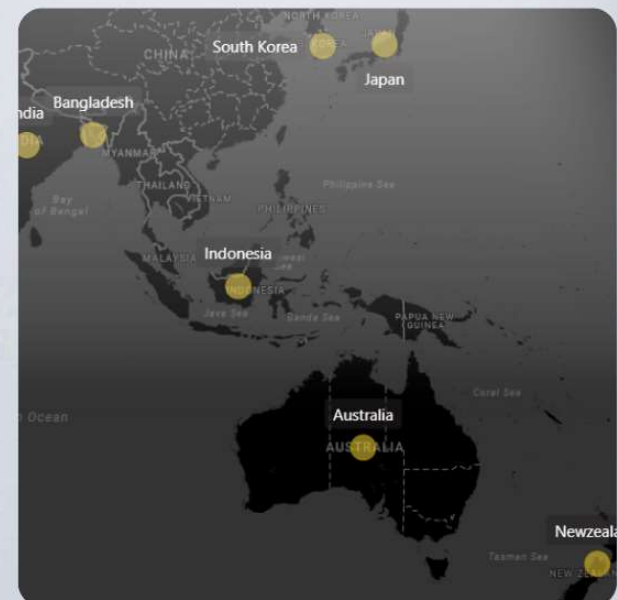




Ad-hoc Insights

SQL Project -1



Presented by Rahul

Agenda

- ☐ Problem Scenario
- ☐ Database Overview
- ☐ Given Challenges
- ☐ Query Results & Visualization with Insights

❑ Problem Scenario







Tony Sharma





❑ Database Provided By Code Basics :



Note: The above data is only for fiscal year 2020 to 2021.

2019 September to 2020 august. **[Fiscal year 2020]**

2020 September to 2021 august. **[Fiscal year 2021]**

Challenges :



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
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

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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

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product
total_sold_quantity
rank_order

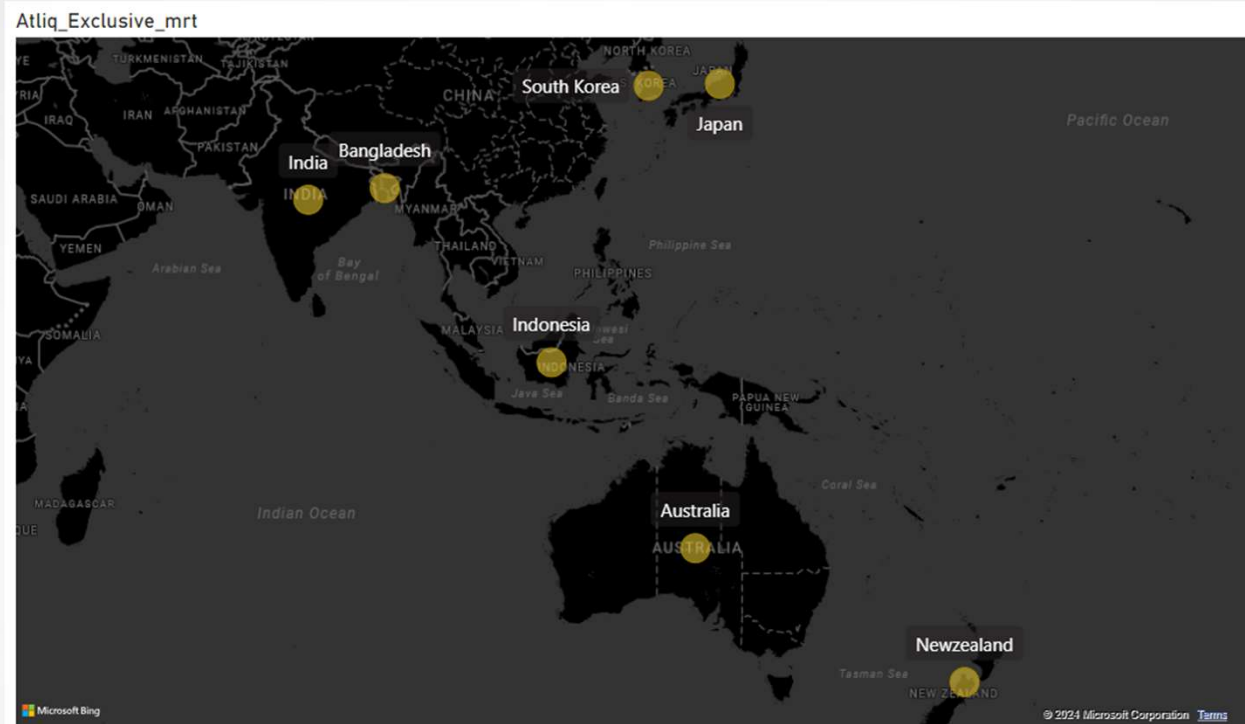
Request 1 :

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

Output:

Atliq_Exclusive_mrt
India
Indonesia
Japan
Philippines
South Korea
Australia
Newzealand
Bangladesh

Insights:



- There are 8 countries where "ATLIQ Exclusive" operates its business in the APAC region.

