

Ad-Hoc Insights

Consumer Goods

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Objectives



- ❑ **AtliQ Hardware** (fictitious corporation) is one of the major computer hardware manufacturers in India, with a strong presence in other nations.
- ❑ Nevertheless , the management did note that they **do not have sufficient insights** to make prompt, wise, and data-informed judgments.
- ❑ Plan to **expand** the data analytics team by adding junior data analysts.
- ❑ To assess candidates, Data analytics director, Tony Sharma plans to conduct a SQL challenge to evaluate both tech and soft skills.
- ❑ The company seeks insights for **10 Ad Hoc** requests.

Company Details

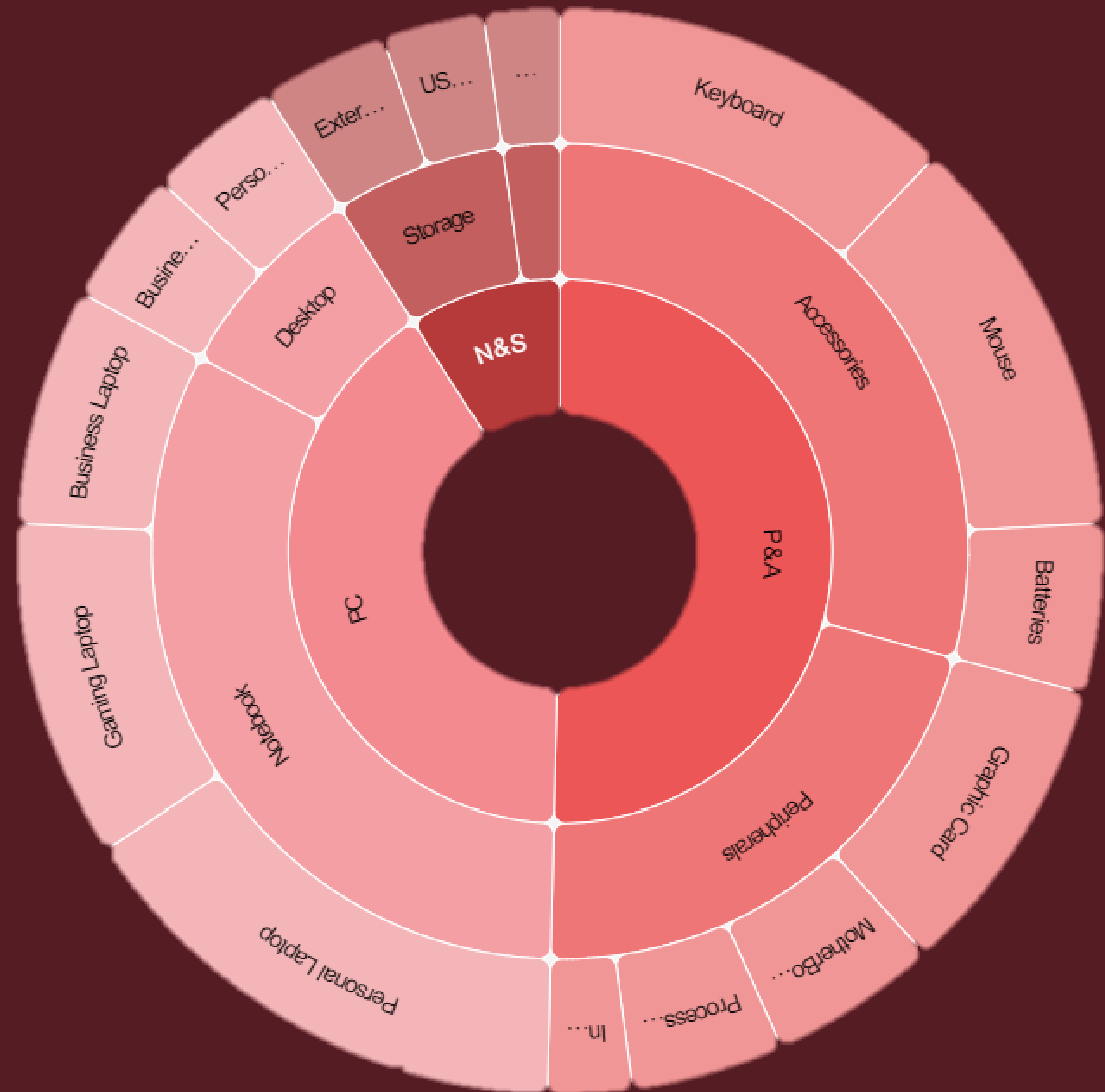
Fiscal Year

September 2019 – August 2020

FY 2020

