

Consumer Goods Ad_hoc Insights

Created By

Ravi Kumar Verma



Objectives

Atliq Hardware is one of the leading computer hardware producers in India and is well-expanded in other countries too.

However, 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**.

Tony Sharma, their data analytics director wanted to hire someone who is good at both tech and soft skills

The company is looking for insights for 10 ad-hoc requests.

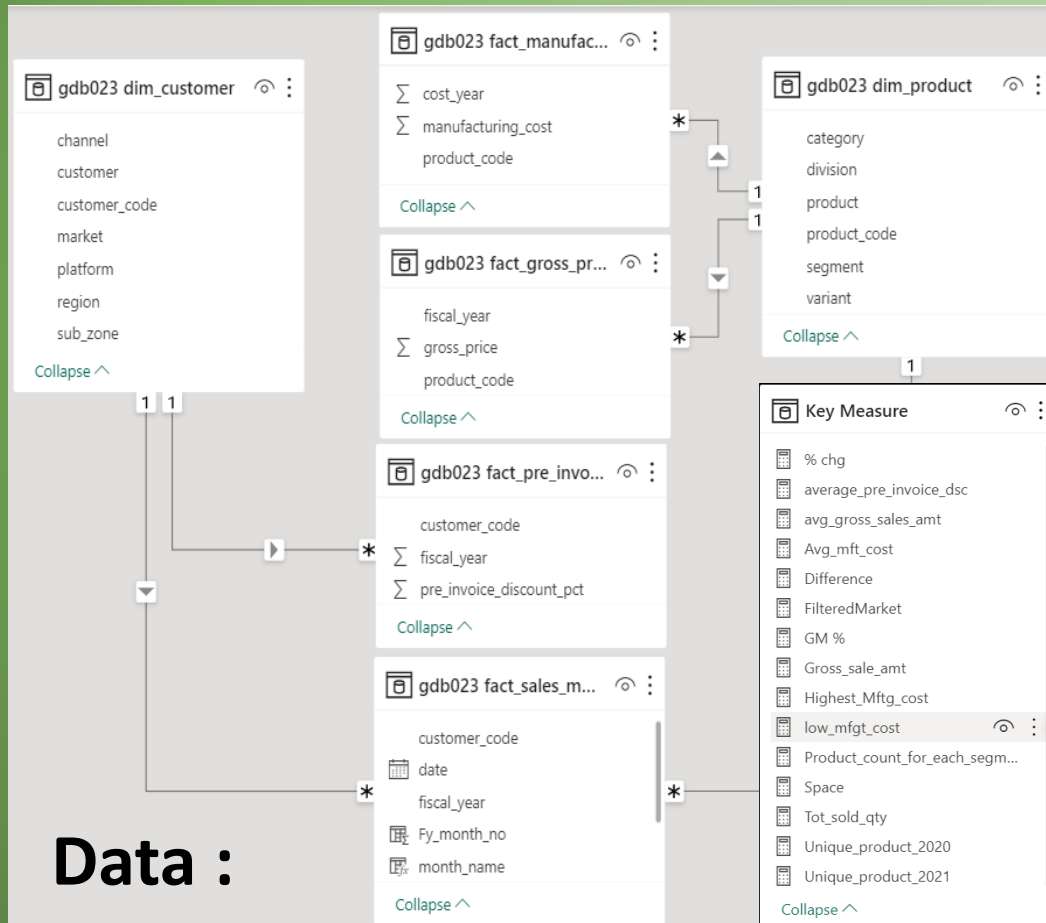
Company's Financial Year

September To August

Fiscal Year 2020 *Sep 2019 – Aug 2020*

Fiscal Year 2021 *Sep 2020 – Aug 2021*

Tool Used :



Data :

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

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_min
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
product_code

