR(45)
category VARCHAR(45)
product VARCHAR(200)
variant VARCHAR(45)

AD-HOC REQUESTS



Codebasics SQL Challenge

Requests:

1. Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC region.
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
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
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
5. Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields,
product_code
product
manufacturing_cost



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
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
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
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
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

REQUEST -1

- List Of Markets Where Customer “Atliq Exclusive” Operates Business In “Asia Pacific” Region For Fiscal Year 2020-2021

OUTPUT



market
India
Indonesia
Japan
Philippines
South Korea
Australia
Newzealand
Bangladesh



➤ Atliq Exclusive has a strong presence in eight countries in the 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

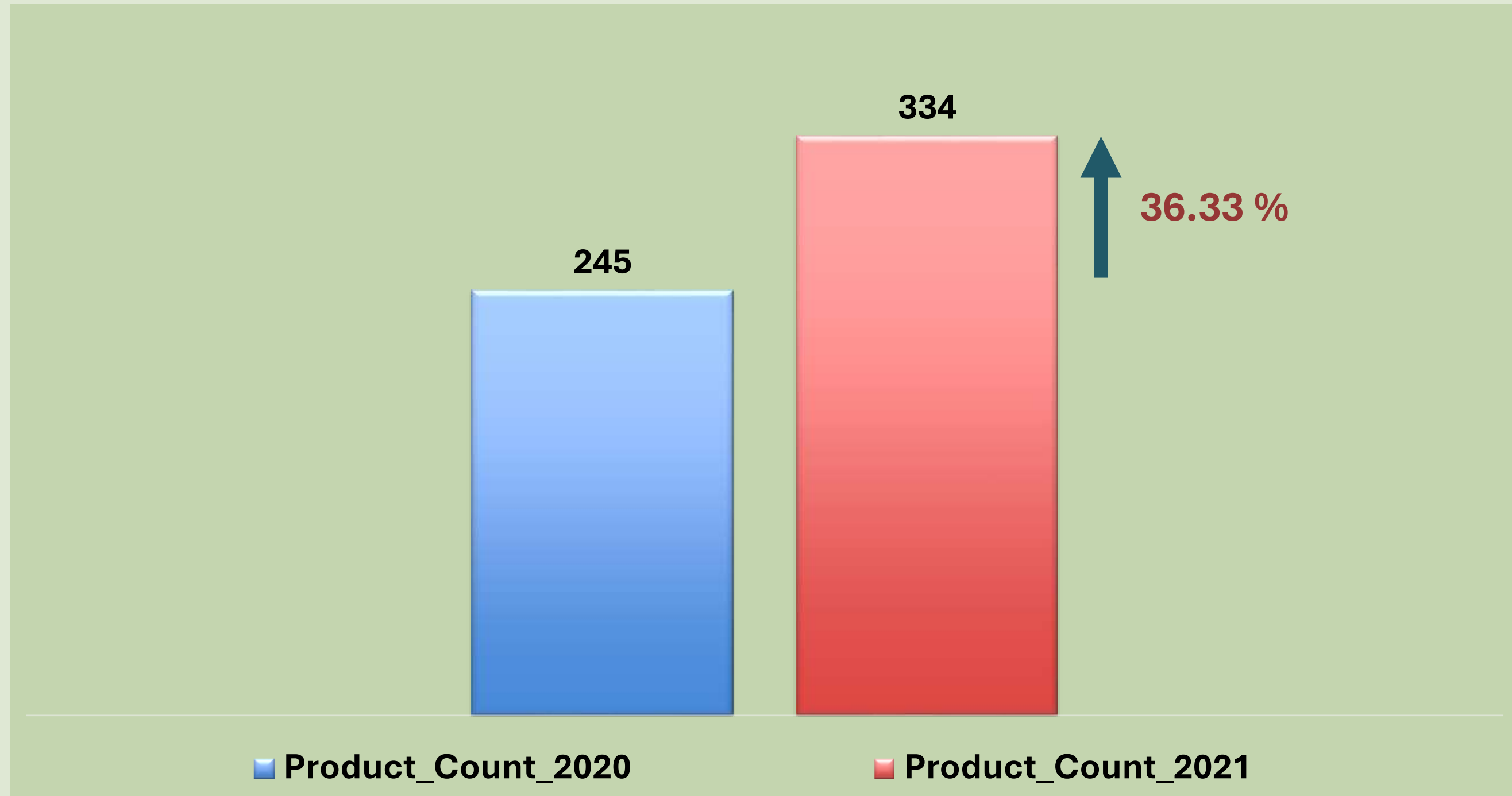
OUTPUT



unique_products_2020	unique_products_2021	percentage_change
245	334	26.6467



INSIGHT



- Atliq Exclusive expanded its product range by 33% in 2021 compared to previous year

