



Atliq Hardware

Consumer Good Ad-hoc Insights

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SQL Project Challenge

Agenda



INTRODUCTION AND
GOAL



DISCUSSION ABOUT DATA



ANALYZING AND
ANSWERING THE GIVEN
REQUEST PROBLEM



CONCLUSION

Introduction

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

The management to get enough insights of their Products and customer to make quick and smart data-informed decisions, they have given 10 ad-hoc requests.

In this study I have used SQL Query to find the answers of their requests in order to find the insights of their Products and Customers.

Discussion about data

There are following data from year 2018 to 2022 which are given by organization –

- Customer-related data
- Product-related data
- Gross price information for each product
- Information about the cost incurred in the production of each product
- Pre-invoice deductions information for each product
- Information about monthly sales data for each product

Structure of the data table

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

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

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

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

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

Information about Customer and region

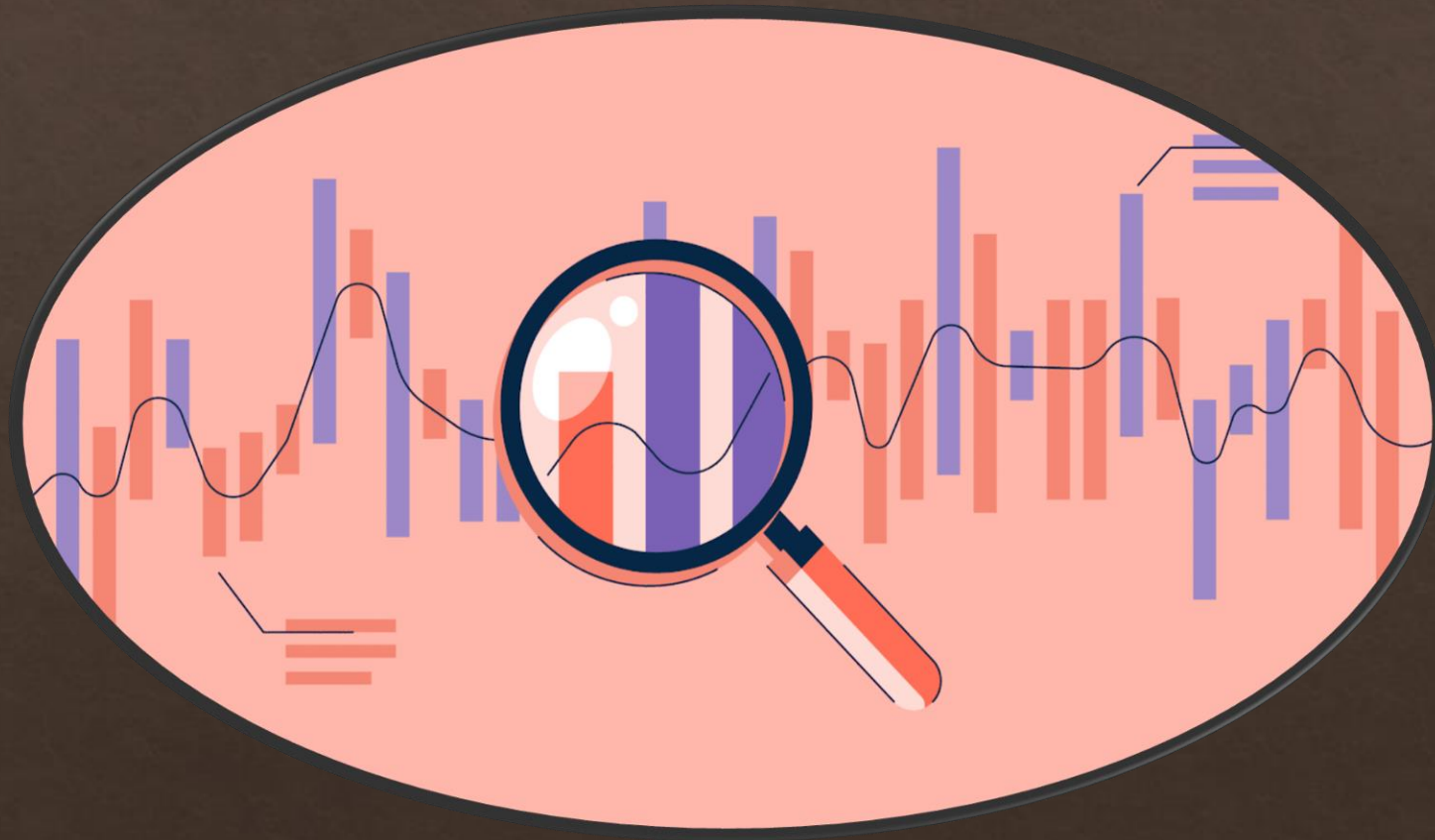
- There are 74 distinct customer presents from different market-country, sub-zone and region
- There are 27 distinct market country exist.
- There are 7 distinct sub zone exist - 'India', 'ROA', 'ANZ', 'SE', 'NE', 'NA', and 'LATAM'
- There are 4 distinct region exist - 'APAC', 'EU', 'NA' and 'LATAM'
- Count of number of market country in each subzone and region given below:

region	ANZ	India	LATAM	NA	NE	ROA	SE	Total
APAC	2	1				7		10
EU					7		4	11
LATAM			4					4
NA				2				2
Total	2	1	4	2	7	7	4	27

Information of Products Category

division	segment	category
P & A	Peripherals	Internal HDD
		Graphic Card
		Processors
		MotherBoard
	Accessories	Mouse
		Keyboard
		Batteries
PC	Notebook	Personal Laptop
		Business Laptop
		Gaming Laptop
	Desktop	Business Laptop
		Personal Desktop
N & S	Storage	External Solid State Drives
		USB Flash Drives
	Networking	Wi fi extender

Ad-hoc requests and Analyzation



Request – 1:

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

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_2020	unique_products_2021	percentage_chg
▶	245	334	36.33%

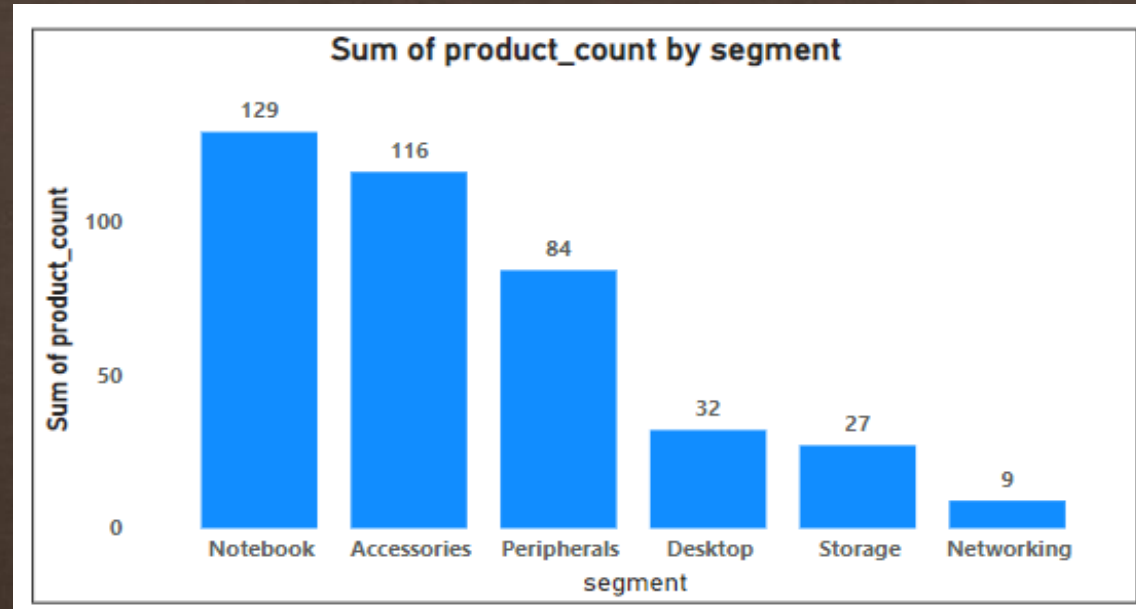
Request – 3:

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	129
	Accessories	116
	Peripherals	84
	Desktop	32
	Storage	27
	Networking	9



Insight:

- Number of unique Product in network segment is very less.