September 2020 – August 2021

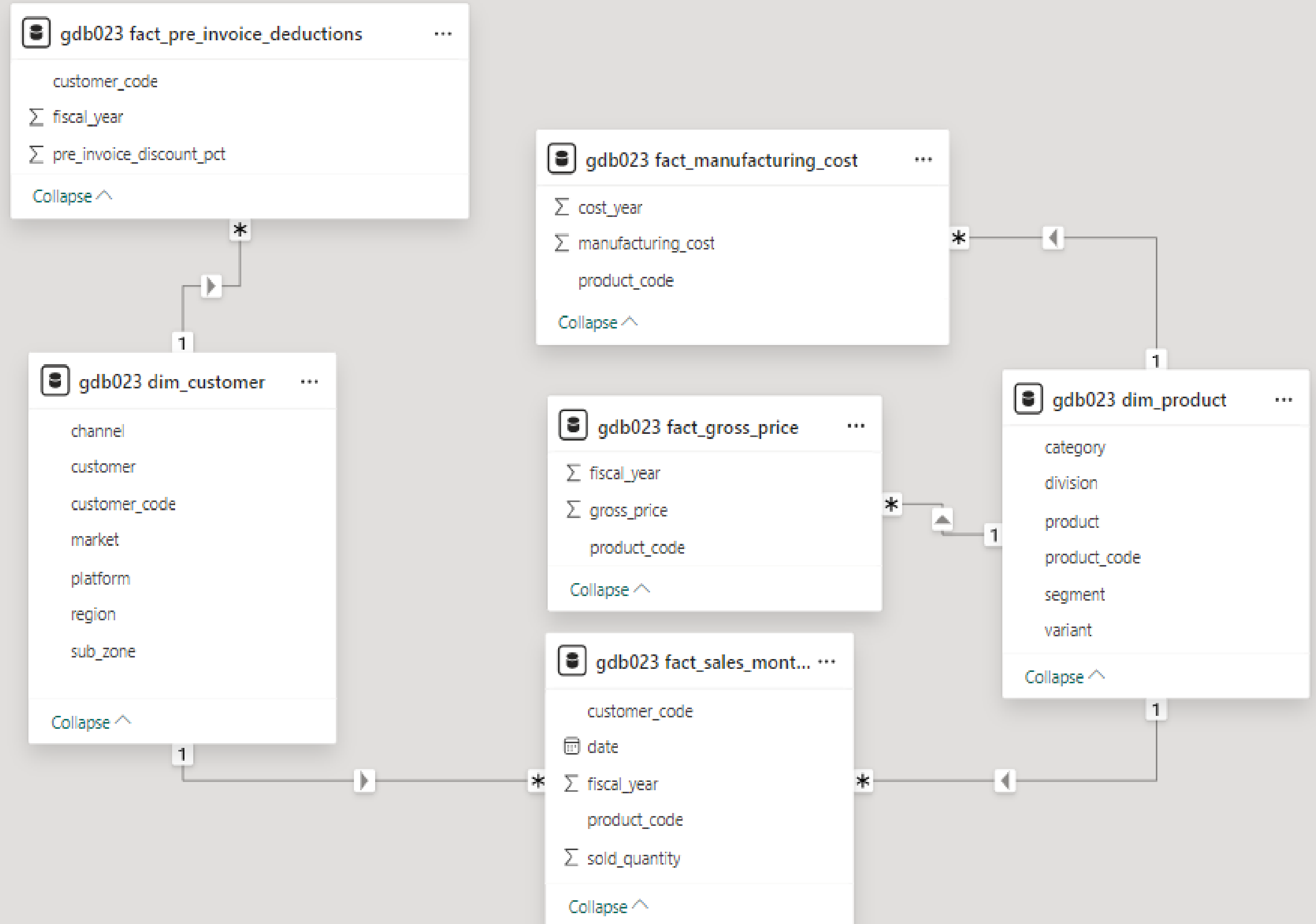
FY 2021



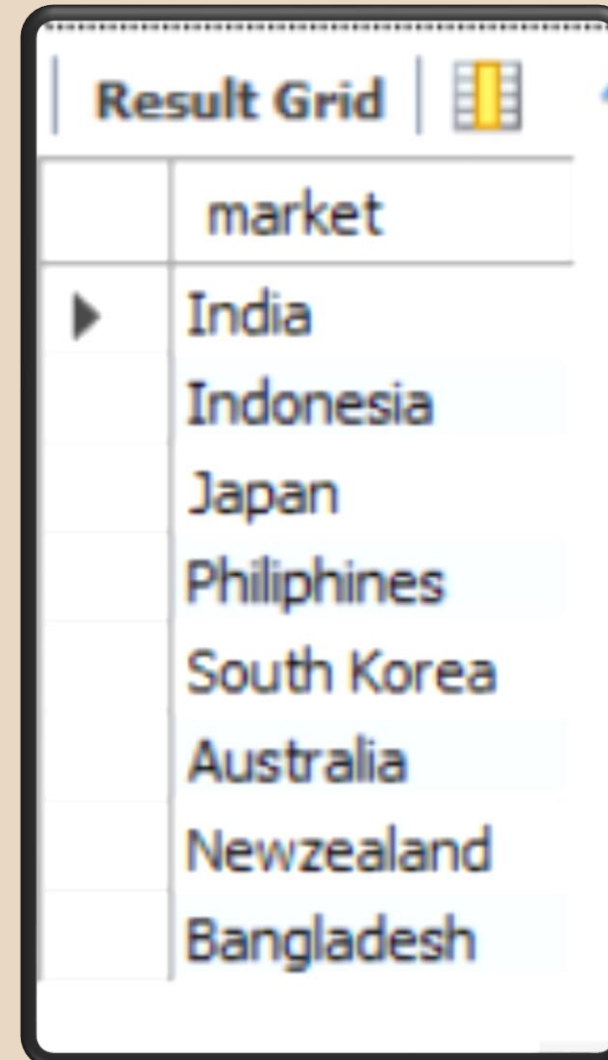
AtliQ Markets



Data Model



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



	market
▶	India
	Indonesia
	Japan
	Philippines
	South Korea
	Australia
	Newzealand
	Bangladesh

Insights



- AtliQ Hardware's expanded their 'AtliQ Exclusive' customers in 8 major markets in the APAC Region.
- AtliQ Hardware's have their business in all sub-zones of APAC region like India, ROA and **ANZ**.





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

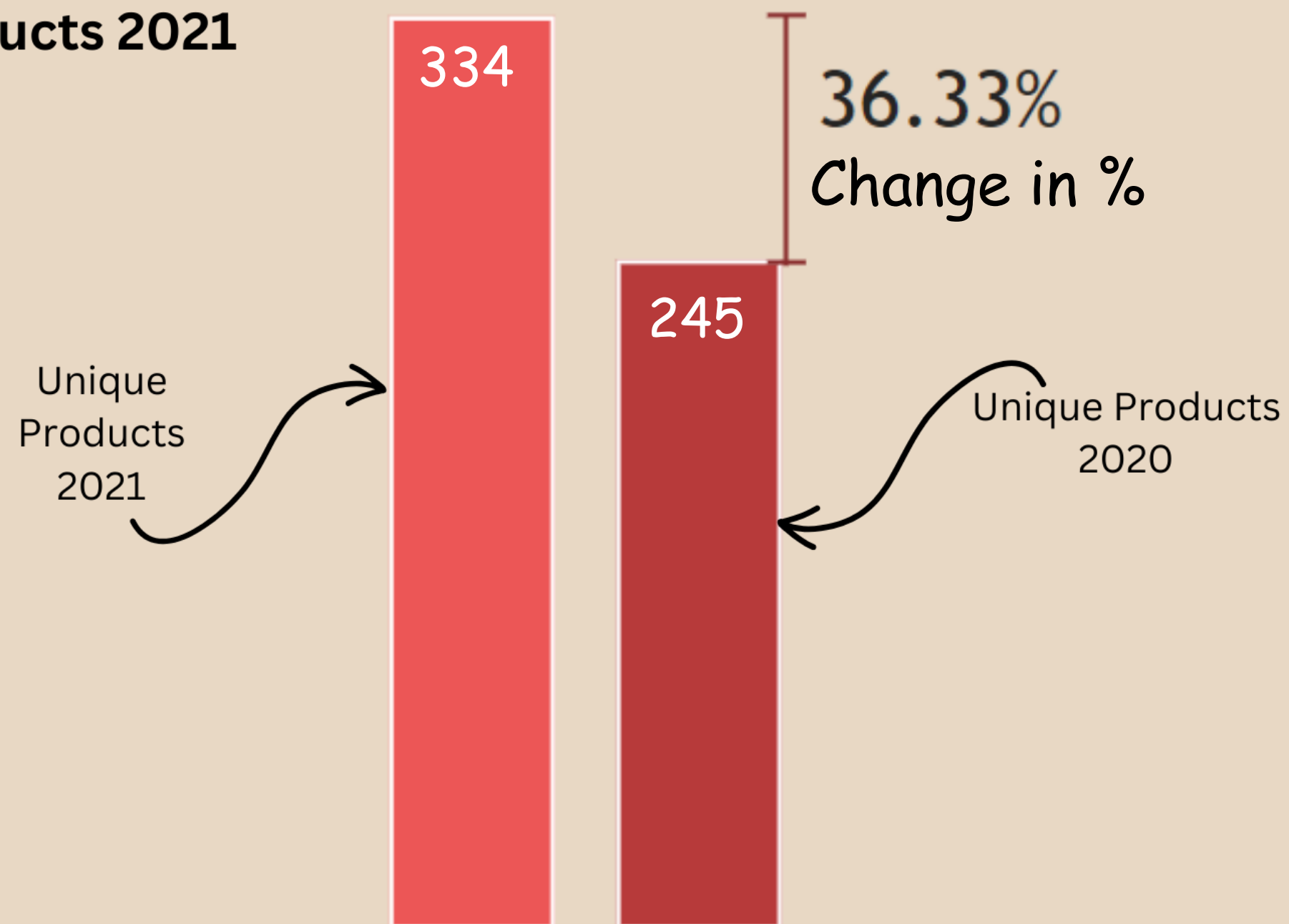
Result Grid  Filter Rows: <input type="text"/> Export:  Wrap Cell Content:			
	unique_products_2020	unique_products_2021	percentage_change
▶	245	334	36.33



