



AtliQ Hardwares

Consumer Goods Ad-Hoc Insights

[SQL Project]



Created by: Yerram Sai Kiran

Project Background:

- ❑ Atliq Hardwares is one of the leading computer hardware producers in India and has expanded its operations in other countries too.
- ❑ However, in order to make quick and data-driven decisions the management noticed that they do not get enough insights from the data.
- ❑ So Tony Sharma, the data analytics director, wanted to hire few junior data analysts for their team who were good at both tech and soft skills.
- ❑ Hence, he decided to conduct a SQL challenge which will help him understand both the skills of the candidates.



Provided Data:

- ☐ Ad-hoc requests file
- ☐ A dataset with 6 tables
- ☐ Meta data

Task:

- ☐ There are 10 ad hoc requests for which the business needs insights. You need to run a SQL query to answer these requests.
- ☐ Prepare a presentation of insights for the top-level management.

gdb023 dim_product	...
category	
division	
product	
product_code	
segment	
variant	
Collapse ^	

gdb023 dim_customer	...
channel	
customer	
Σ customer_code	
market	
platform	
region	
sub_zone	
Collapse ^	

gdb023 fact_sales_monthly	...
Σ customer_code	
date	
Σ fiscal_year	
product_code	
Σ sold_quantity	
Collapse ^	

gdb023 fact_gross_price	...
Σ fiscal_year	
Σ gross_price	
product_code	
Collapse ^	

gdb023 fact_pre_invoice_deductions	...
Σ customer_code	
Σ fiscal_year	
Σ pre_invoice_discount_pct	
Collapse ^	

gdb023 fact_manufacturing_cost	...
Σ cost_year	
Σ manufacturing_cost	
product_code	
Collapse ^	



Ad-hoc Business Requests



Output:

Request 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:

In APAC region, Atliq Exclusive operates its business in **8** prominent markets.



Output:

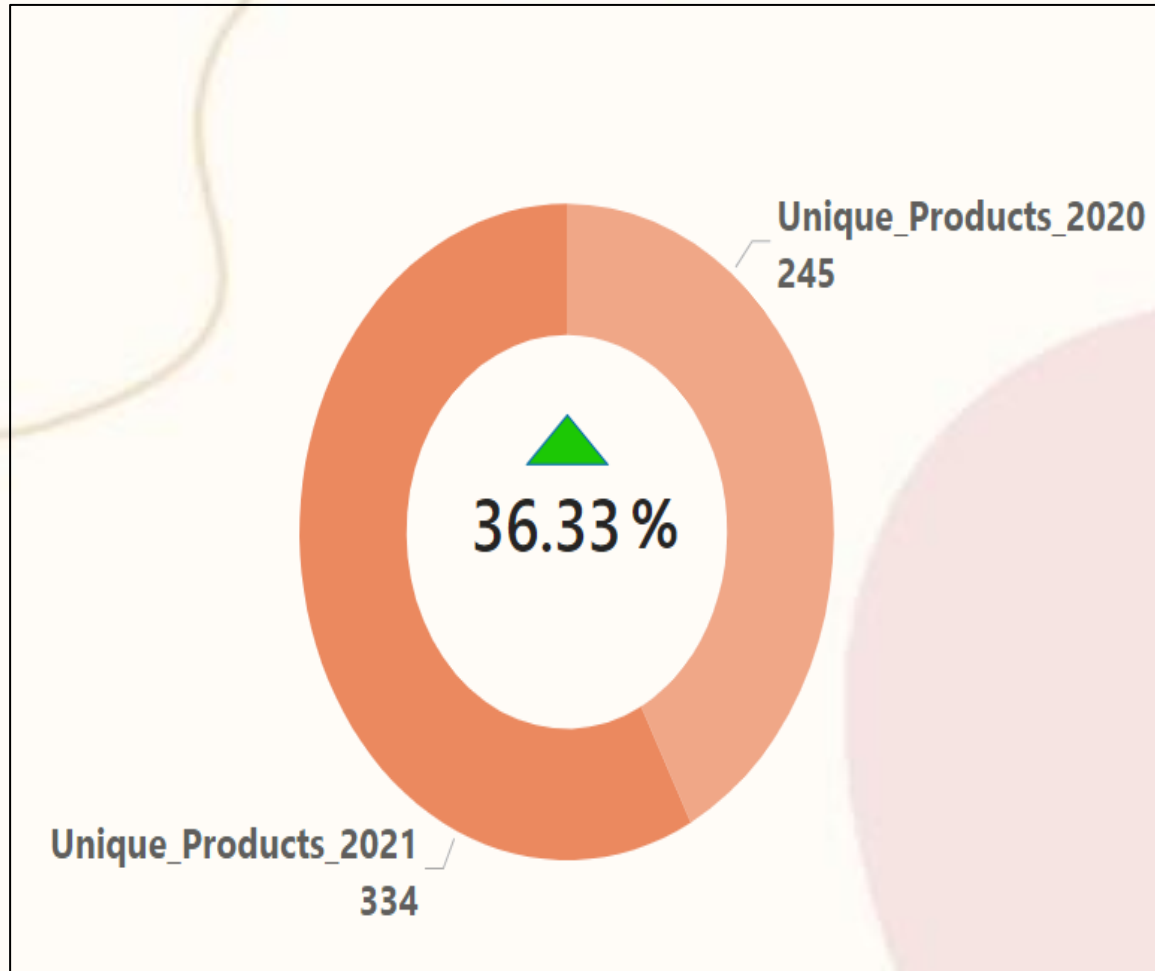
Request 2:

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

- i) unique_products_2020
- ii) unique_products_2021
- iii) percentage_chg

	unique_products_2020	unique_products_2021	percentage_chg
▶	245	334	36.33





Insights:

- i) In FY20 the total number of products were 245
- ii) In FY21 **89** new products were launched into the market place (increase of 36.33 %) and the total number of products from Atliq Hardwares reached to 334.



Output:

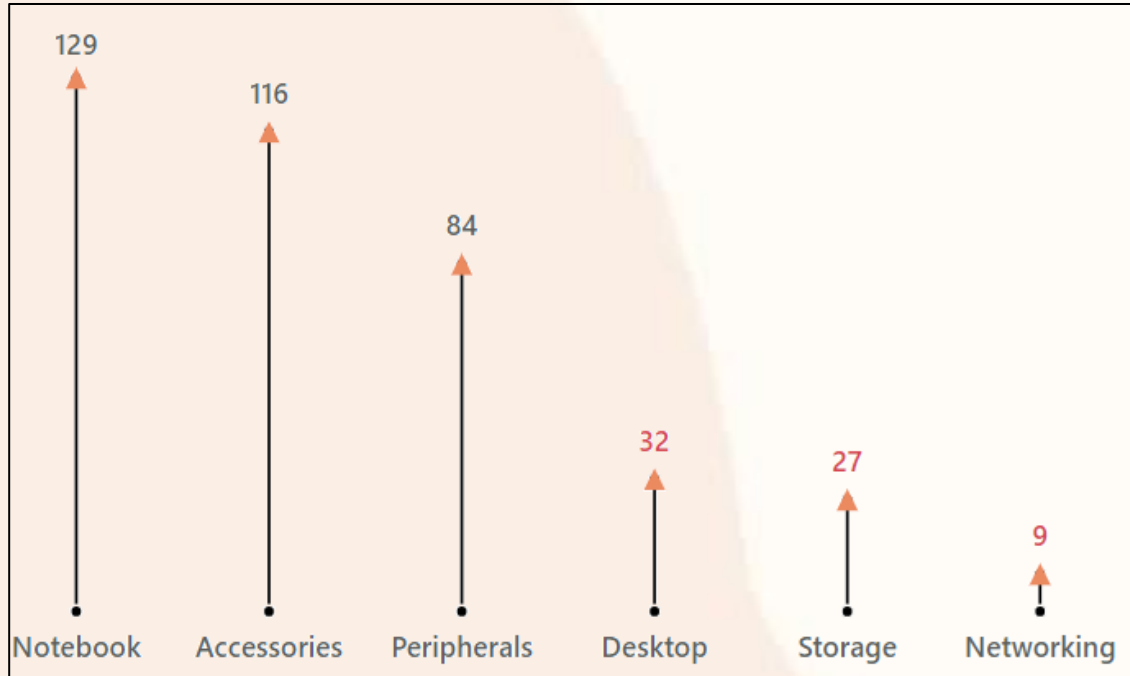
Request 3:

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:

- i) segment
- ii) product_count

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





Insights:

Atliq Hardwares categorized its products into 5 segments

Among those segments **Notebook, Accessories and Peripherals** contains more number of unique products as compared to Desktop, Storage and Networking.