Request – 4:

Follow-up: Which segment had the most increase in unique products in 2021 vs 2020?

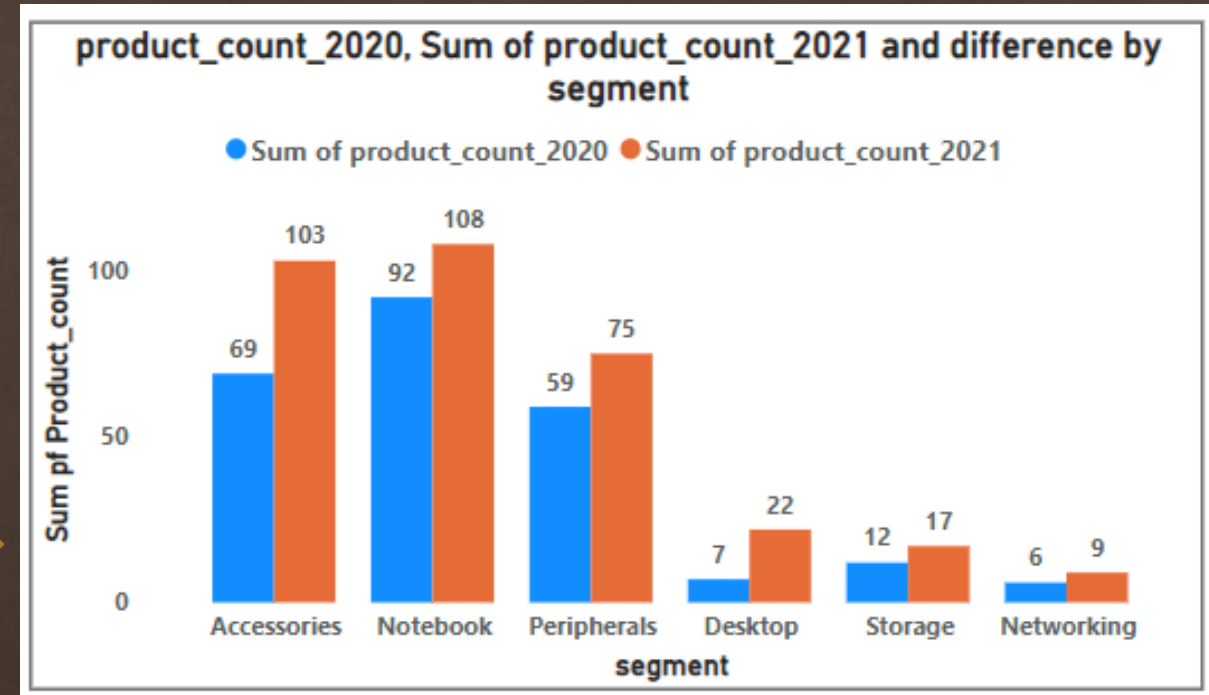
The final output contains these fields,
segment

product_count_2020

product_count_2021

difference

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



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
▶	A6121110208	AQ HOME Allin1 Gen 2	263.4207
	A2118150101	AQ Master wired x1 Ms	0.8654

Highest Manufacturing Cost

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.