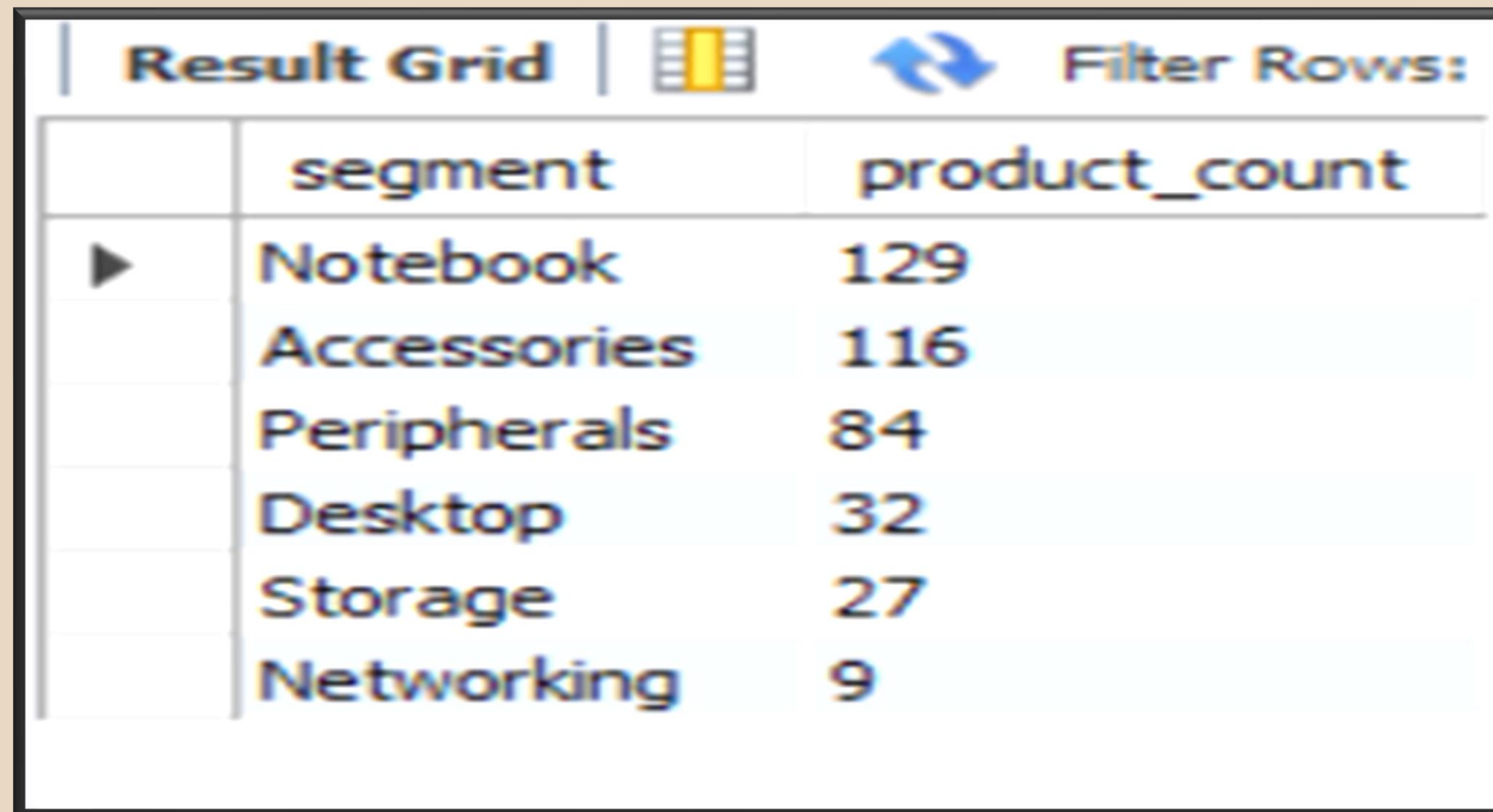
Insights

- 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.