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

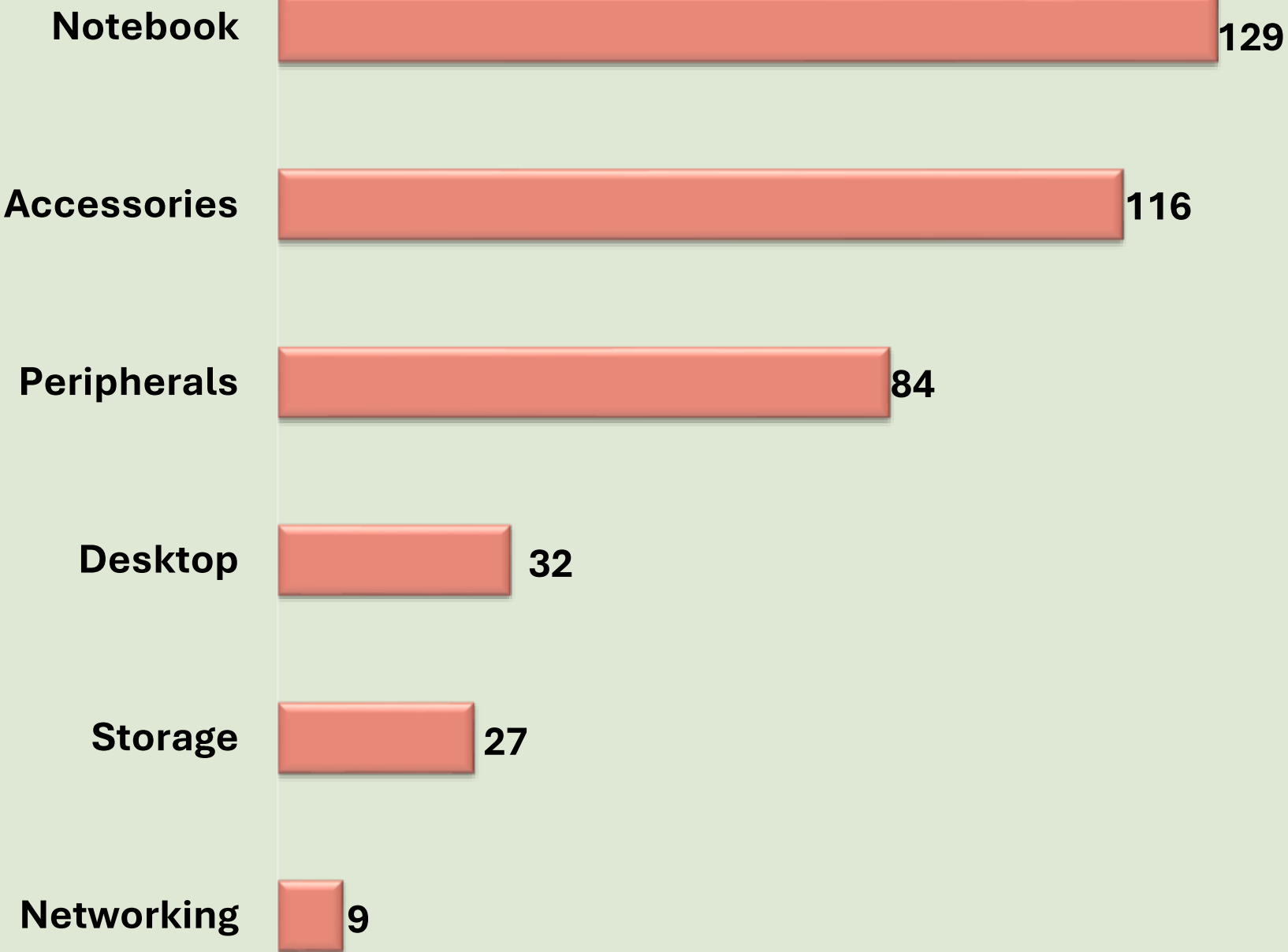
OUTPUT



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



INSIGHT



- AtliQ has a strong product range in Notebooks, Accessories, and Peripherals and are popular among customers.
- However, the Desktop, Networking, and Storage segments have fewer products, so focusing on these areas by introducing new products or special offers could help grow the business and meet more customer needs.