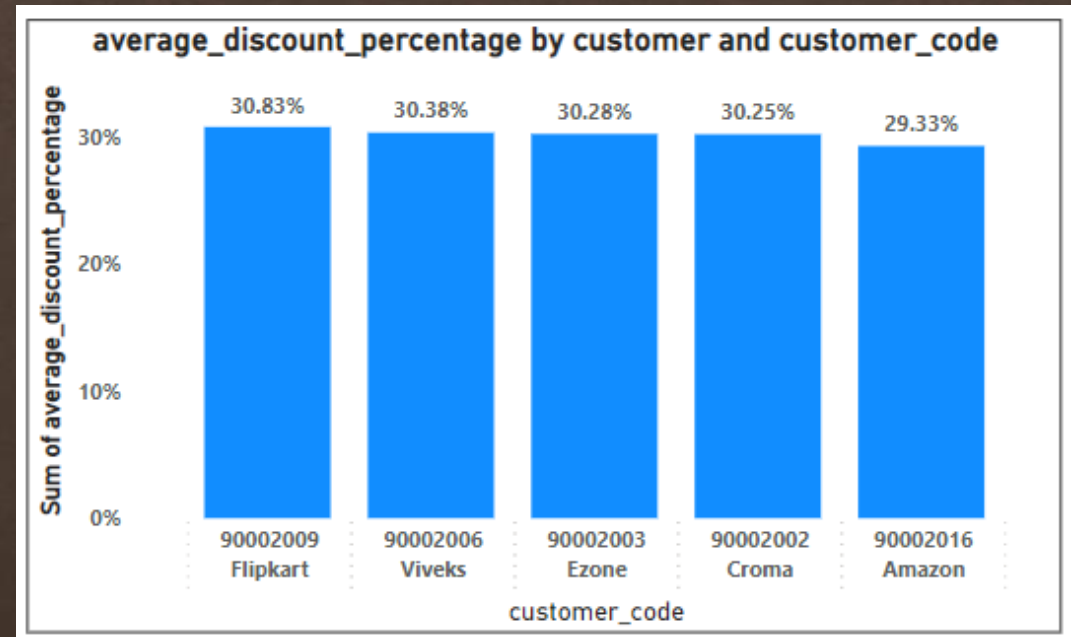
The final output contains these fields,

customer_code

customer

average_discount_percentage

	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%



Insight:

- Average discount Percentage of top 4 customer more or less same except Amazon. Although it is also very small. In Amazon average discount percentage differs from more or less 1% from others 4. For example, from Croma it differs 0.93% and from Flipkart it differs 1.5%.

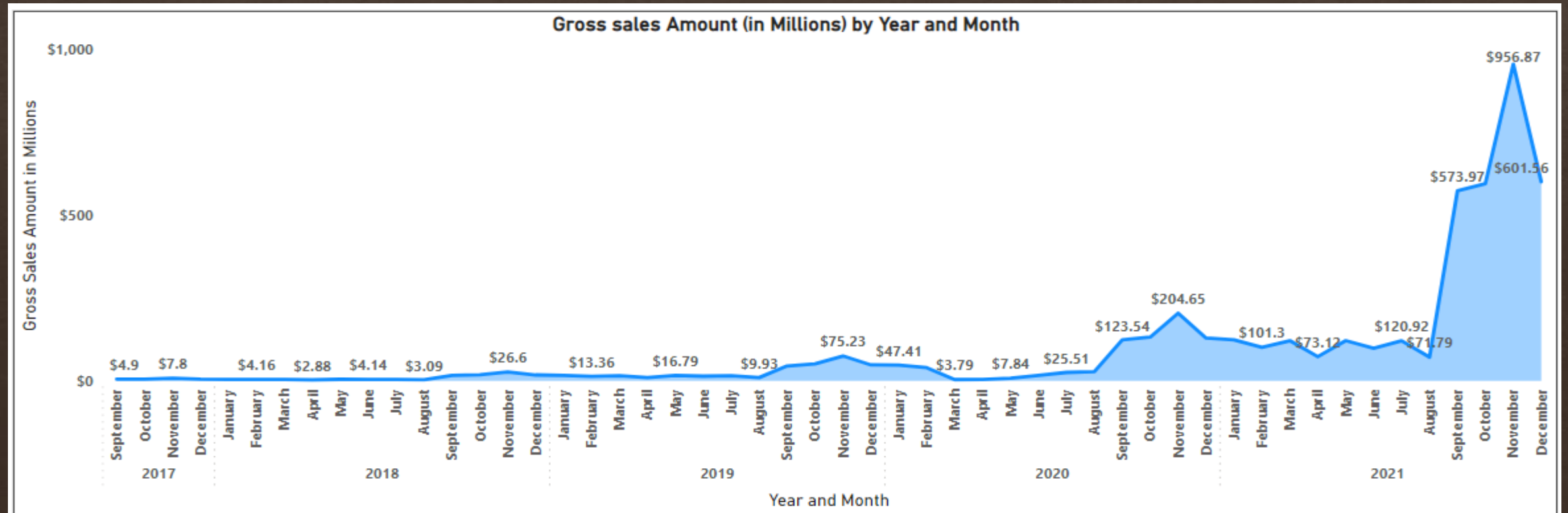
Request – 7:

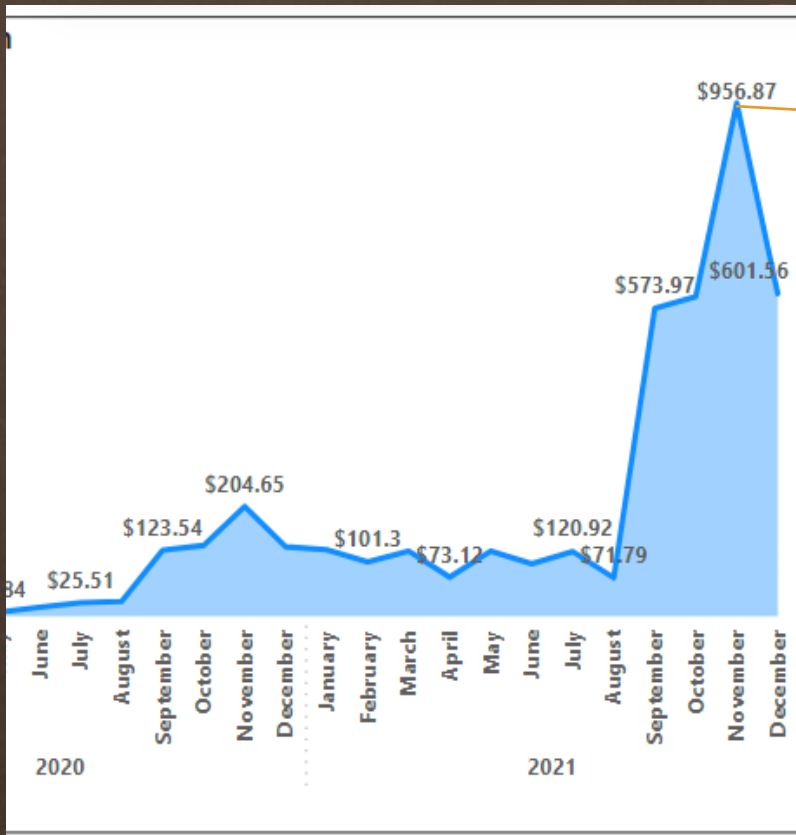
Get the complete report of the Gross sales amount for the customer “Atliq Exclusive” for each month. This analysis helps to get an idea of low and high-performing months and take strategic decisions. The final report contains these columns:

Month

Year

Gross sales Amount





Highest selling month

Most selling months

Insight:

- It seems that gross sales from September to Next February little bit higher than other months. Also, gross sales went to peak in end 2021(from September). And November is most selling month in every year.
- November 2021 is most selling month.

Request – 8:

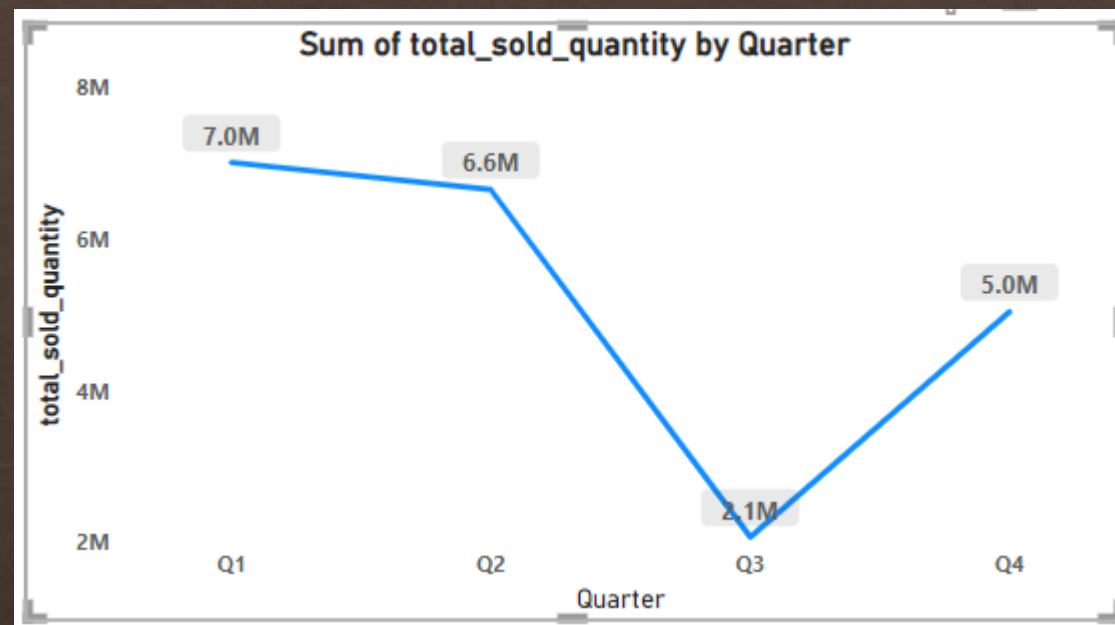
In which quarter of 2020, got the maximum total_sold_quantity?