Unique Products 2020 Vs Unique Products 2021



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`



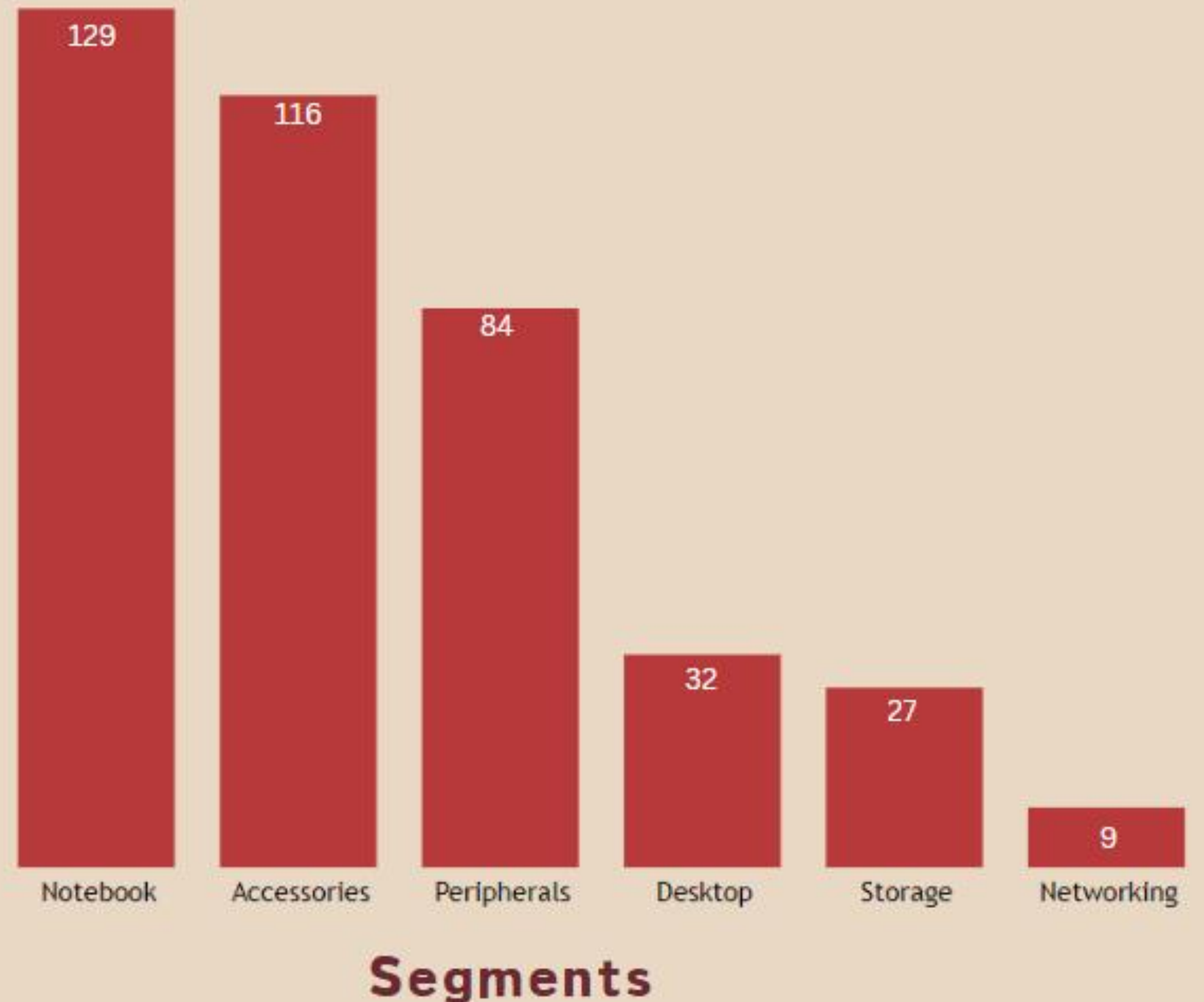
The image shows a 'Result Grid' interface. At the top, there is a title 'Result Grid' followed by a yellow bar icon and a blue double-headed arrow icon with the text 'Filter Rows:'. Below this is a table with two columns: 'segment' and 'product_count'. The table contains six rows of data, sorted in descending order of product count. The first row is highlighted with a dark blue background and a play button icon in the first column. The other rows have a light blue background.

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

Insights

- Segments: notebooks, accessories, and peripherals are showing significant manufacturing growth as compared to desktops, storage, and networking.
- Notebooks, accessories, and peripherals constitute 83% of the total manufactured product.

No of Unique Products By Segment





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`

Result Grid				
		Filter Rows:		
		Export:		
		Wrap Cell Content:		
	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

Insights

- Segment wise **Accessories** had the **largest** production of products.
- Production growth in **Storage** and **networking** are experiencing slower than other segments.

Unique product difference per Segment from 2020 to 2021

Segment	Unique Product 2020	Unique Product 2021	Differnece
Accessories	69	103	↑ 34
Notebook	92	108	↑ 16
Peripherals	59	75	↑ 16
Desktop	7	22	↑ 15
Storage	12	17	↑ 5
Networking	6	9	↑ 3



5. Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields, `product_code`, `product`, `manufacturing_cost`

Result Grid				Filter Rows:		Export:	Wrap Cell Co
	product	product_code	manufacturing_cost				
▶	AQ HOME Allin1 Gen 2	A6120110206	240.5364				
	AQ Master wired x1 Ms	A2118150101	0.8920				

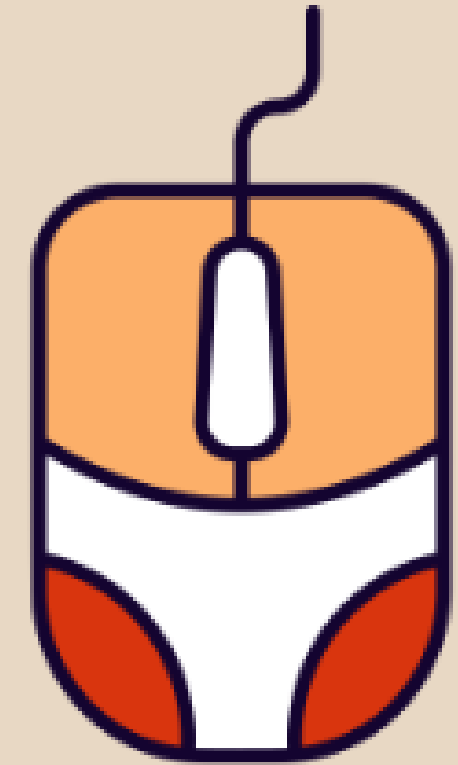
Insights

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



\$240.54

AQ HOME Allin1
Gen 2 (Plus 3)



\$0.89

AQ Master Wired
x1 Ms

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`

Result Grid				Filter Rows:	Export:
	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