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

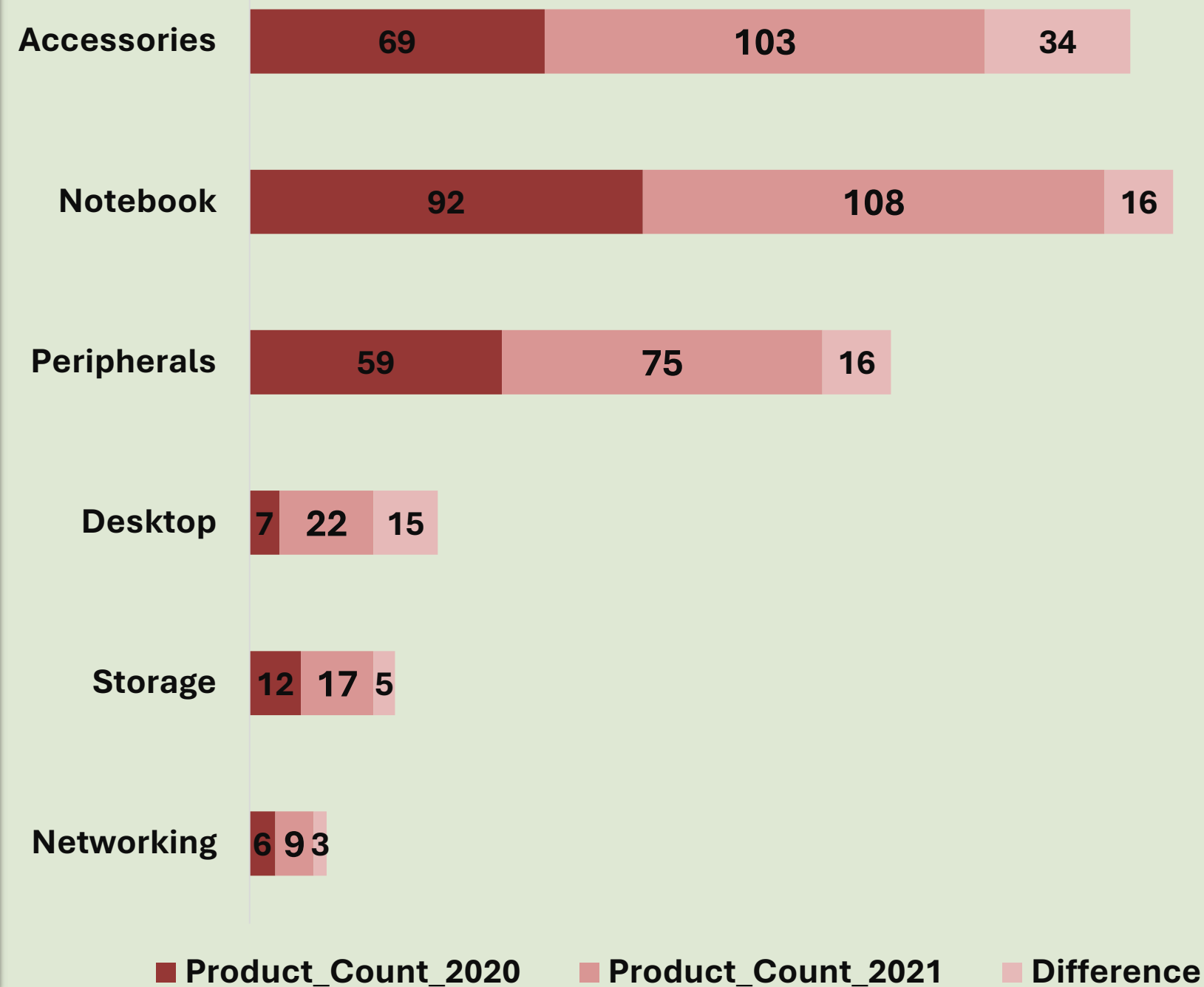
OUTPUT



segment	product_count_2020	product_count_2021	difference
Accessories	69	103	34
Notebook	92	108	16
Peripherals	59	75	16
Desktop	7	22	15
Storage	12	17	5
Networking	6	9	3



INSIGHT



- Between 2020 and 2021, the Accessories segment had the highest increase in unique products with a 49.28% growth (from 69 to 103 products), followed by Desktop with a 214.29% rise and Peripherals with a 27.12% increase
- Notebook and Storage grew by 17.39% and 41.67% respectively, while Networking had a 50% increase but from a smaller base

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
A6120110206	AQ HOME Allin1 Gen 2	240.5364
A2118150101	AQ Master wired x1 Ms	0.8920