Request 2 :

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

The final output contains these fields,

unique_products_2020

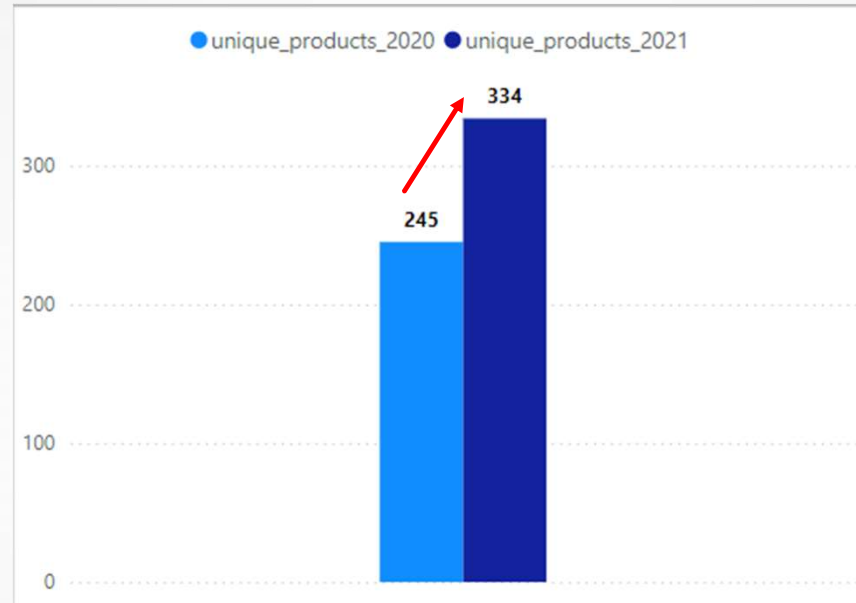
unique_products_2021

Percentage Change

Output:

unique_products_2020	unique_products_2021	percentage_chg
245	334	36.33

Insights:



36.33%
Increase

- For the FY 2020 Our New Products Count is 245 but in FY we increased our new product count to 334 .It is good signs we are continuously introducing new products to the market.

Request 3 :

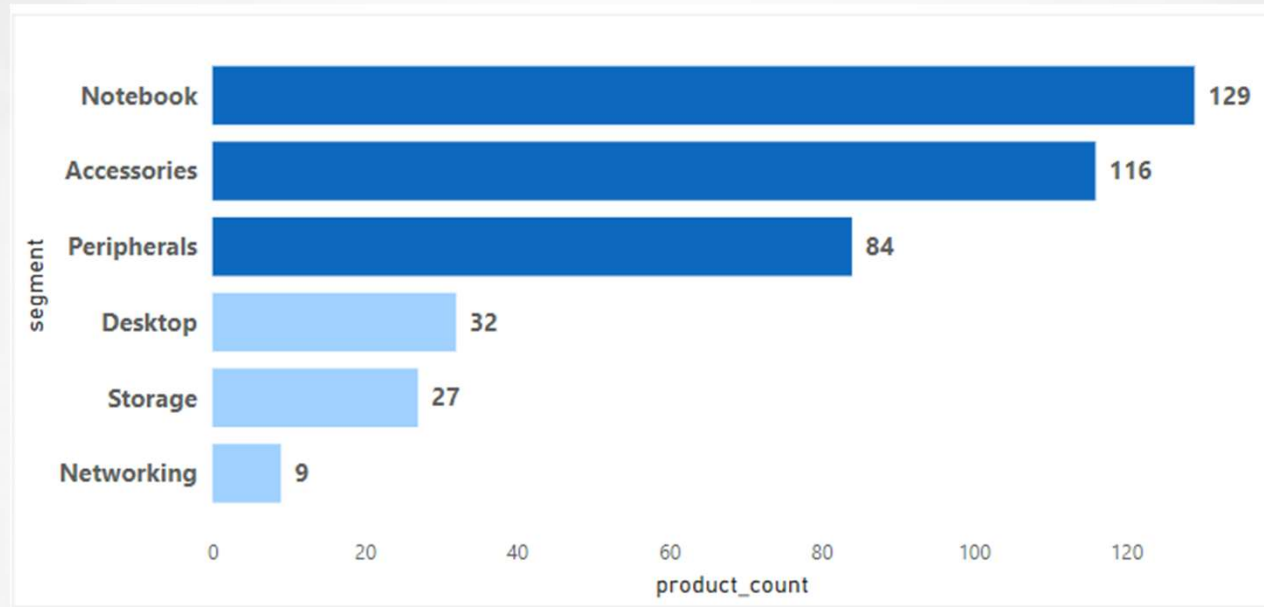
3. Provide a report with all the unique product counts for each segment and sort them in descending order of product counts.