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

Top 5 Indian Customers By Highest Avg Discount in 2021

Flipcart 30.83%

Viveks 30.38%


Ezone 30.28%

Croma 30.25%

Amazon 29.33%

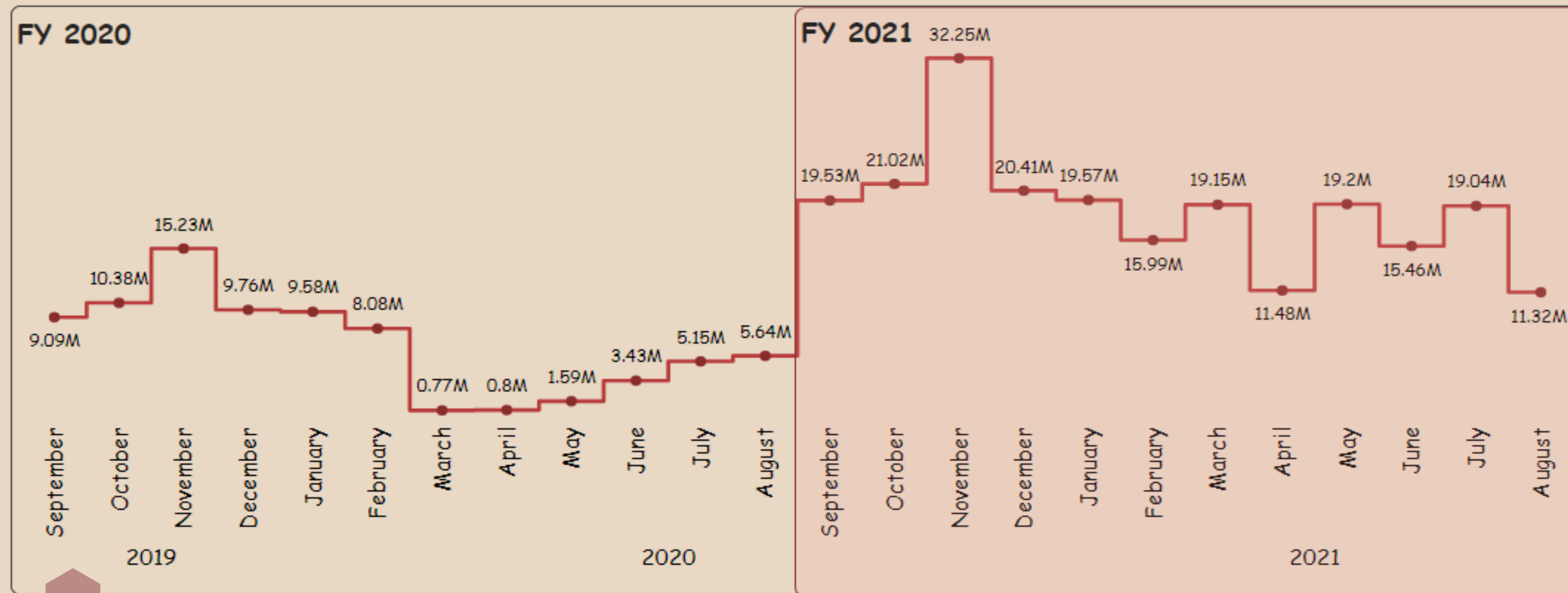


7. Get the complete report of the Gross sales amount for the customer “AtliQ Exclusive” for each month. This analysis helps to get an idea of low and high-performing months and take strategic decisions. The final report contains these columns : *Month, Year, Gross sales Amount*
customer_code, customer,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

Result Grid  Filter Rows: <input type="text"/>		
	month	Gross_sales_mln
▶	November 2020	32.25 M
	October 2020	21.02 M
	December 2020	20.41 M
	January 2021	19.57 M
	September 2020	19.53 M
	May 2021	19.20 M
	March 2021	19.15 M
	July 2021	19.04 M
	February 2021	15.99 M
	June 2021	15.46 M
	November 2019	15.23 M

April 2021	11.48 M
August 2021	11.32 M
October 2019	10.38 M
December 2019	9.76 M
January 2020	9.58 M
September 2019	9.09 M
February 2020	8.08 M
August 2020	5.64 M
July 2020	5.15 M
June 2020	3.43 M
May 2020	1.59 M
April 2020	0.80 M
March 2020	0.77 M

Gross Sales Amount for "AtliQ Exclusive" Customer



Insights

- In November 2020, AtliQ hardware experienced a remarkable achievement with sales reaching an all-time high. However, from March to July 2020 proved to be a challenging period, with sales falling significantly below expectations. The ongoing global pandemic, which has greatly affected economies and consumer behavior, may have played a role in this fluctuation in sales.



8. In which quarter of company year(sept to Aug) 2020, got the maximum total_sold_quantity?

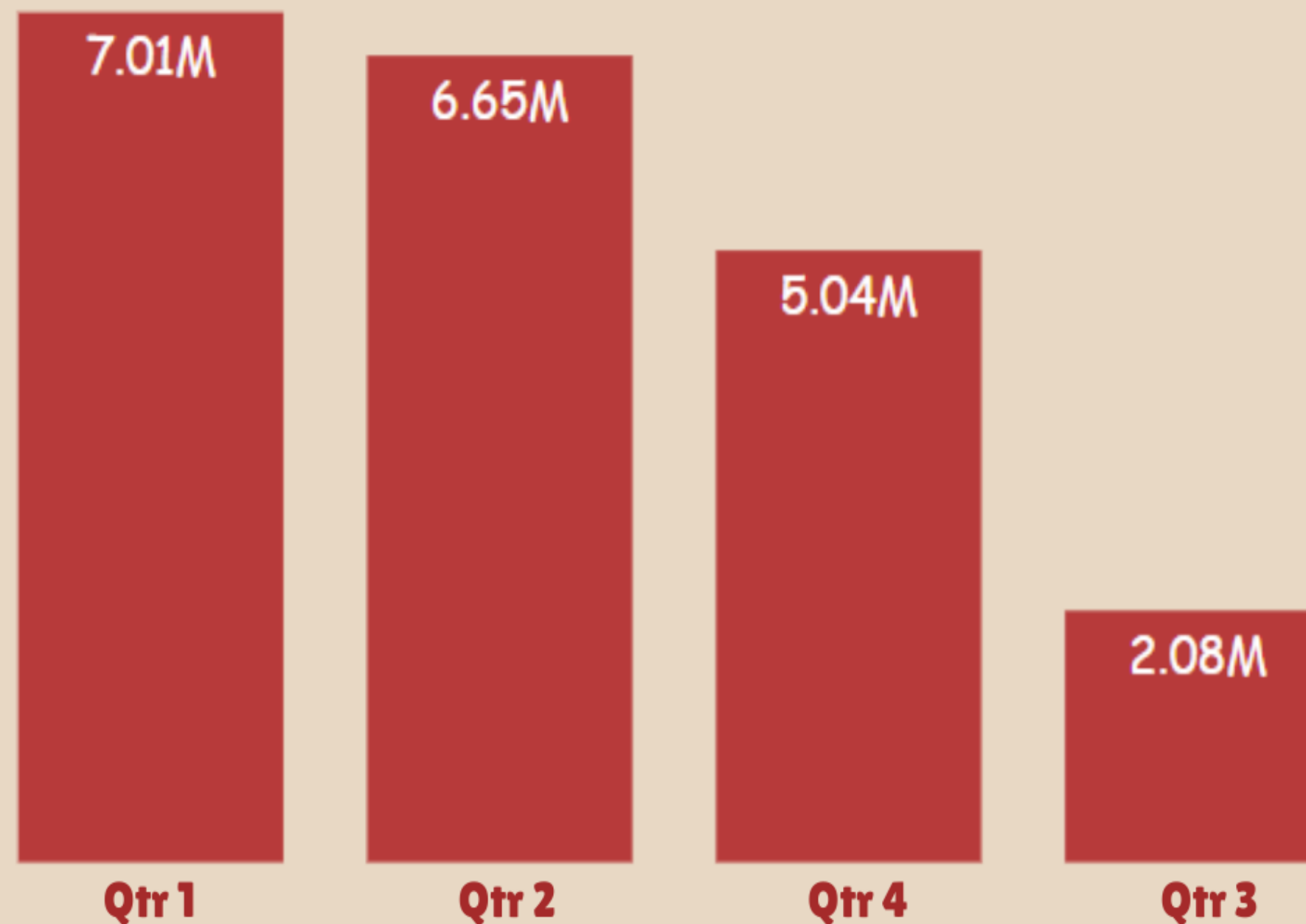
The final output contains these fields sorted by the `total_sold_quantity`, `Quarter`,
`total_sold_quantity`