Requests

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



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_change

*Demand for Products Increased
by 36.33%*

	unique_product_2020	unique_product_2021	Percentage_change
►	245	334	36.33

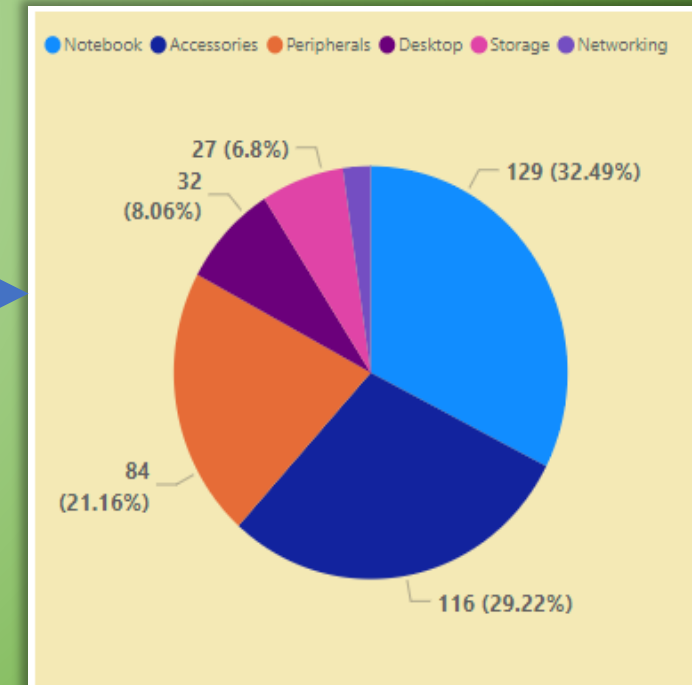
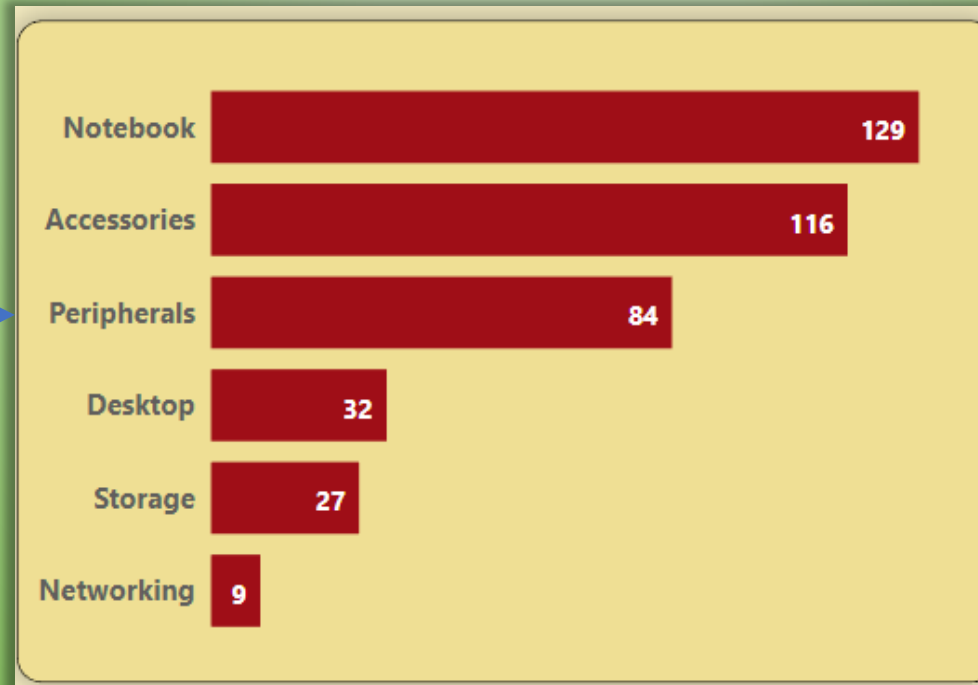


Provide a report with all the unique product counts for each segment and sort them in descending order of product counts.