The final output contains 2 fields,
segment
product count

Output:

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

Insights:



- Coming to segment wise Notebook , Accessories , Peripherals are top Segments based on new products count . And we need to focus on Desktop ,Storage , Networking Segments in coming years.

Request 4 :

4. 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

Output:

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	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 ↑
Total	245	334	89

- **Accessories is the most increased Segment in new products in 2021 compared to 2020. But Storage and Networking segments are less incremental and we need to focus on them.**

Request 5 :

5. Get the products that have the highest and lowest manufacturing costs.

The final output should contain these fields,
product code
product
manufacturing cost

Output:

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

Insights:

Highest

241.43

Max-Manufacturing Cost

AQ Home Alline 1 Gen 2

Lowest

0.89

Min-Manufacturing Cost

AQ Master wired X 1 MS

- For the Product **AQ Home Alline 1 Gen 2** we spent more on manufacturing and for the product **AQ Master wired X 1 MS** we spent less on manufacturing.

Request 6 :

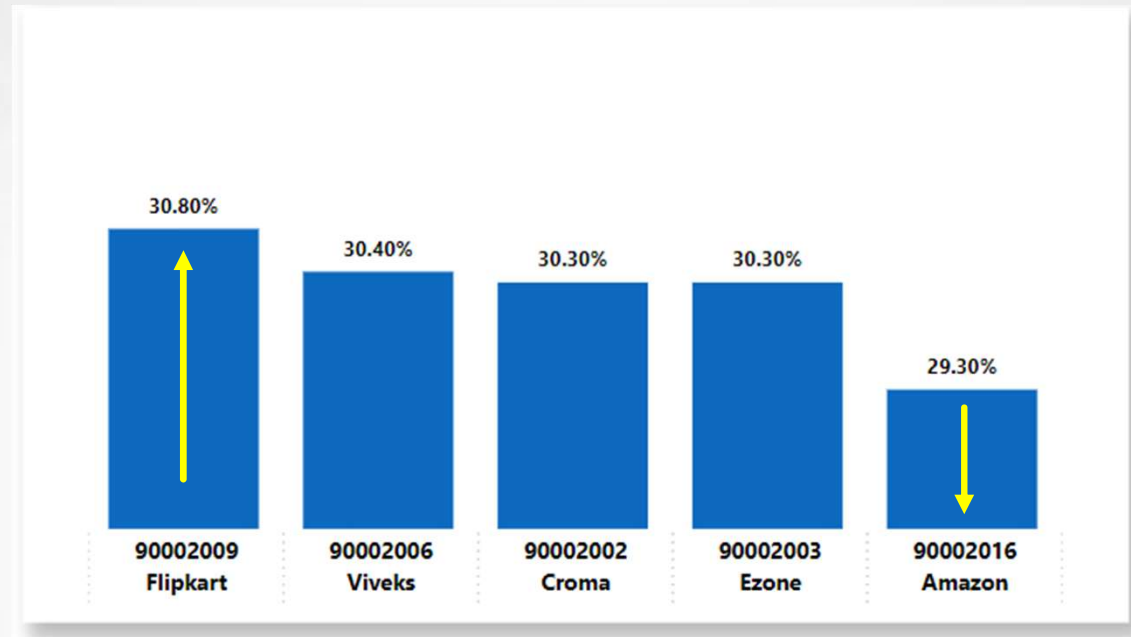
6. Generate a report which contains the top 5 customers who received an average high pre invoice discount pct for the fiscal year 2021 and in the Indian market.

The final output contains these fields,
customer code
customer
average discount percentage

Output:

customer_code	customer	avg_discount_pct
90002009	Flipkart	0.308
90002006	Viveks	0.304
90002002	Croma	0.303
90002003	Ezone	0.303
90002016	Amazon	0.293

Insights:



- In the Indian market **Flipkart** customer receives highest pre-invoice discount percentage for the fiscal year 2021.
- **Amazon** receives lowest pre-invoice discount percentage for the fiscal year 2021.