Result Grid			Filter Rows:	
	Quarters	total_sold_quantity		
▶	1	7005619		
	2	6649642		
	4	5042541		
	3	2075087		

Insights

- Quarter1 of FY2020 saw the most units sold overall while Quarter3 had the fewest.
- Quarter1 accounts for approximately 34% of the total sold quantity for FY2020.

Which quarter has the highest sold quantity for year 2020?




Sept to Nov → Qtr 1

Dec to Feb → Qtr 2

Mar to May → Qtr 3

Jun to Aug → Qtr 4

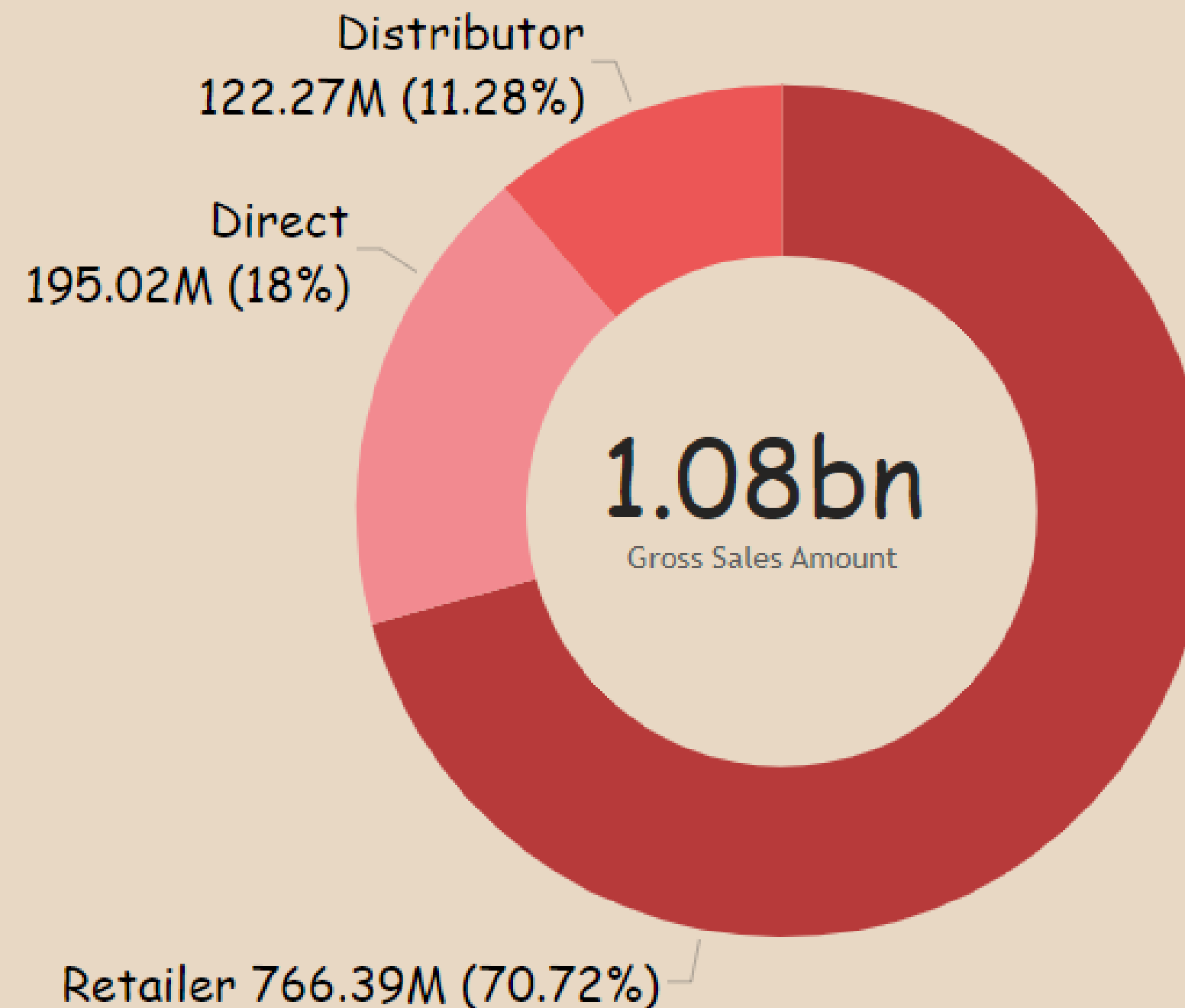
9. Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution? The final output contains these fields, `channel, gross_sales_mln, percentage`

Result Grid  Filter Rows: <input type="text"/>			
	channel	Sales_Millions	percentage
▶	Retailer	1924.17 M	73.22 %
	Direct	406.69 M	15.48 %
	Distributor	297.18 M	11.31 %




Insights

- "Retailer" channel helped bring maximum sales to the company with **73.22%** as the contribution percentage.
- Channel: "Distributor" makes the least contribution at a percentage of **11.31%**