AQ HOME Allin1 Gen 2

\$240.53

Highest Manufacturing cost



AQ Master wired x1 Ms

\$0.892

Lowest Manufacturing cost

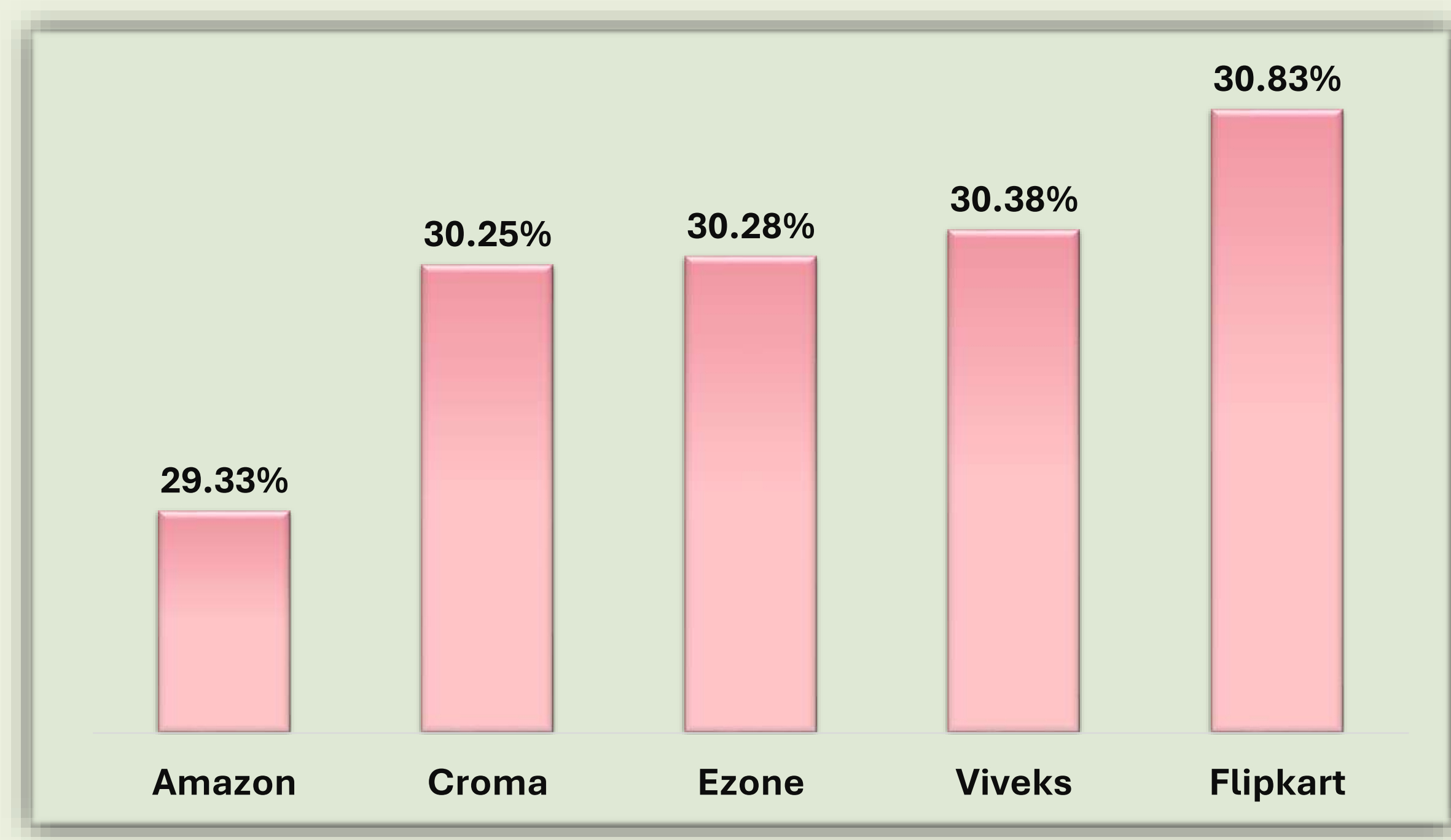
REQUEST -6

- **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**

OUTPUT



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



- Flipkart offers the highest average discount at 30.83%, while Amazon gives the lowest at 29.33%. Other customers like Croma, Ezone, and Viveks have similar discount levels, around 30%.

REQUEST -7

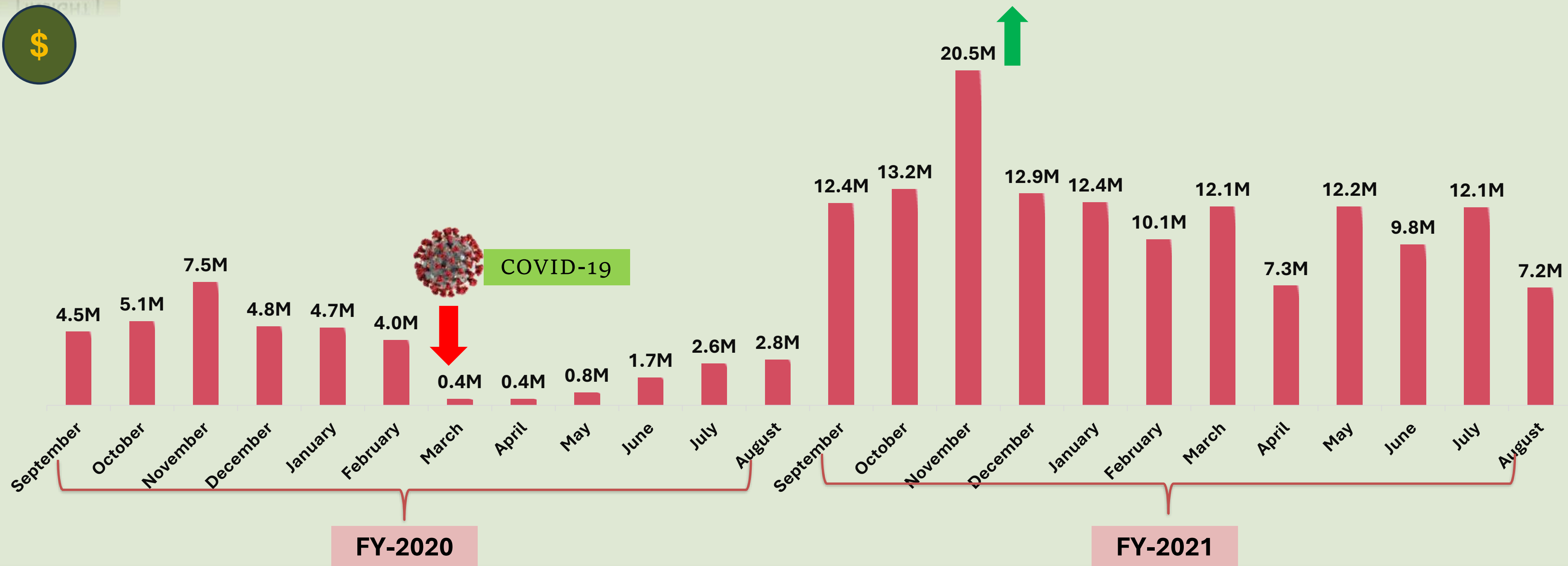
- Get the complete report of the Gross sales amount for the customer “Atliq Exclusive” for each month . This analysis helps to get an idea of low and high-performing months and take strategic decisions. The final report contains these columns: Month Year Gross sales Amount

OUTPUT



month_name	fiscal_year	Gross_sales_Amount
September	2020	4496259.6724
October	2020	5135902.3467
November	2020	7522892.5608
December	2020	4830404.7285
January	2020	4740600.1605
February	2020	3996227.7661
March	2020	378770.9700
April	2020	395035.3535
May	2020	783813.4238
June	2020	1695216.6008
July	2020	2551159.1584
August	2020	2786648.2601

month_name	fiscal_year	Gross_sales_Amount
September	2021	12353509.7938
October	2021	13218636.1966
November	2021	20464999.0997
December	2021	12944659.6509
January	2021	12399392.9788
February	2021	10129735.5675
March	2021	12144061.2501
April	2021	7311999.9547
May	2021	12150225.0139
June	2021	9824521.0110
July	2021	12092346.3245
August	2021	7178707.5902



- Sales dropped to their lowest in March, April, and May FY-2020, likely because of the COVID-19 pandemic. Things began to improve from June onward. The peak for FY-2021 came in November, with sales hitting around 20.5 million.
- In FY-2021, overall sales increased notably compared to the previous year.