The final output contains these fields sorted by the total_sold_quantity,

Quarter

total_sold_quantity

	Quarter	total_sold_quantity
►	Q1	7005619
	Q2	6649642
	Q4	5042541
	Q3	2075087



Insight:

- Total Sold quantity in 2020 Q3 is very less.
- Total sold quantity decreasing with each quarter.
- Q1 has maximum total sold quantity and Q3 has minimum total sold quantity.

Request – 9:

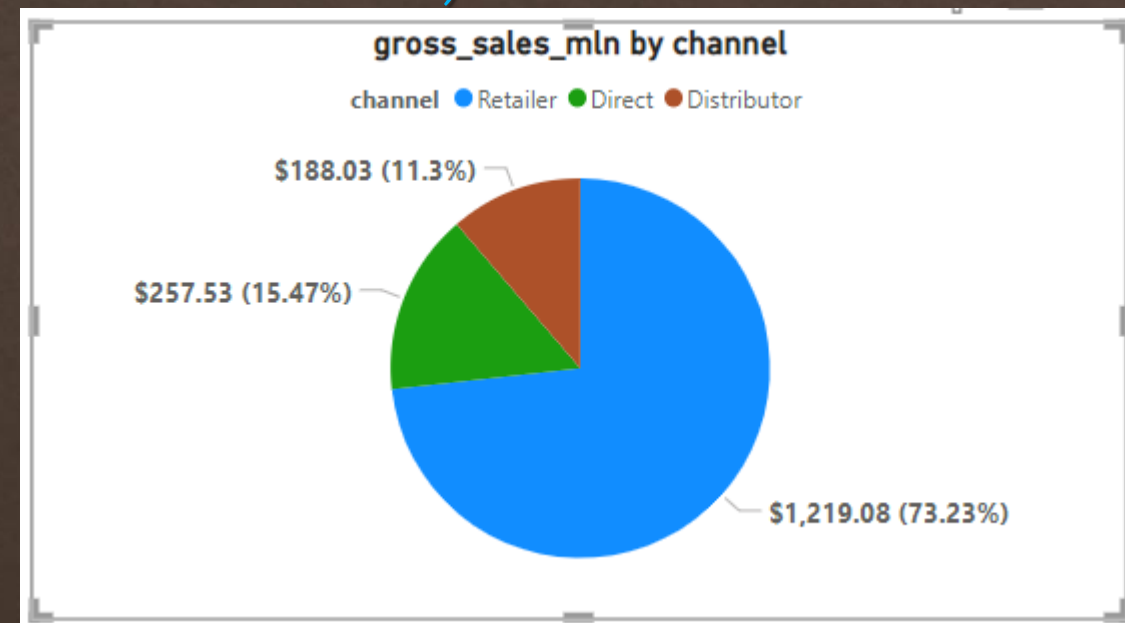
Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution? The final output contains these fields,

channel

gross_sales_mln

percentage

	channel	gross_sales_mln	percentage
▶	Retailer	\$1219.08 M	73.23%
	Direct	\$257.53 M	15.47%
	Distributor	\$188.03 M	11.30%



Insight:

- In 2021, maximum gross sales comes from Retailer and less sales comes from distributor.