Gross Sales & Contribution percentages By Channels for 2021

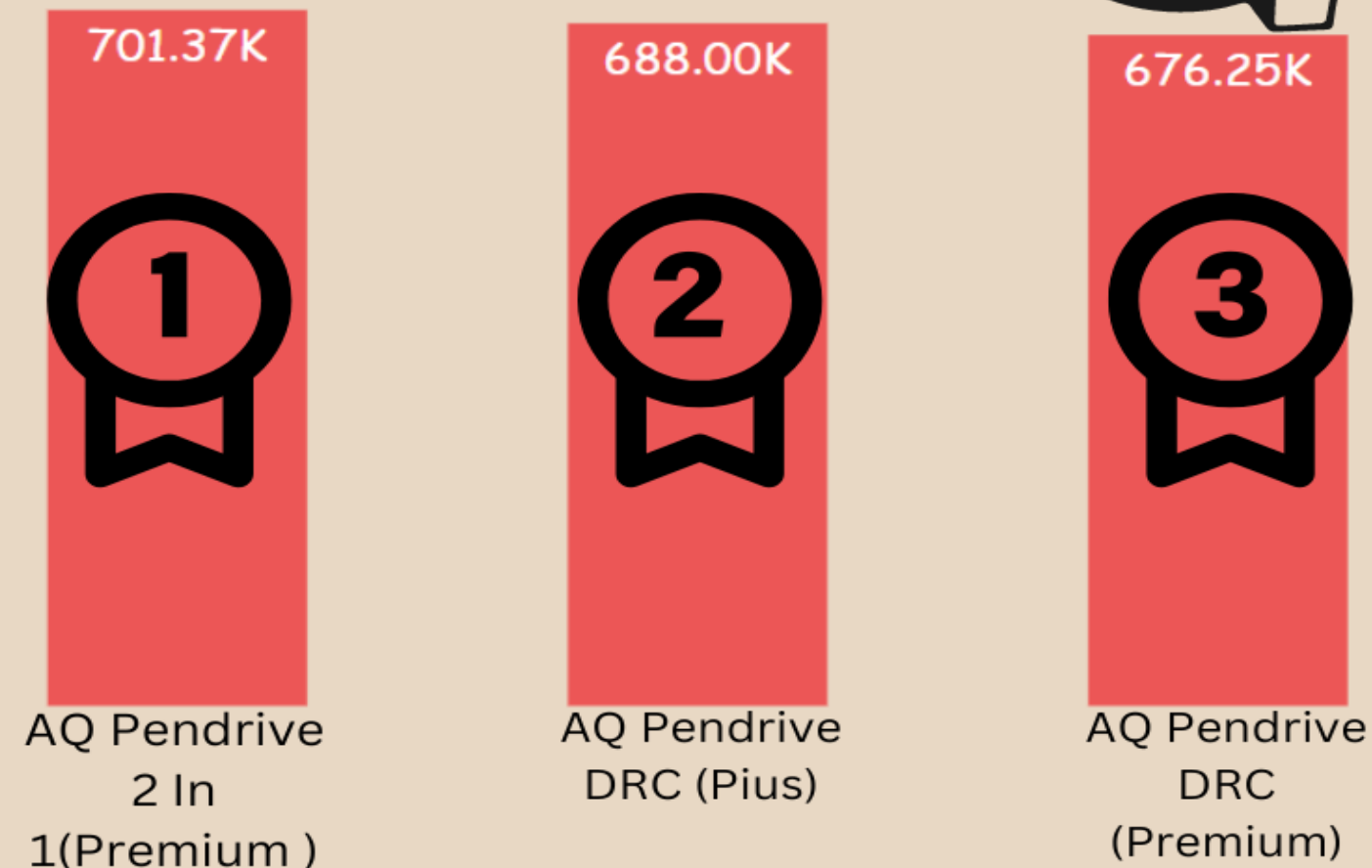
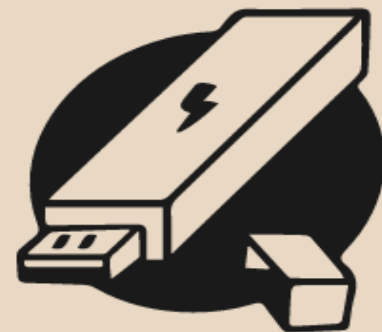


10. Get the Top 3 products in each division that have a high total_sold_quantity in the fy 2021? The final output contains these fields, `division`, `product_code`, `product`, `total_sold_quantity`, `rank_order`