The final output contains 2 fields, **segment**, and **product_count**

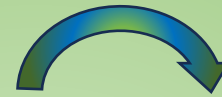
*Notebook, Accessories, and
Peripherals segments contributed
more the 80% of the total Products
manufactured.*

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



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**, and **Difference**.



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

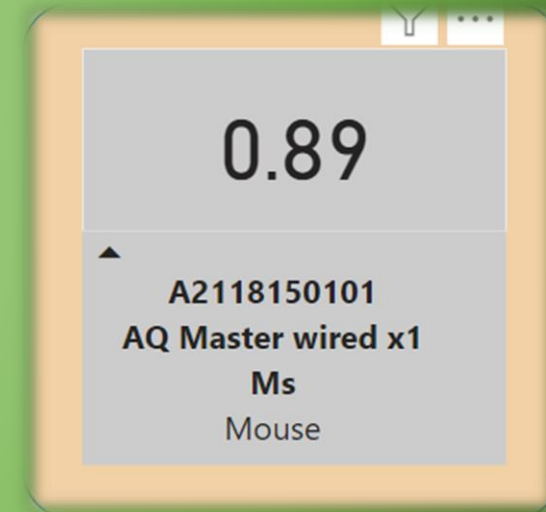
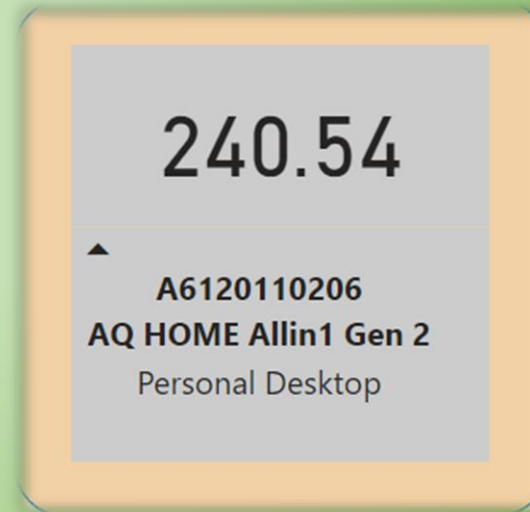
segment	Unq_prod_21	Unq_prod_20	Difference
Accessories	103	69	34 ↑
Notebook	108	92	16 ↑
Peripherals	75	59	16 ↑
Desktop	22	7	15 ↑
Storage	17	12	5 ↓
Networking	9	6	3 ↓

- * The Accessories Segment has the most Increase in unique products as compared to last year followed by Notebook.*
- * The Storage and Networking segment has little growth as compared to last year i.e. 2020*

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

AQ HOME Allin 1 Gen 2 has the highest Manufacturing Cost.