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

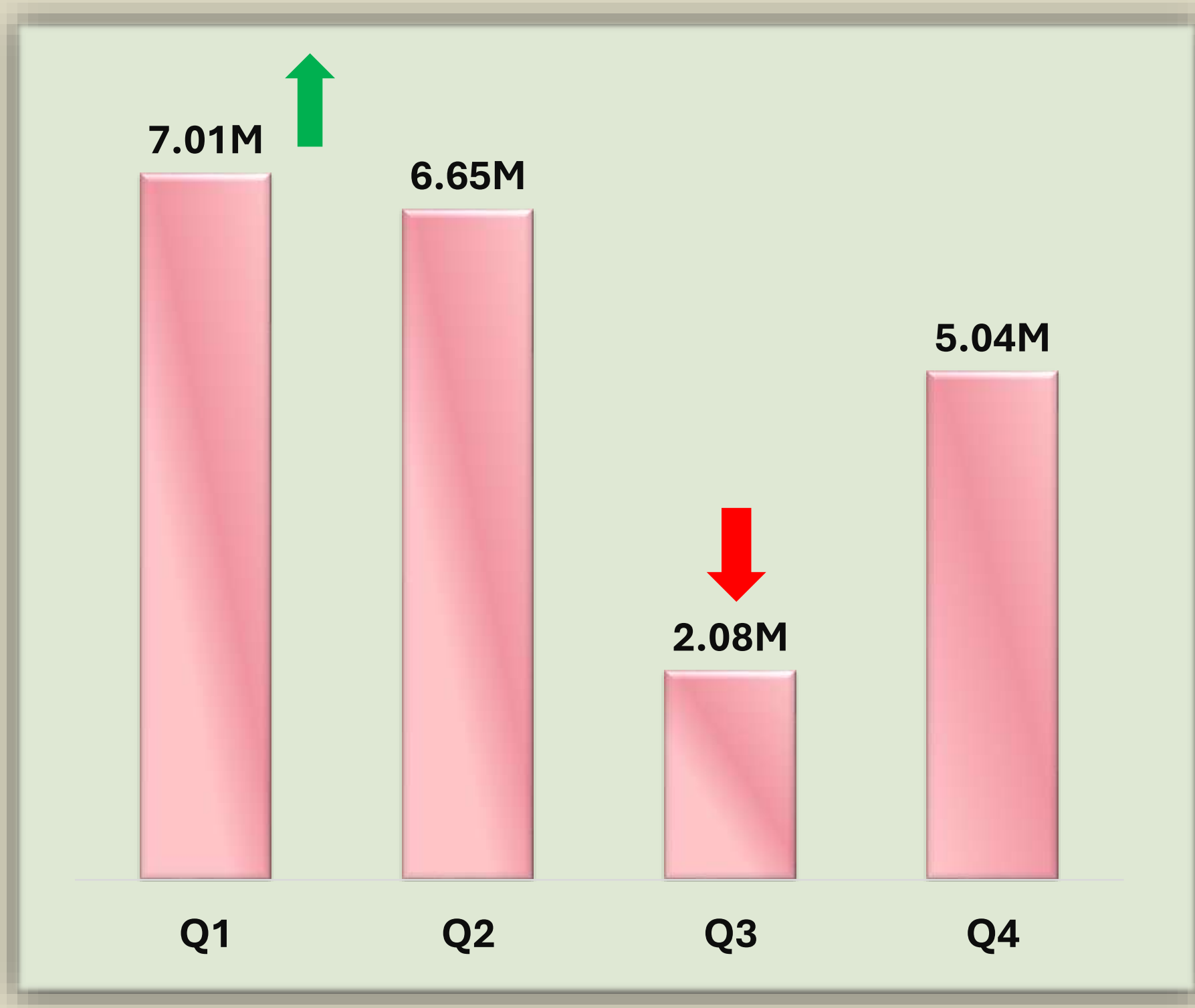
OUTPUT



fiscal_quarter	total_sold_quantity
Q1	7005619
Q2	6649642
Q3	2075087
Q4	5042541



INSIGHT



- AtliQ saw strong sales at the start of 2020, with about 7 million units sold in the Q1(September, October, November)
- However, sales took a sharp dip during March to May (Q3), likely due to the effects of the COVID-19 pandemic, which brought tough market conditions and shifts in how customers were buying.