Output:

Request 4:

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

- i) segment
- ii) product_count_2020
- iii) product_count_2021
- iv) difference

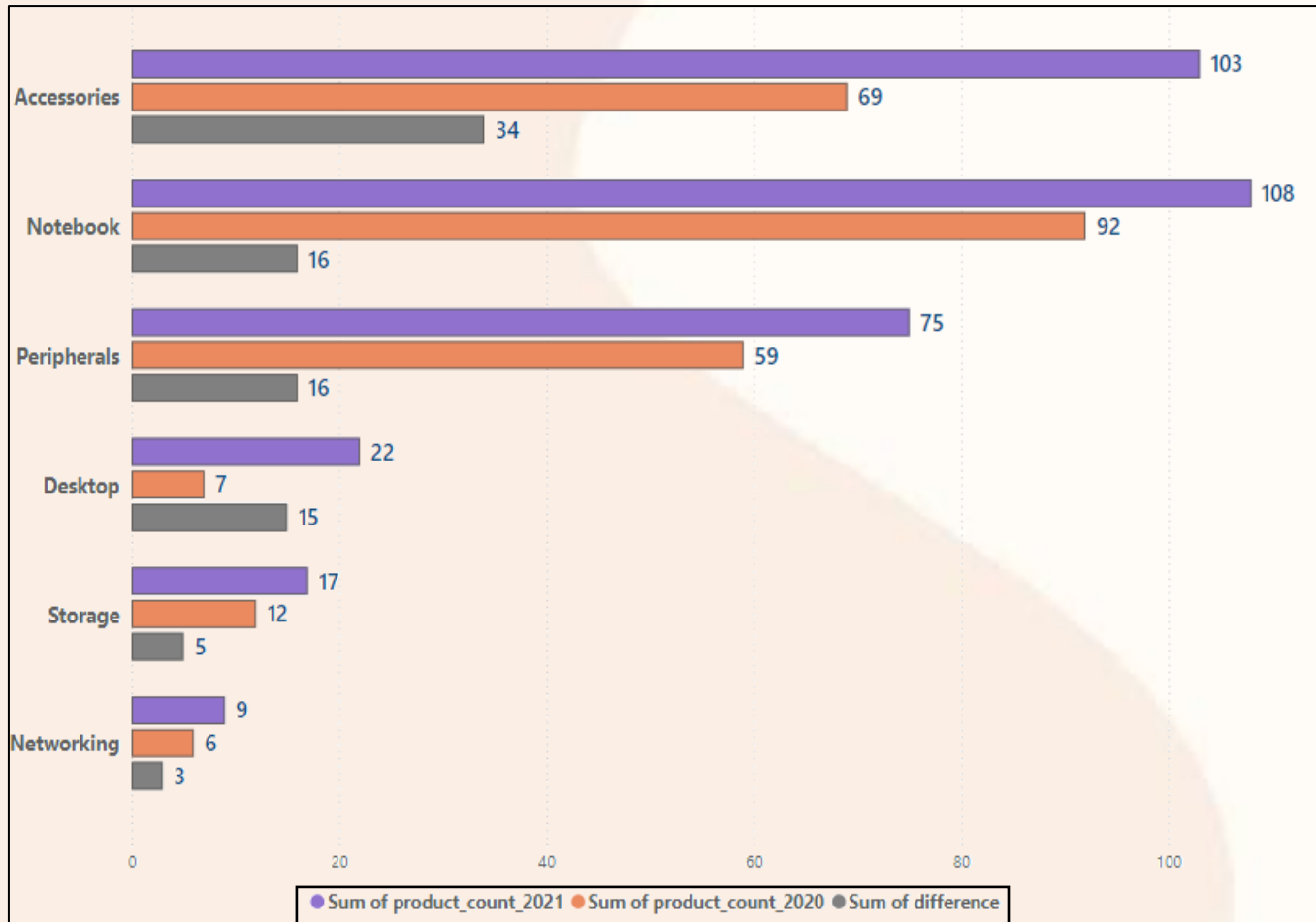
	segment	product_count_2020	product_count_2021	difference
►	Accessories	69	103	34
	Notebook	92	108	16
	Peripherals	59	75	16
	Desktop	7	22	15
	Storage	12	17	5
	Networking	6	9	3