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

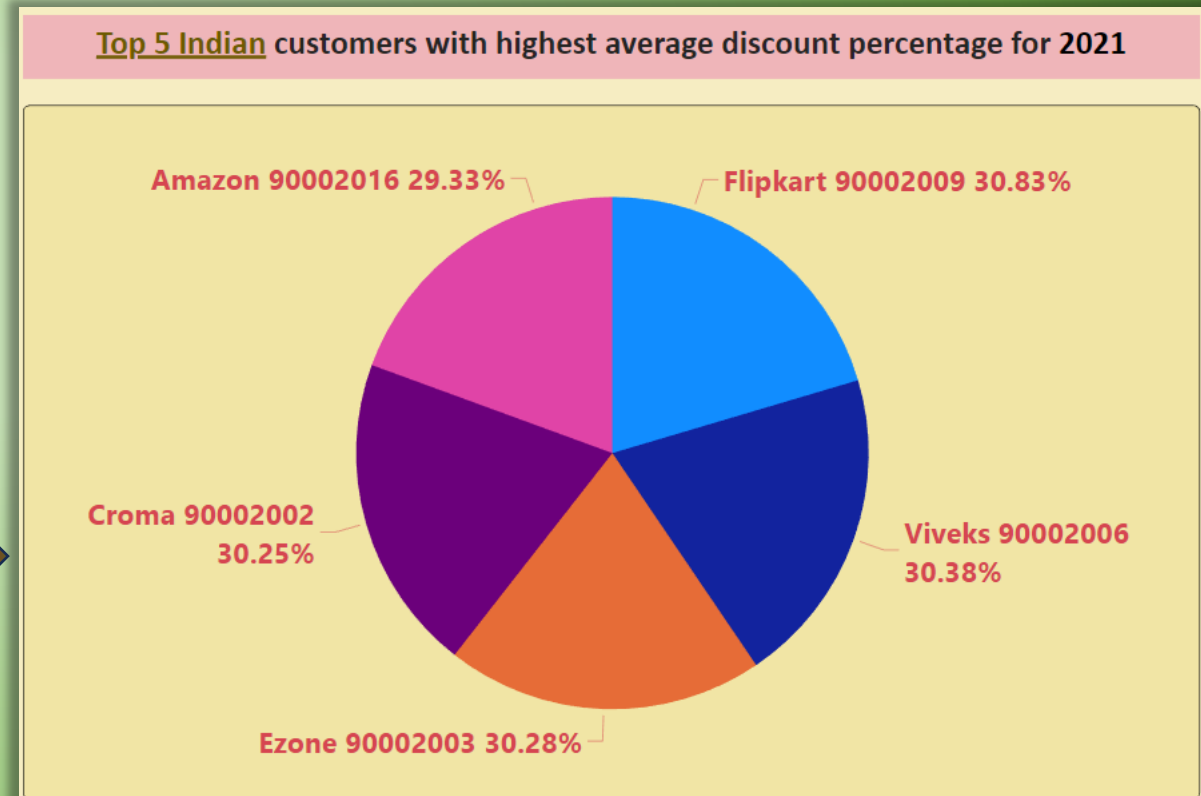
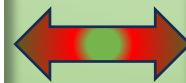


Generate a report which contains the **Top 5 customers** who received an average high **pre_invoice_discount_pct** for the fiscal year **2021** and in the **Indian market**.

The final output contains these fields,
Customer_code, Customer, Average_discount_percentage.

*The maximum Average discount percentage in the Indian market was given to **Flipkart***