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	percentage
Retailer	1219.08	73.23385242%
Direct	257.53	15.47061232%
Distributor	188.03	11.29553542%



Retailer



\$1219.08M
(73%)

Direct

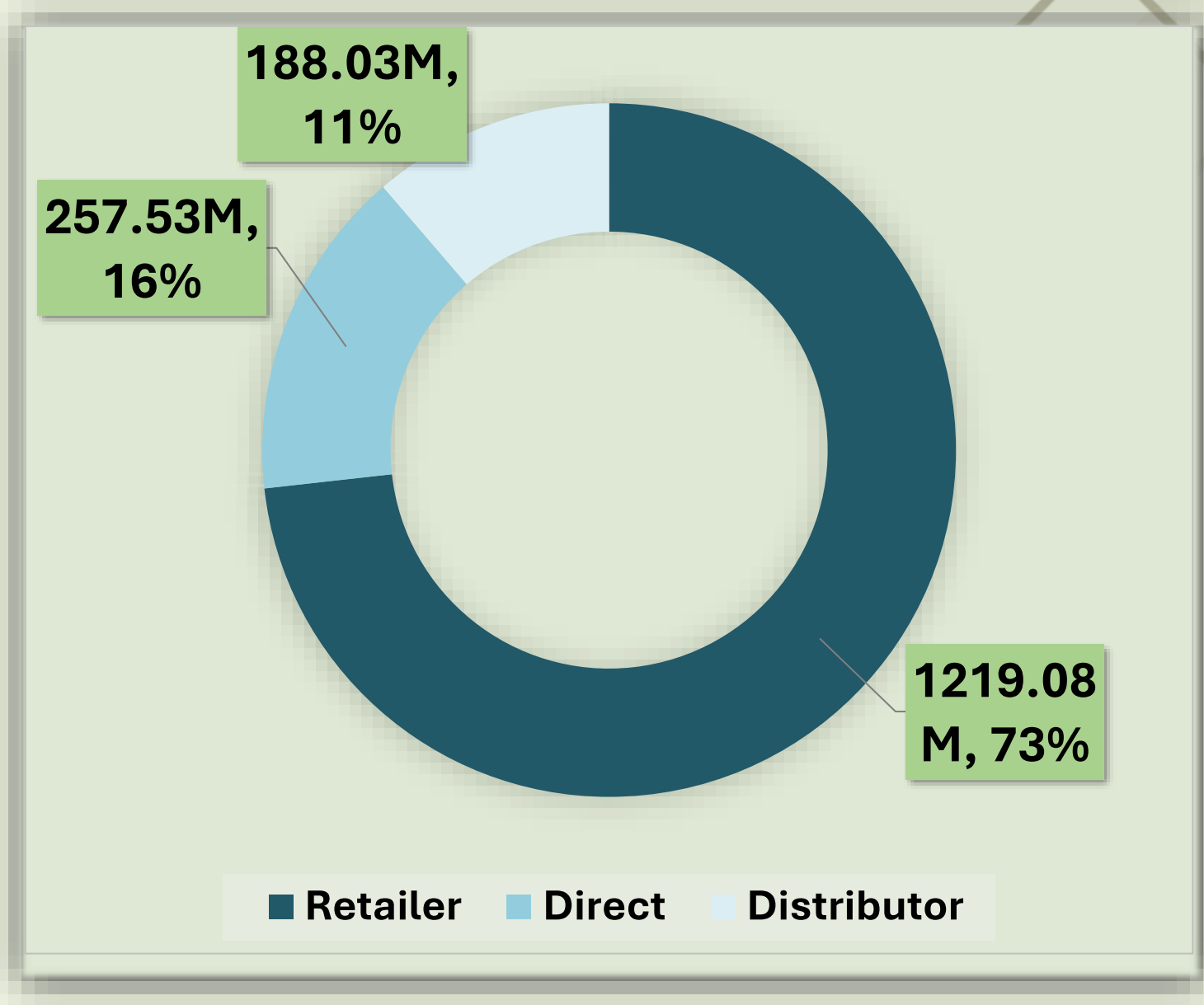


\$257.53M
(16%)

Distributor



\$188.03M
(11%)



❖ Retailers are the main source of AtliQ's sales, contributing 73.22% of the total. In comparison, direct and distributor channels together make up only 26.79%.

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, produc, total_sold_quantity, rank_order

