

Presented By :
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Introduction

Atliq Hardware, a leading computer hardware manufacturer in India with a global customer base, aims to gain insights into product sales to support data-driven decision-making.

Problem Statement

- The management realized they lack enough insights to make quick and smart decisions.
- To fix this, they plan to grow their data analytics team by hiring more junior data analysts.
- Tony Sharma, the data analytics director, is looking for candidates with both technical and soft skills.

Objectives

The primary objectives of the project are:

1. Problem Solving: To address 10 ad-hoc business requests by querying and analyzing the provided datasets.
2. Stakeholder Communication: To present findings in a professional and stakeholder-friendly format, ensuring clarity and relevance for top-level management.
3. Technical Proficiency: To demonstrate a deep understanding of SQL, including querying, aggregating, and manipulating data. Power BI tool is used for data visualization and present insights.
4. Strategic Thinking: To apply data analysis to solve real-world business challenges and propose data-informed recommendations for executive decision-making.

Ad-Hoc Requests and Tools



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

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

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:

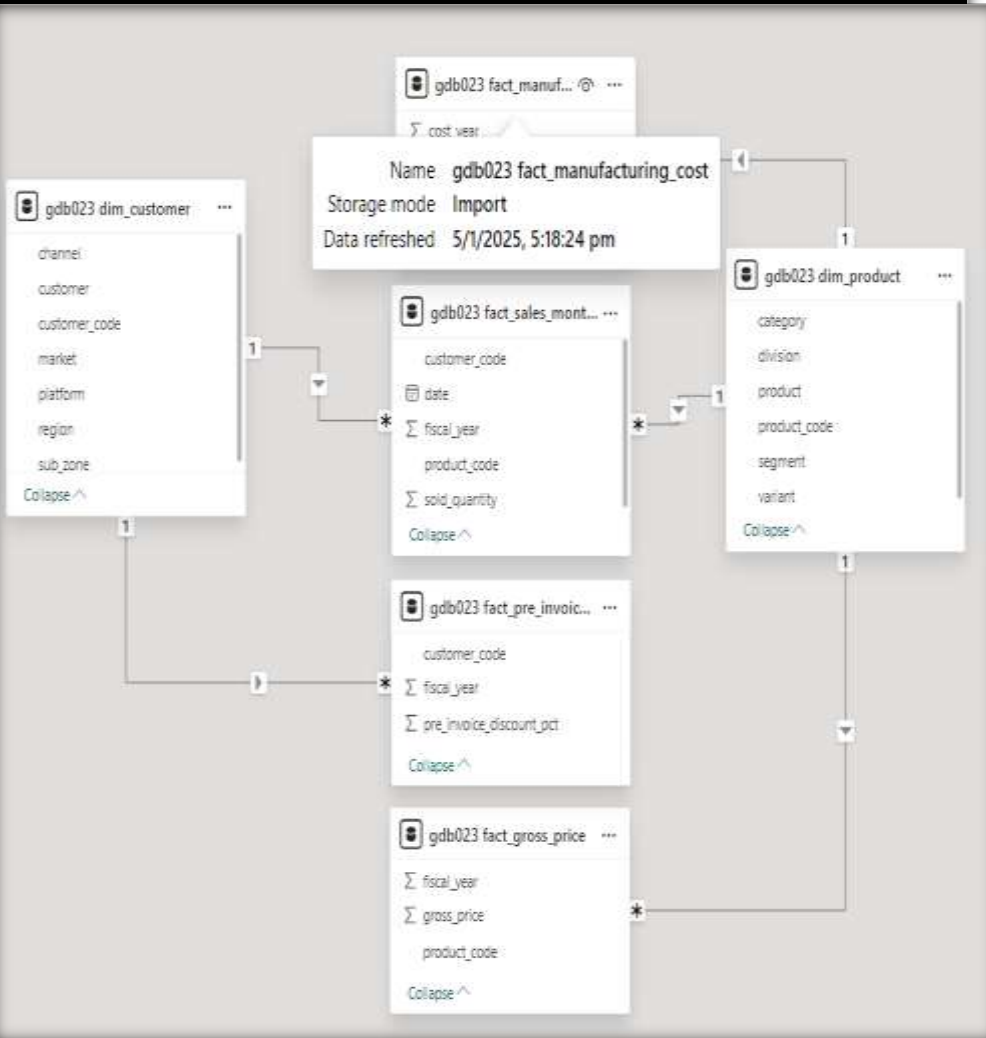
Month
Year
Gross sales Amount

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
product_code



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
Philippines
South Korea



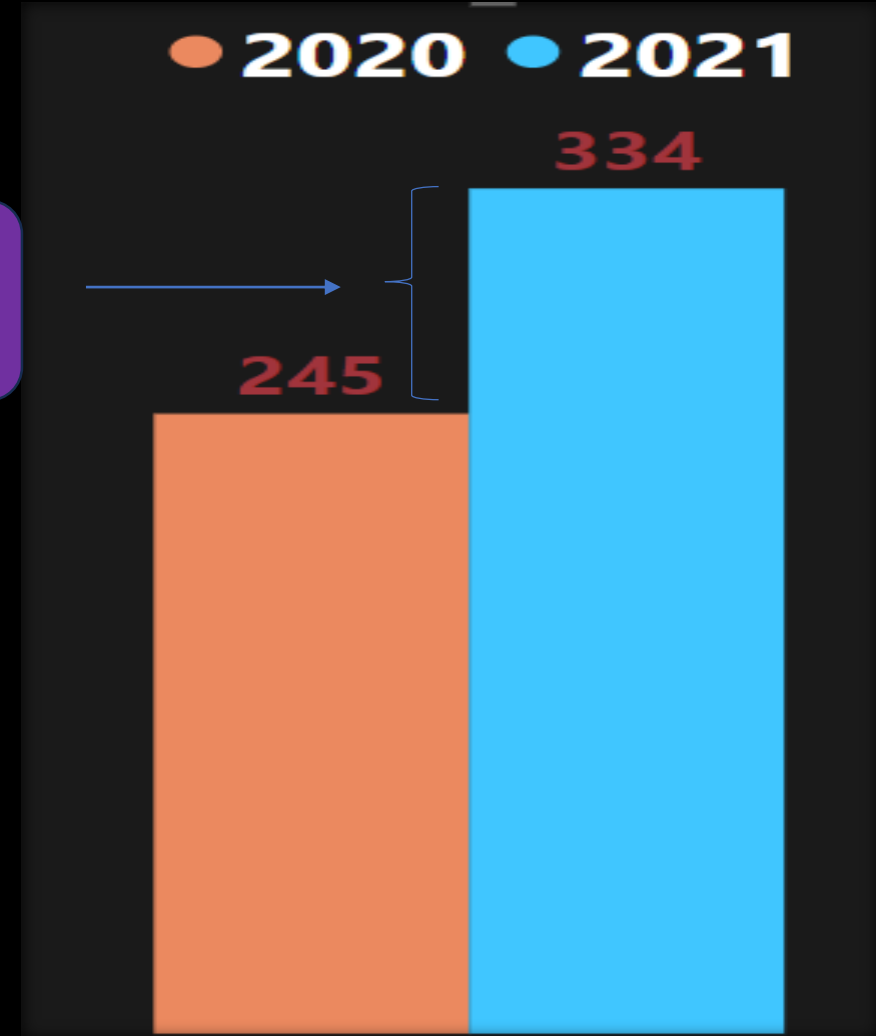
2. What is the percentage of unique product increase in 2021 vs. 2020?

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

36.33 %



Insight:

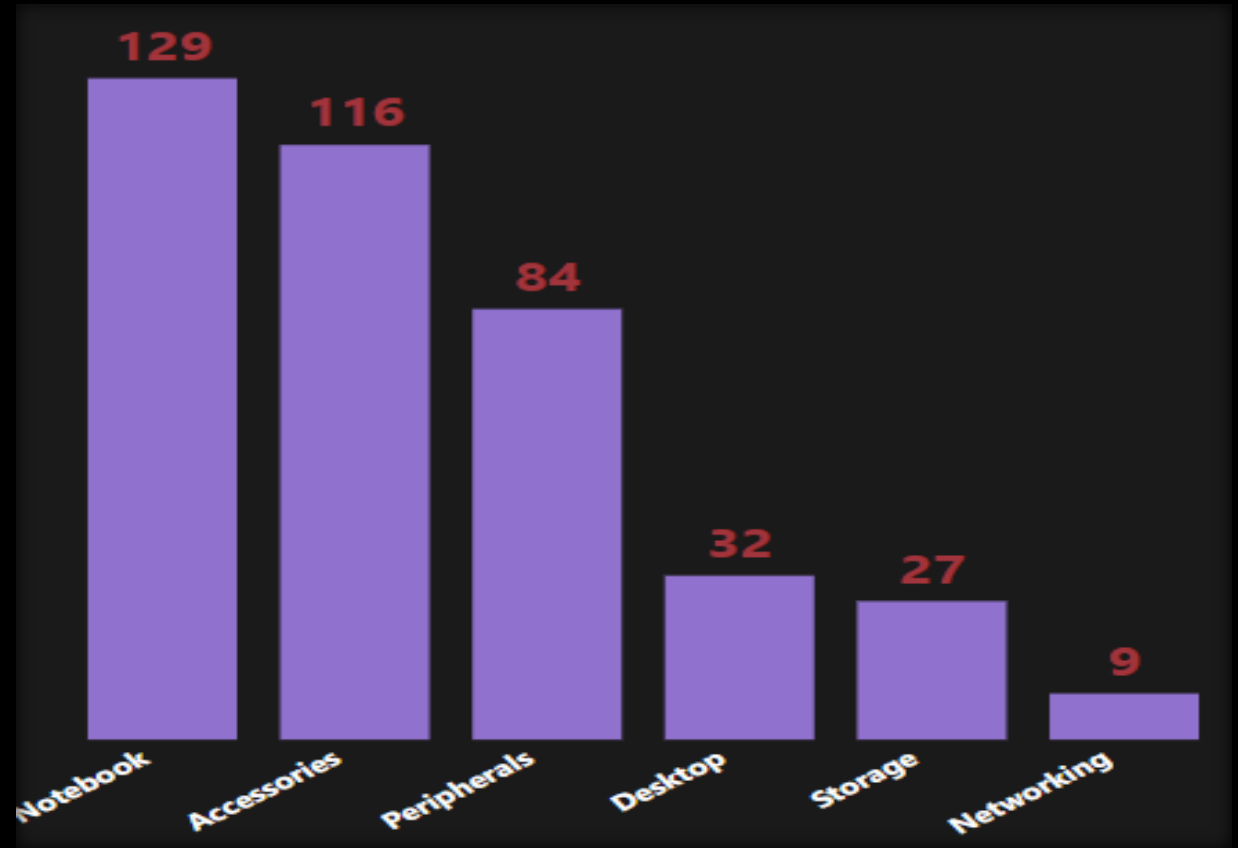
The percentage increase from 2020 to 2021 is 36.3%. So we can say demand and production both are increased in 2021.

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

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

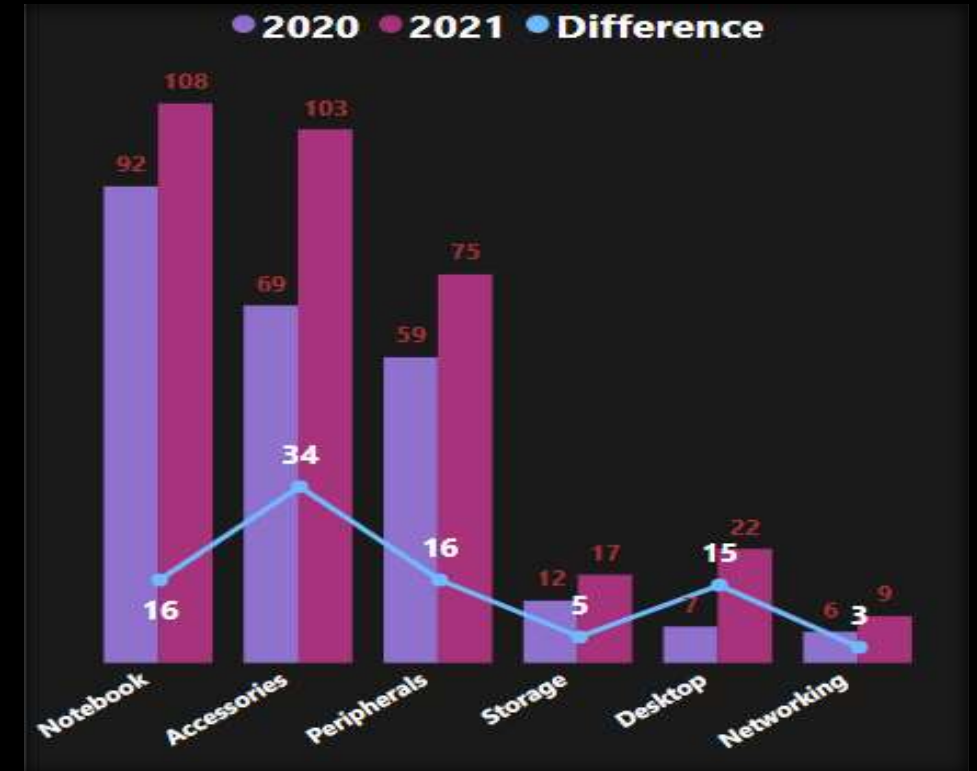


4. Follow-up: Which segment had the most increase in unique products in 2021 vs 2020?

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



Insight:

- Accessories shows the most demands and production in 2021 as compare to other segment.
- Storage and networking shows the slowest growth.