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

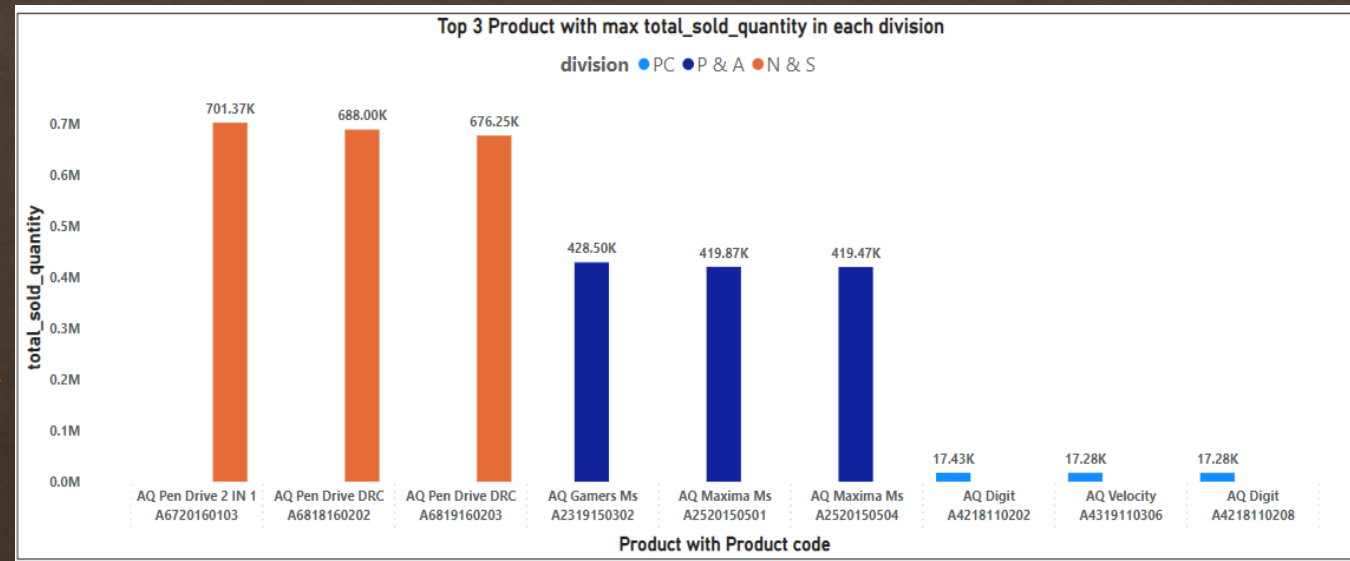
product_code

product

total_sold_quantity

rank_order

	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



Insight:

- Sold quantity of products from PC division is extremely less in 2021.
- Sold quantity of products from N & S division is maximum in 2021, whereas sold quantity of products from P & A division is moderate.

Conclusion

- Number of unique Product in network segment is extremely less. Storage and desktop section is also less than others segment. So, Need to increase products in these categories according sales.
- Flipkart received average highest pre invoice discount percentage for the fiscal year 2021 in the Indian market. So, for Indian market Atliq Hardware needs to focus on Flipkart.
- It seems that gross sales from September to Next February little bit higher than other months. Also, gross sales went to peak in end 2021(from September). And November is most selling month in every year. So, Company needs to focus on end of a year and start of a year specially in November month.
- In 2021, maximum gross sales comes from Retailer and less sales comes from distributor. So, Company needs to more focus on Retailer channel.
- Sold quantity of products from PC division is extremely less in 2021 whereas, Sold quantity of products from N & S division is maximum in 2021. So, Company needs to more product stocks in N & S division.

Thank
you

The image features the words "Thank you" in a black, elegant cursive script. The text is centered and surrounded by a decorative arrangement of orange, teardrop-shaped petals and small, four-pointed stars. The background is a solid dark brown color. The overall composition is balanced and visually appealing, with the orange elements providing a warm contrast to the dark background.