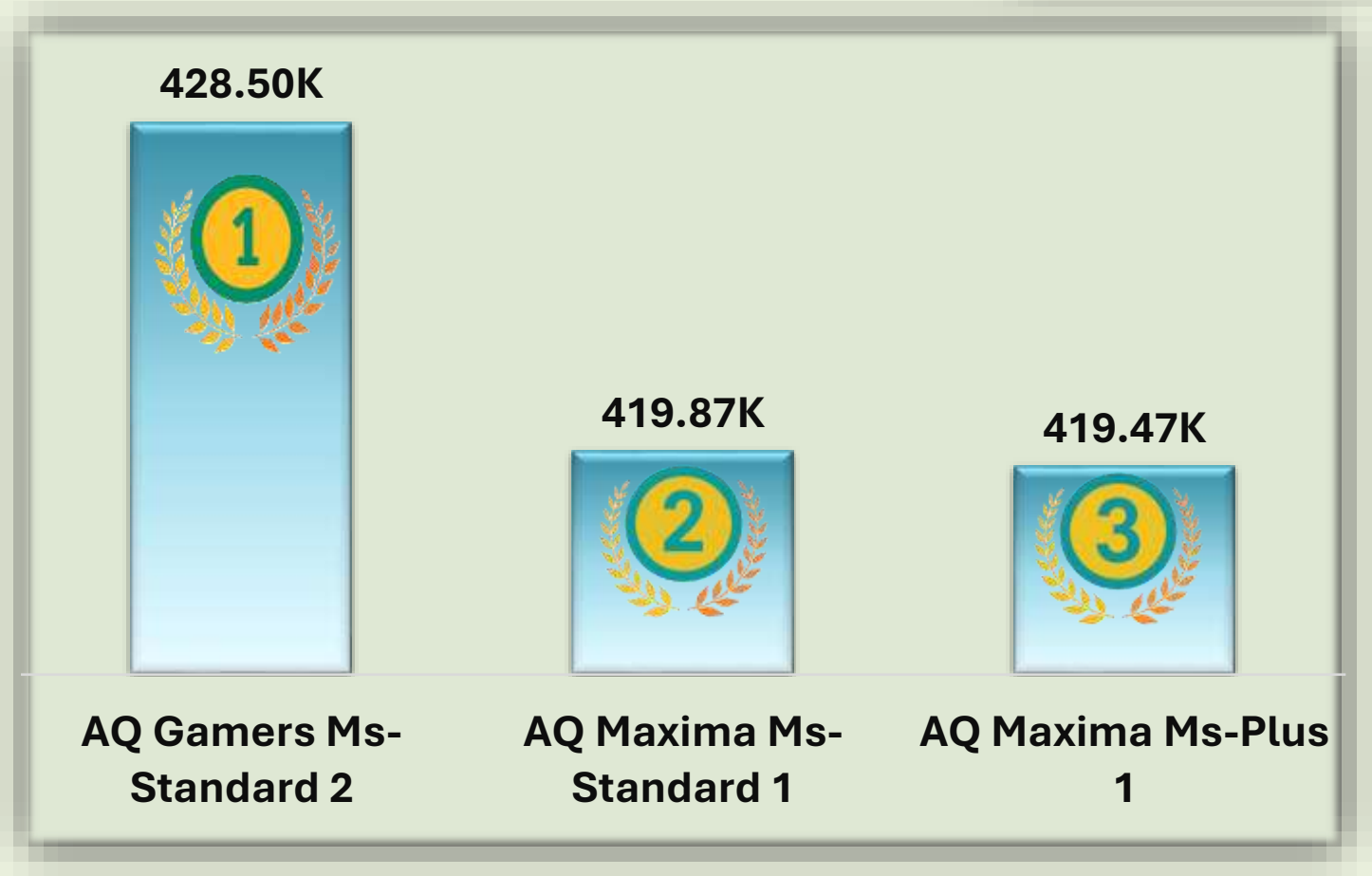
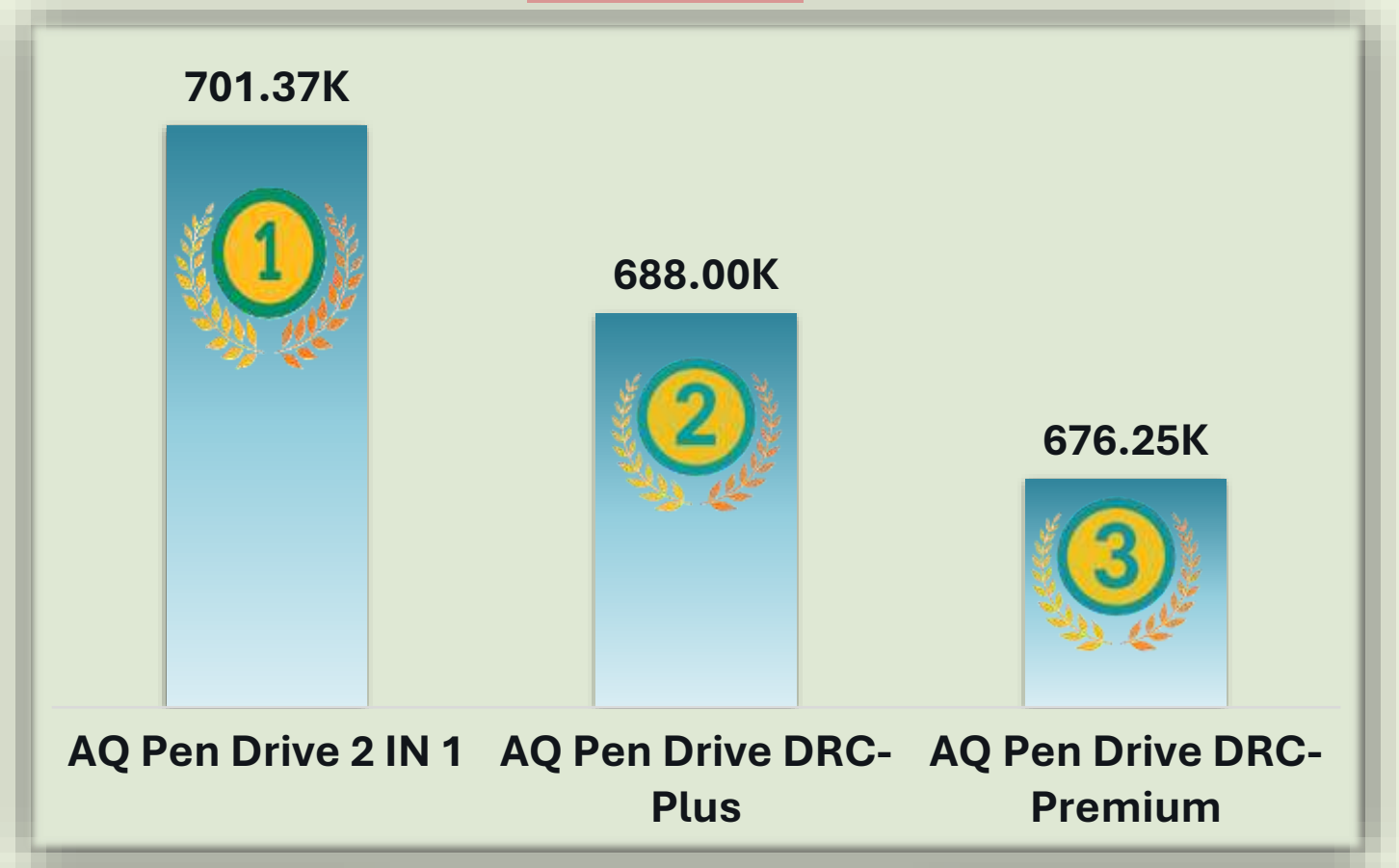
OUTPUT