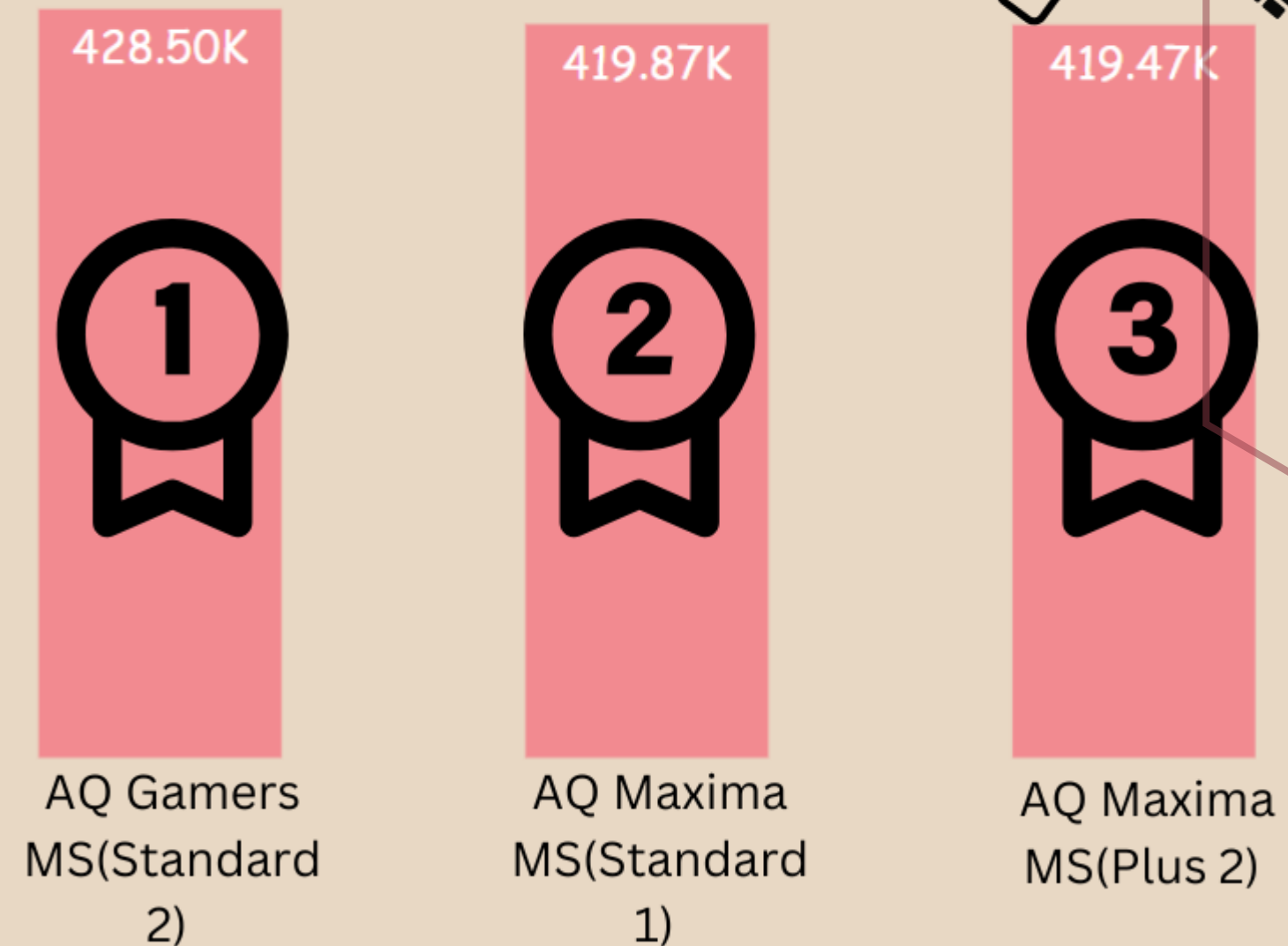
Result Grid  Filter Rows: <input type="text"/> Export:  Wrap Cell Content: 					
	division	product_code	product	Total_sold_quantity	Rank_Order
▶	N & S	A6720160103	AQ Pen Drive 2 IN 1	701373	1
	N & S	A6818160202	AQ Pen Drive DRC	688003	2
	N & S	A6819160203	AQ Pen Drive DRC	676245	3
	P & A	A2319150302	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

Top three products in each division by sold quantity

Division N&S



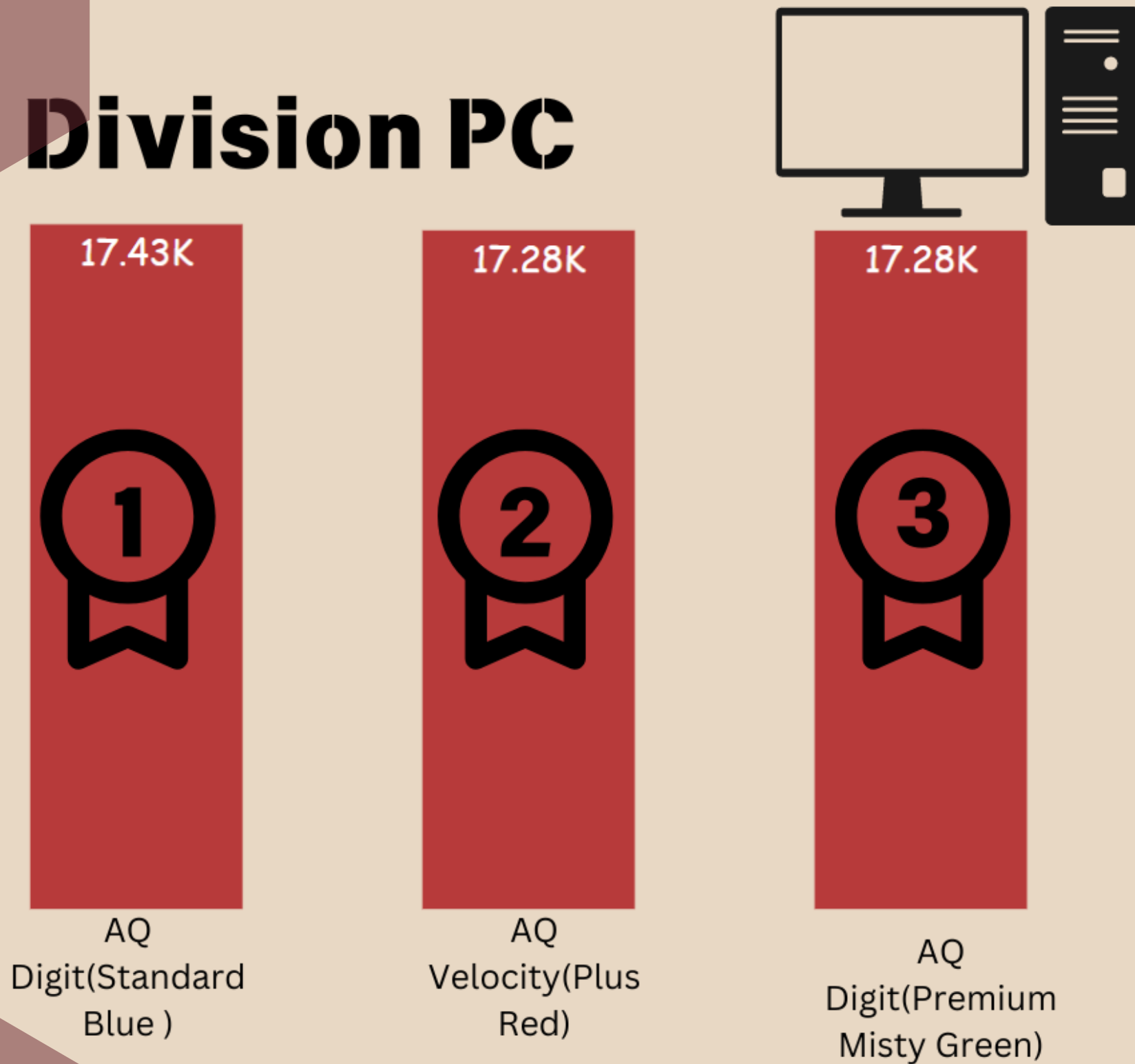
Division P&A



- The top 3 selling products in N&S were **pen drives**, which were around **7 lakh** in quantity.

- The top 3 selling products in P&A were **mouse**, which were around **4 lakh** in quantity.

Division PC



Top three products in each division by sold quantity

- The top 3 selling products in PC were **personal laptops**, which were around **17000** in quantity.

THANK YOU