Insights:

i) By introducing **34** new products, the **Accessories** segment had the **most** increase in unique products in FY21 compared to FY20.

ii) By launching only **3** new products, the **Networking** segment has witnessed the **least** increase in unique products in FY21 compared to FY20.



Output:

Request 5:

Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields:

- i) product_code
- ii) product
- iii) manufacturing_cost

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



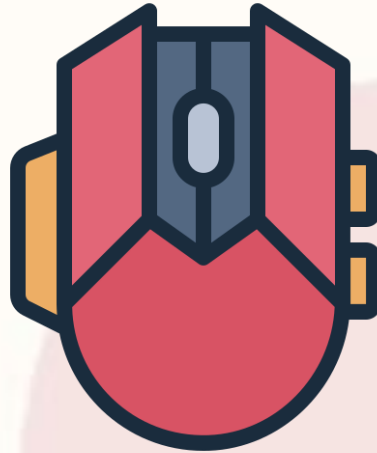
Insights:

Among all the products manufactured by Atliq Hardwares,

- i) Product " **AQ Home Allin1 Gen 2**" has the highest manufacturing cost
- ii) Product - "**AQ Master wired x1 Ms**" has the least manufacturing cost.



AQ Home Allin1 Gen 2
[\$240.54]



AQ Master wired x1 Ms
[\$0.89]



Output:

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:

- i) customer_code
- ii) customer
- iii) average_discount_percentage

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

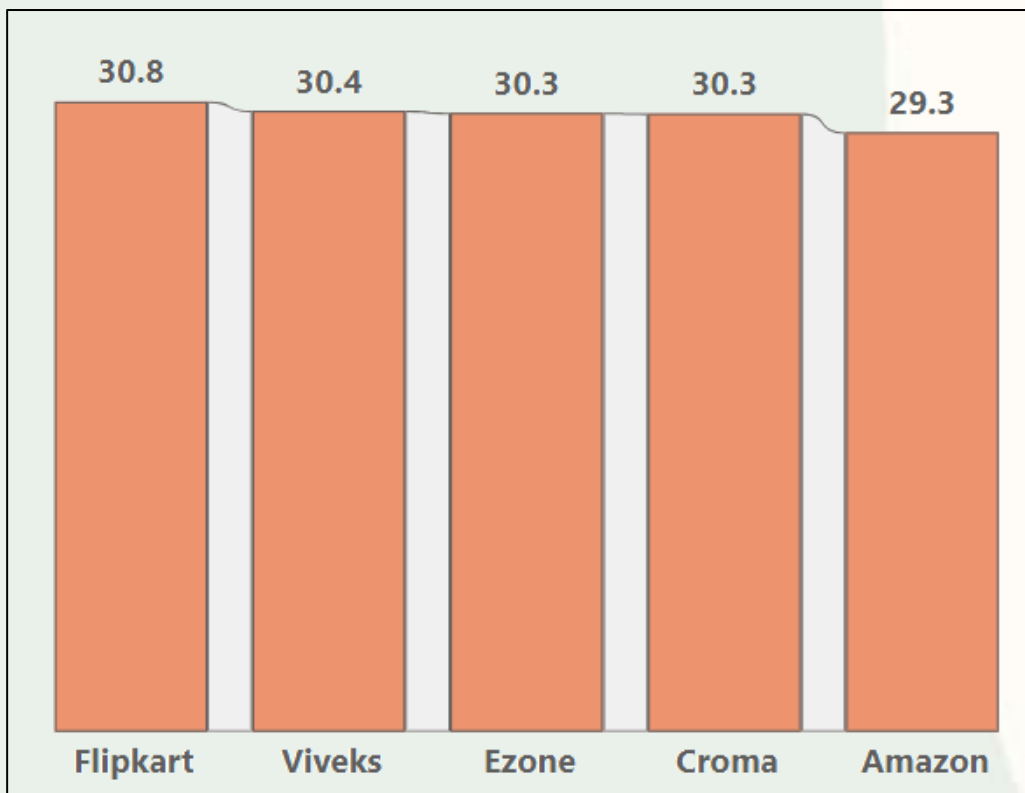


Insights:

In FY21, Atliq Hardwares has given almost the same average pre_invoice_discount_percentage to the top 5 customers of Indian market and among them:

Flipkart has received the **highest** and

Amazon has received the **least** average pre_invoice_discount_percentage respectively.



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:

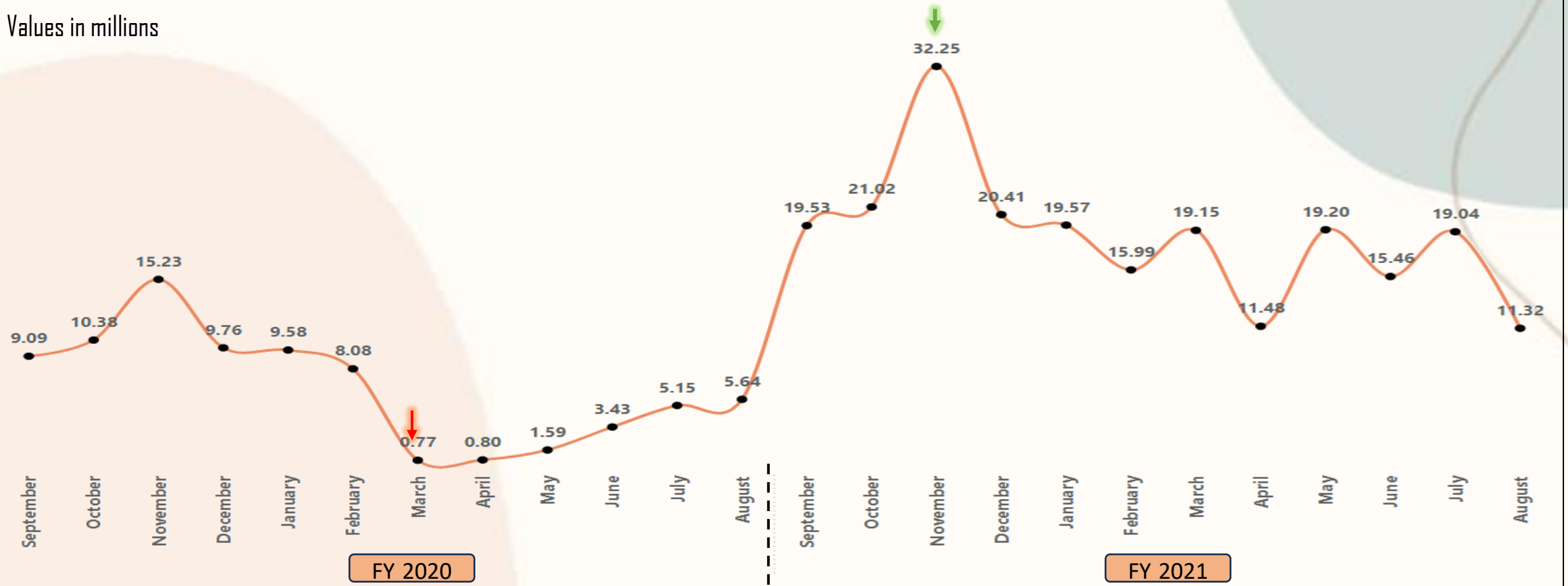
- i) Month
- ii) Year
- iii) Gross sales Amount

Output:

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



Values in millions



Insights:

Atliq Exclusive had its least sales of 0.77M in March 2020 and it has recorded its highest sales of 32.25M in November 2021.