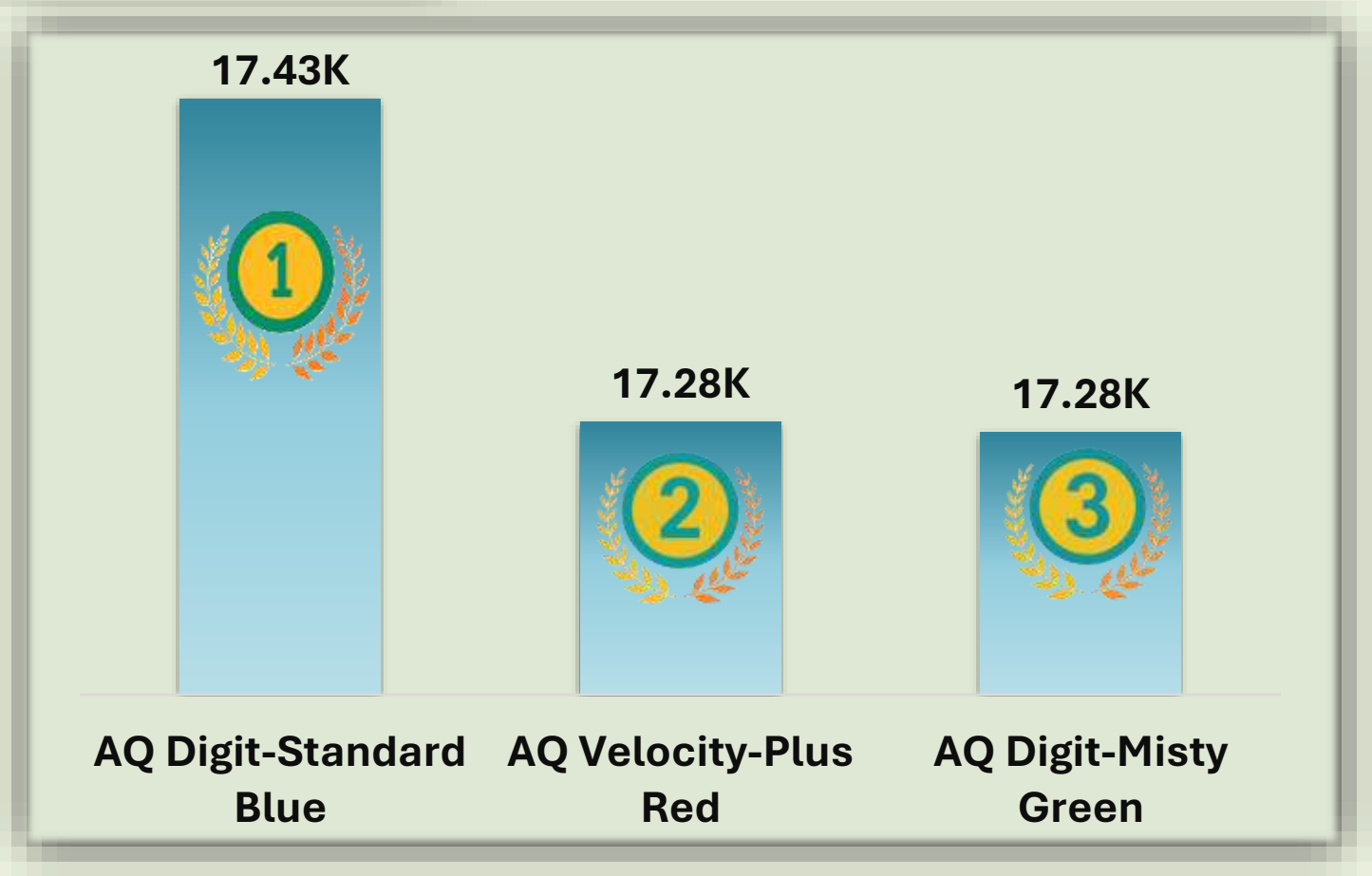
division	product_code	product	total_sold_quantity	rank_order
N & S	A6720160103	AQ Pen Drive 2 IN 1	701373	1
N & S	A6818160202	AQ Pen Drive DRC	688003	2
N & S	A6819160203	AQ Pen Drive DRC	676245	3
P & A	A2319150302	AQ Gamers Ms	428498	1
P & A	A2520150501	AQ Maxima Ms	419865	2
P & A	A2520150504	AQ Maxima Ms	419471	3
PC	A4218110202	AQ Digit	17434	1
PC	A4319110306	AQ Velocity	17280	2
PC	A4218110208	AQ Digit	17275	3



N & S



P & A



PC



- **Pen drives lead sales in the N & S division, taking all top three spots — a clear sign of strong demand.**
- **P & A sold the most units overall, but its top products differ, with only the mouse making it to the top — unlike N & S.**
- **The PC division's top sellers consist entirely of personal laptops**

**YIP YIP
HOORAY**



THANK YOU

K Neeraja