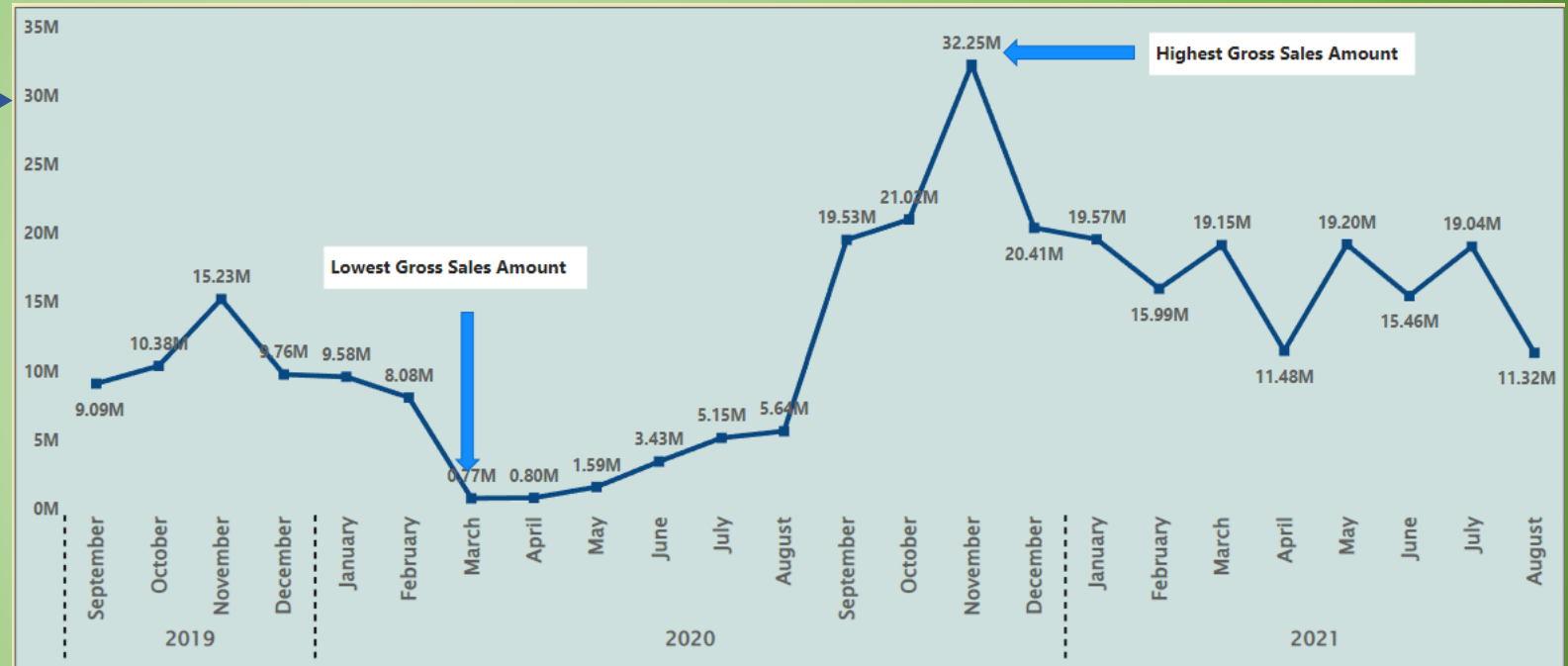
customer_code	customer_name	average_discount_percentage
90002009	Flipkart	0.3083
90002006	Viveks	0.3038
90002003	Ezone	0.3028
90002002	Croma	0.3025
90002016	Amazon	0.2933



Get the complete report of the Gross sales amount for the customer “Atliq Exclusive” for each month. The final report contains these columns: **Month, Year, and Gross Sales Amount.**

Gross sales amount by month for **Atliq Exclusive**

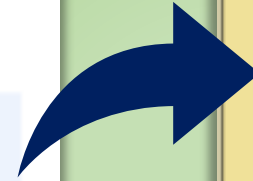
month	fiscal_year	gross_sales_amount
September	2020	9092670.34
October	2020	10378637.60
November	2020	15231894.97
December	2020	9755795.06
January	2020	9584951.94
February	2020	8083995.55
March	2020	766976.45
April	2020	800071.95
May	2020	1586964.48
June	2020	3429736.57
July	2020	5151815.40
August	2020	5638281.83
September	2021	19530271.30
October	2021	21016218.21
November	2021	32247289.79
December	2021	20409063.18
January	2021	19570701.71
February	2021	15986603.89
March	2021	19149624.92
April	2021	11483530.30
May	2021	19204309.41
June	2021	15457579.66
July	2021	19044968.82
August	2021	11324548.34



The high-performing month was Nov-2020 and the low-performing month was March- 2020