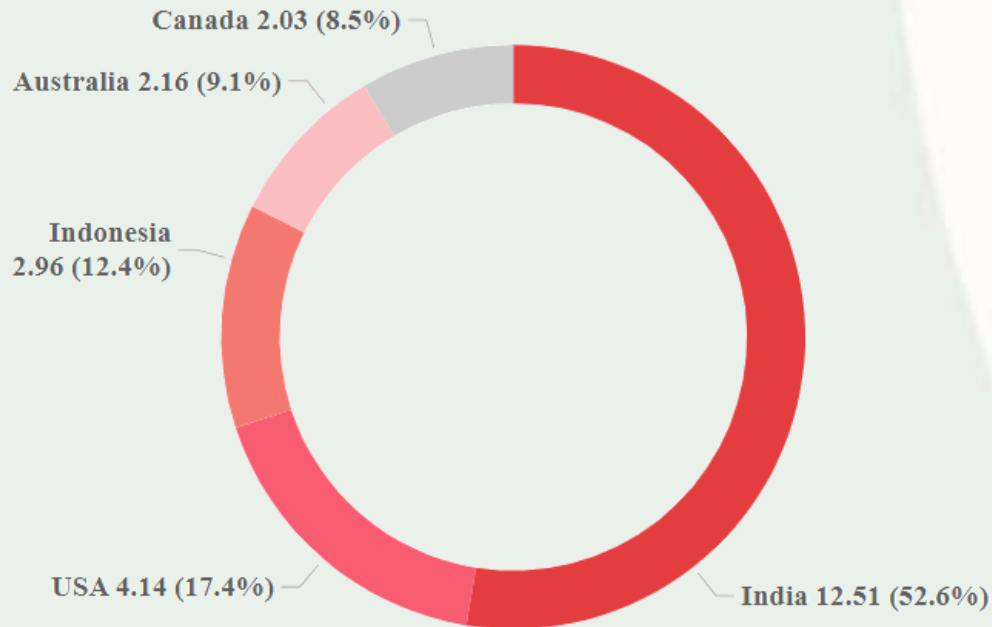
Top 5 markets of Atliq Exclusive in November, FY2021

	market	gross_sales_millions
▶	India	12.51
	USA	4.14
	Indonesia	2.96
	Australia	2.16
	Canada	2.03

[Additional insights]

Reasons:

- i) The reason of low sales in March 2020 could be the **Covid pandemic**
- ii) Upon analyzing the top 5 market place sales, it has been noticed that **52.6%** of total sales in November month is from **Indian market** and this could be due to the **Diwali** [4 November 2021] festival season in India and more number of purchases may have been made.



Gross_sales_millions by market



Output:

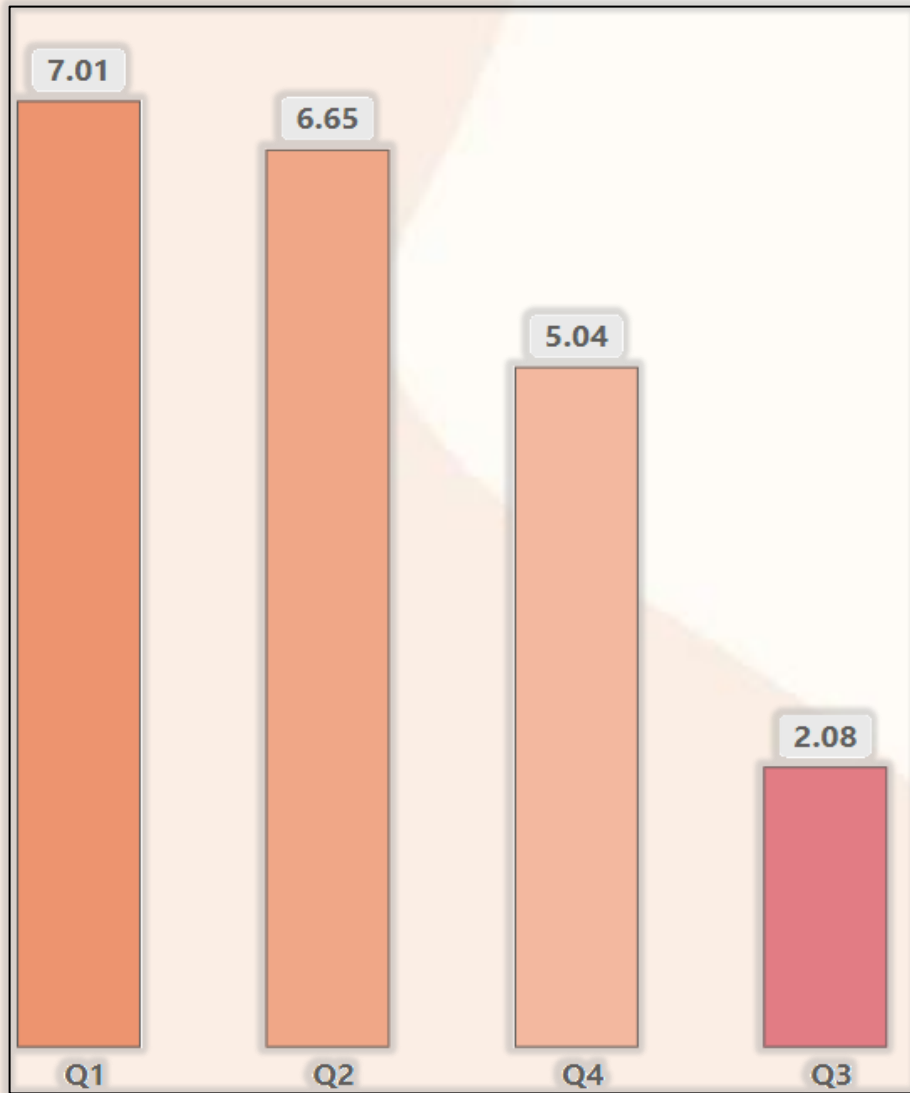
Request 8:

In which quarter of 2020, got the maximum total_sold_quantity? The final output contains these fields sorted by the total_sold_quantity.

- i) Quarter
- ii) total_sold_quantity

	Quarter	total_sold_quantity_mln
▶	Q1	7.01M
	Q2	6.65M
	Q4	5.04M
	Q3	2.08M





Insights:

- i) In FY2020, the maximum products sold were in **Q1** contributing a **33.73%** of total products sold
- ii) **Q3** witnessed least product sales with **10.01%** of total sold quantities



Output:

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:

- i) channel
- ii) gross_sales_mln
- iii) percentage

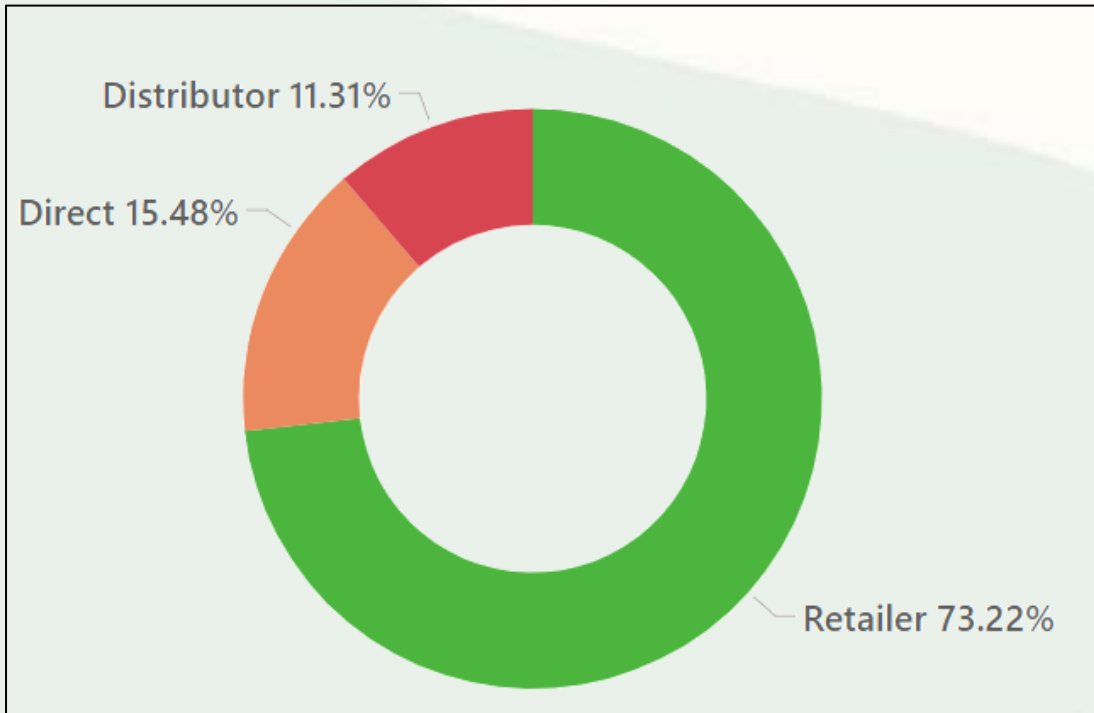
	channel	gross_sales_mln	percentage
▶	Retailer	1924.17	73.22
	Direct	406.69	15.48
	Distributor	297.18	11.31