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



**Product with Max
Manufacturing cost
- AQ Home Allin1 Gen2**



**Product with Min
Manufacturing cost
- 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`

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

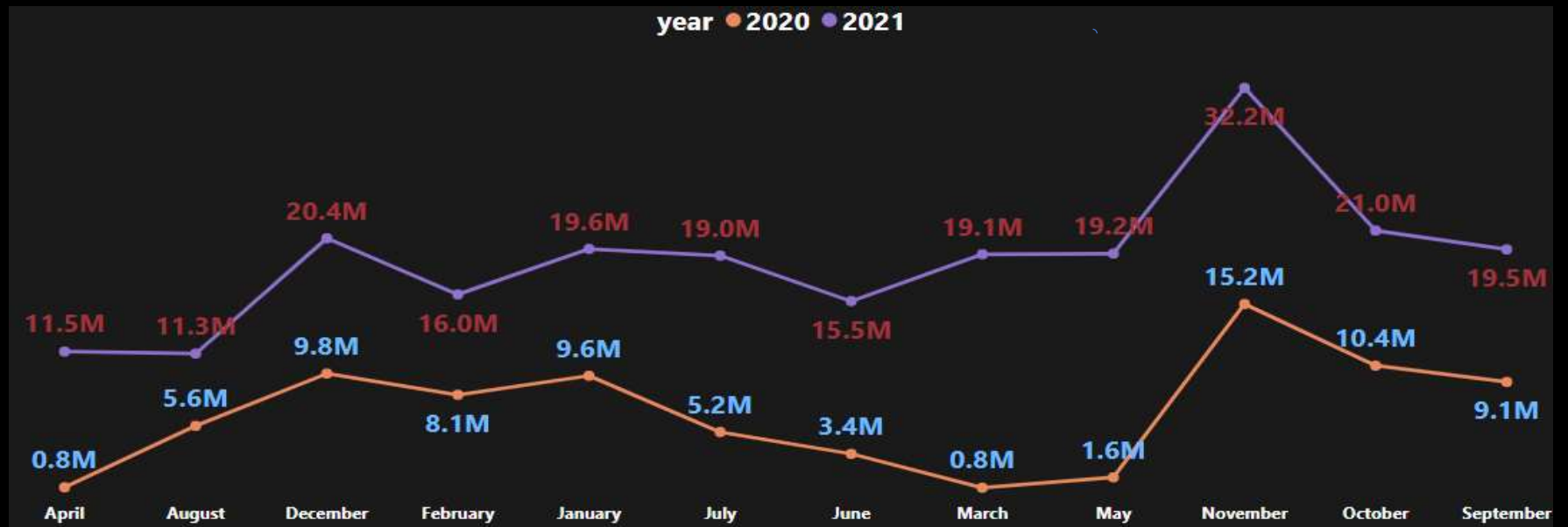
Insight:

- The maximum `pre_invoice_discount` was given to **flipkart**.
- The minimum `pre_invoice_discount` was given to **Amazon**.

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

month	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



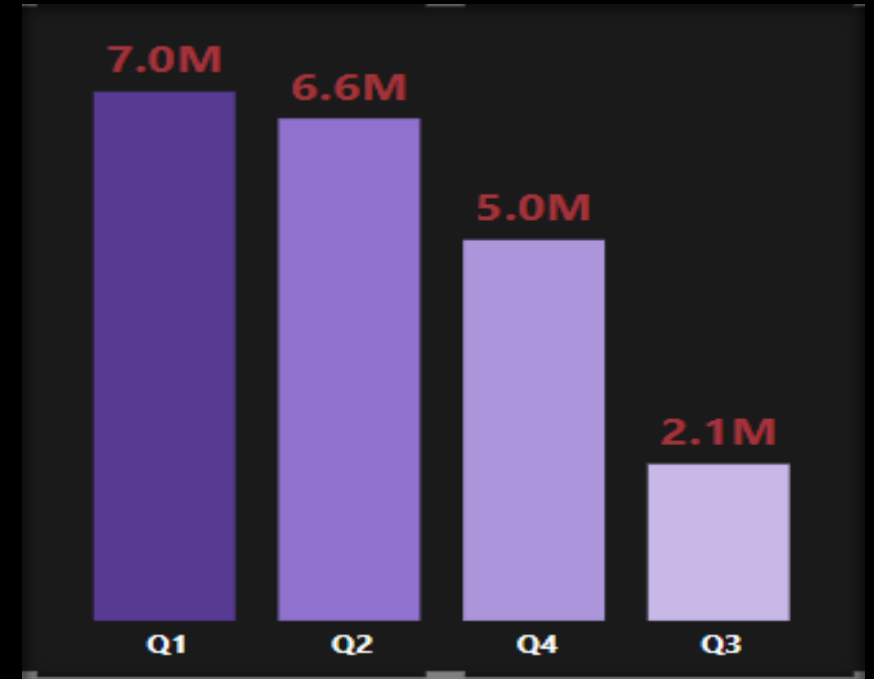
Insights:

- The lowest Gross Sales Amount is in FY 2020 march.
- The highest Gross Sales Amount is in November of both Fiscal year.

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



Insights:

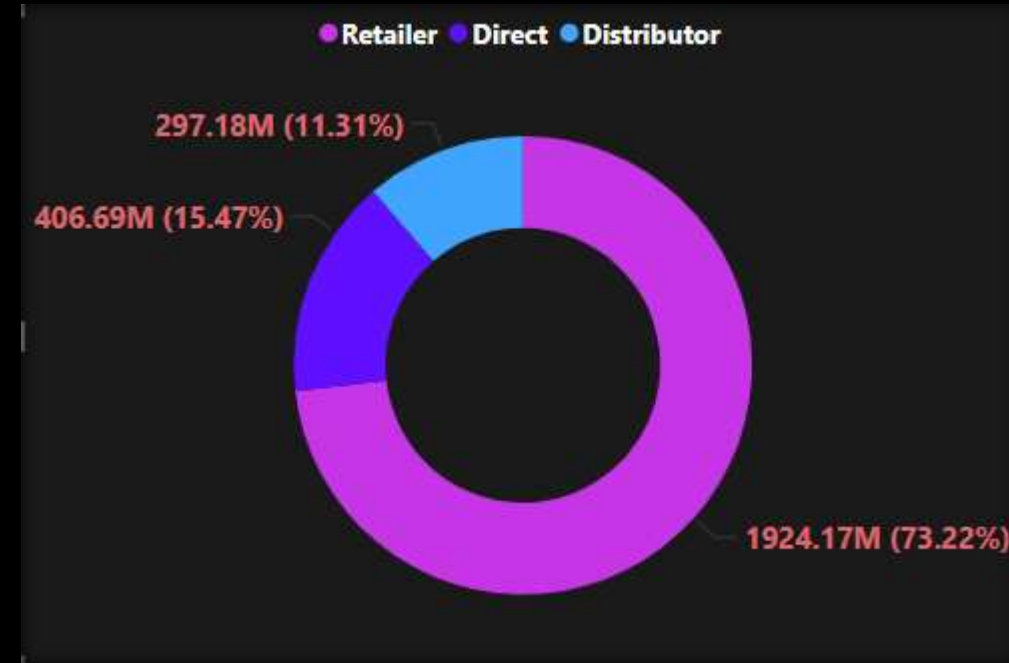
- Q1 shows the maximum total_sold_quantity.
- Q3 shows the minimum total_sold_quantity.

Q1 - September, October, November
Q2 – December, January, February
Q3 – March, April, May
Q4 – June, July, August

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	1924.17M	73.22 %
Direct	406.69M	15.48 %
Distributor	297.18M	11.31 %



Insights:

- Retailer helped to bring the maximum gross sales (73.22%).
- Distributer makes the least contribution in gross sales (11.31%).

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	drnk
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

Insights:

Each division has a product with variations that show up twice in the top three products for that division.

Division: N & S

701.37K



AQ Pen Drive 2
IN 1
A6720160103

688K



AQ Pen Drive
DRC
A6818160202

676.25K



AQ Pen Drive
DRC
A6819160203

Premium

Plus

Premium

Division: P & A

428.5K



AQ Gamers Ms
A2319150302

Standard 2

419.87K



AQ Maxima Ms
A2520150501

Standard 1

419.47K



AQ Maxima Ms
A2520150504

Plus 2

Division: PC

17.43K



AQ Digit
A4218110202

Standard Blue

17.28K



AQ Digit
A4218110208

Plus Red

17.28K



AQ Velocity
A4319110306

Premium
Misty
Green



Thank you