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

Quaters	tot_sold_qty
Q1	7005619
Q2	6649642
Q4	5042541
Q3	2075087



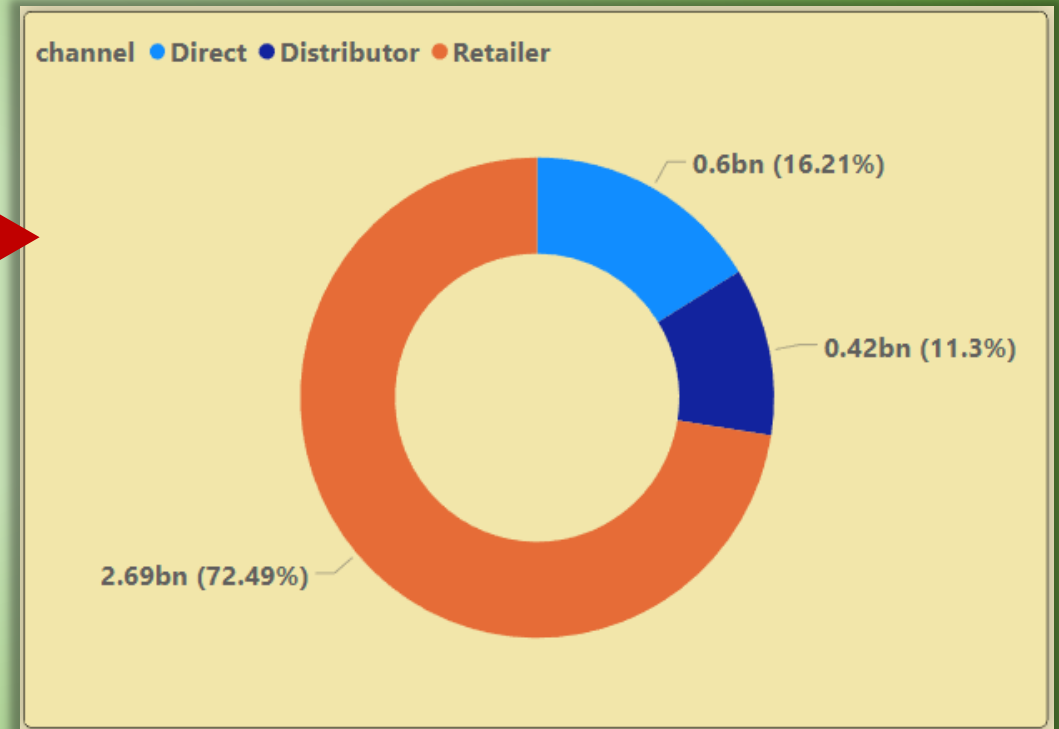
Month	Quater	Sold Quantity	
Sep	1	1.76M	7M
Oct	1	2.19M	
Nov	1	3.05M	
Dec	2	3.18M	6.64M
Jan	2	1.76M	
Feb	2	1.70M	
Mar	3	0.24M	2.08M
Apr	3	0.82M	
May	3	1.02M	
Jun	4	1.56M	2.08M
Jul	4	1.69M	
Aug	4	1.79M	

***Maximum sold quantity was in the
first quarter of the financial year
2020***

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, and Percentage.