Insights:

Atliq Hardwares supplies its products to its customers through 3 channels Direct, through distribution and retailer.

- i) In FY21, among the 3 channels, the company received **73.22%** of total gross sales from **Retailer** channel
- ii) **Distributor** channel with **11.31%** is least contributing channel



Output:

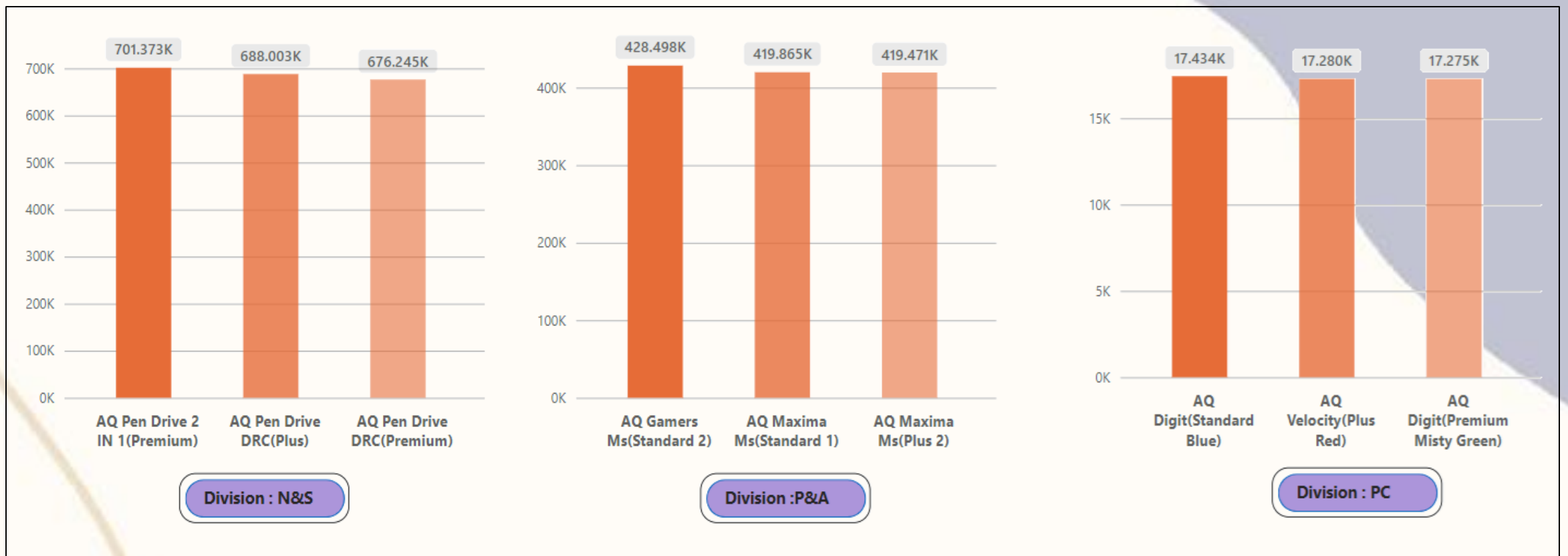
Request 10:

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:

- i) division
- ii) product_code
- iii) product
- iv) total_sold_quantity
- v) rank_order

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





Insights:

- i) The top 3 most sold products of N&S division comes under **USB Flash Drives** category
- ii) The top 3 most sold products of P&A division comes under **Mouse** category
- iii) The top 3 most sold products of PC division comes under **Personal Laptop** category





THANK YOU!



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