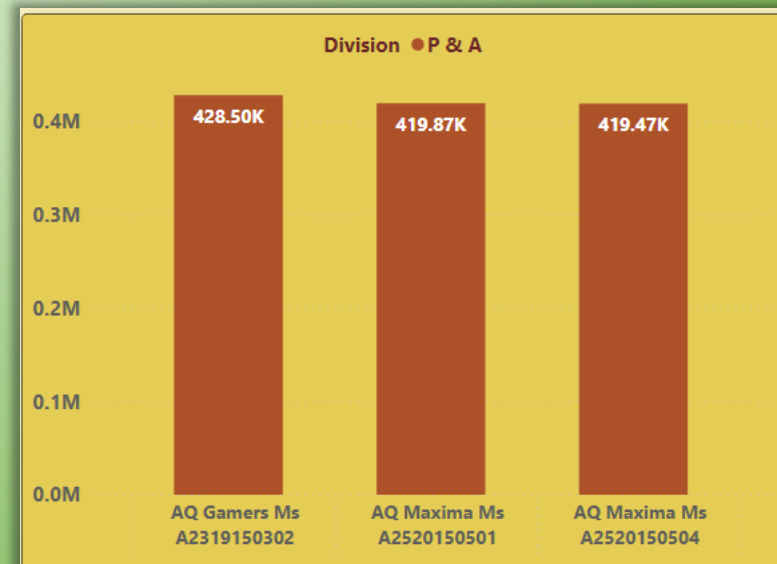
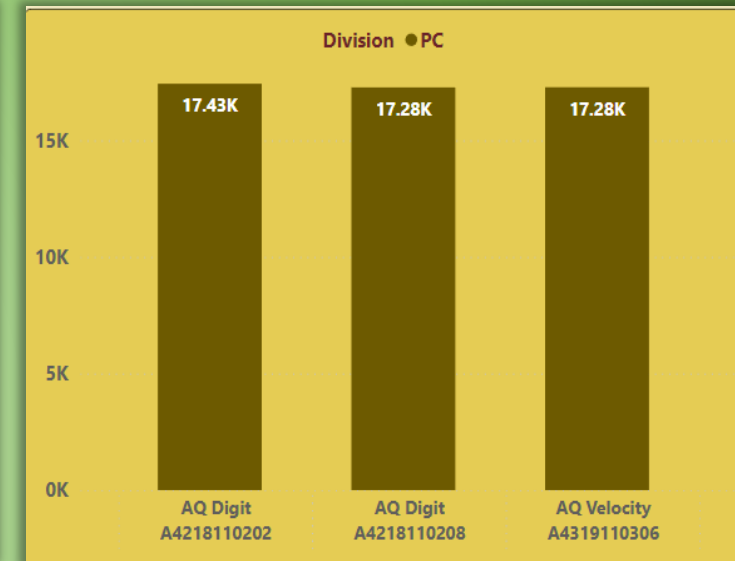
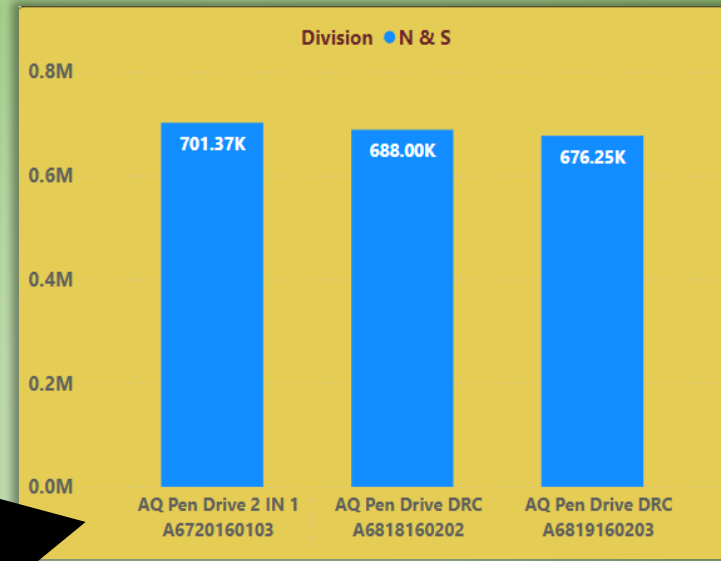
channel	gross_sale_amt	pct
Retailer	1924.17	73.22%
Direct	406.69	15.48%
Distributor	297.18	11.31%



1. Retailer helped to bring **maximum** gross sales in fiscal year 2021 of **72.49%**
2. Distributor channel brought **minimum** gross sales in fiscal year 2021 of **11.3%**

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	order_rank
N & S	A6720160103	AQ Pen Drive 2 IN 1	1
N & S	A6818160202	AQ Pen Drive DRC	2
N & S	A6819160203	AQ Pen Drive DRC	3
P & A	A2319150302	AQ Gamers Ms	1
P & A	A2520150501	AQ Maxima Ms	2
P & A	A2520150504	AQ Maxima Ms	3
PC	A4218110202	AQ Digit	1
PC	A4319110306	AQ Velocity	2
PC	A4218110208	AQ Digit	3



1. AQ Pen Drive 2 IN 1 was the top-sold quantity in N & S Division.
2. AQ Gamers Ms was the top-sold quantity in P & A Division.
3. AQ Digit was the top-sold quantity in the PC Division