Request 7 :

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

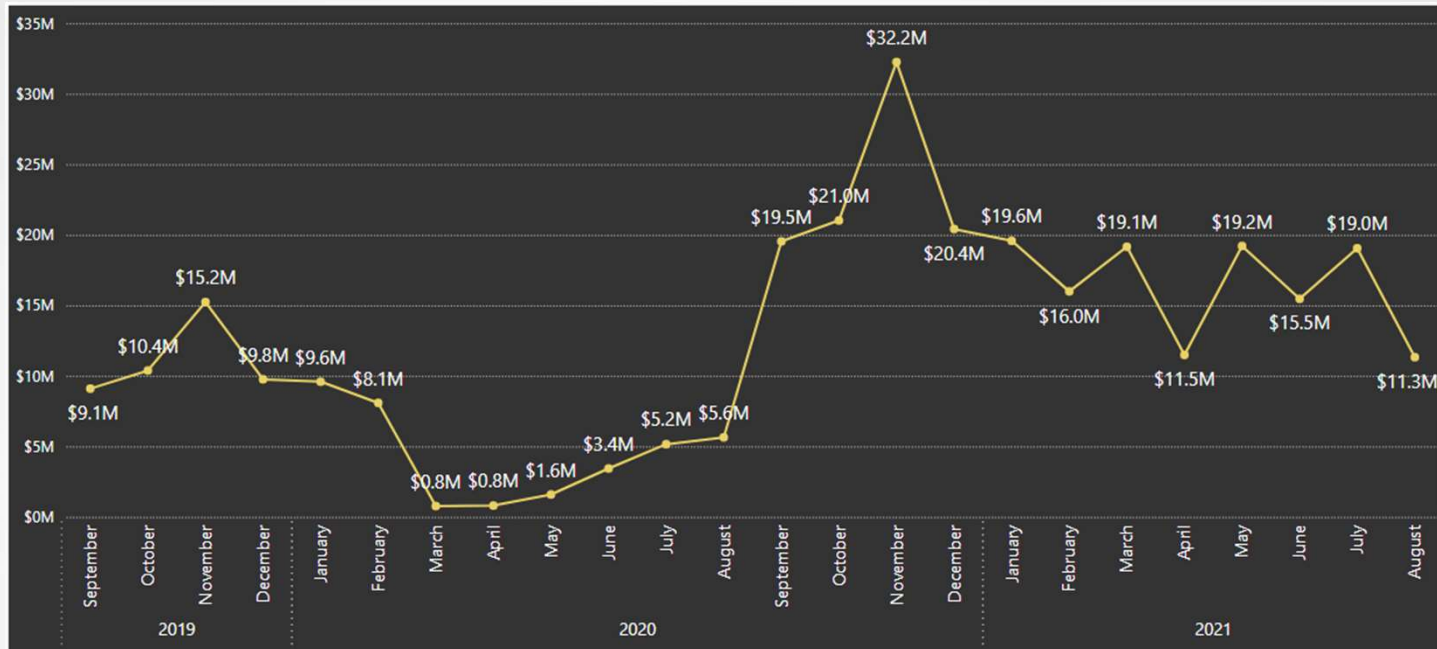
Year

Gross sales Amount

Output:

date	month_name	year	gross_sales_amt
2019-12-01	December	2019	9755795.06
2019-11-01	November	2019	15231894.97
2019-10-01	October	2019	10378637.60
2019-09-01	September	2019	9092670.34
2020-04-01	April	2020	800071.95
2020-08-01	August	2020	5638281.83
2020-12-01	December	2020	20409063.18
2020-02-01	February	2020	8083995.55
2020-01-01	January	2020	9584951.94
2020-07-01	July	2020	5151815.40
2020-06-01	June	2020	3429736.57
2020-03-01	March	2020	766976.45
2020-05-01	May	2020	1586964.48
2020-11-01	November	2020	32247289.79
2020-10-01	October	2020	21016218.21
2020-09-01	September	2020	19530271.30
2021-04-01	April	2021	11483530.30
2021-08-01	August	2021	11324548.34
2021-02-01	February	2021	15986603.89
2021-01-01	January	2021	19570701.71
2021-07-01	July	2021	19044968.82

Insights:



- According to this graph in **2020 march** we got lowest gross sales because of covid pandemic. But immediately gross sales increased from **2020 august** and peaked at **2020 September** it is a good sign.

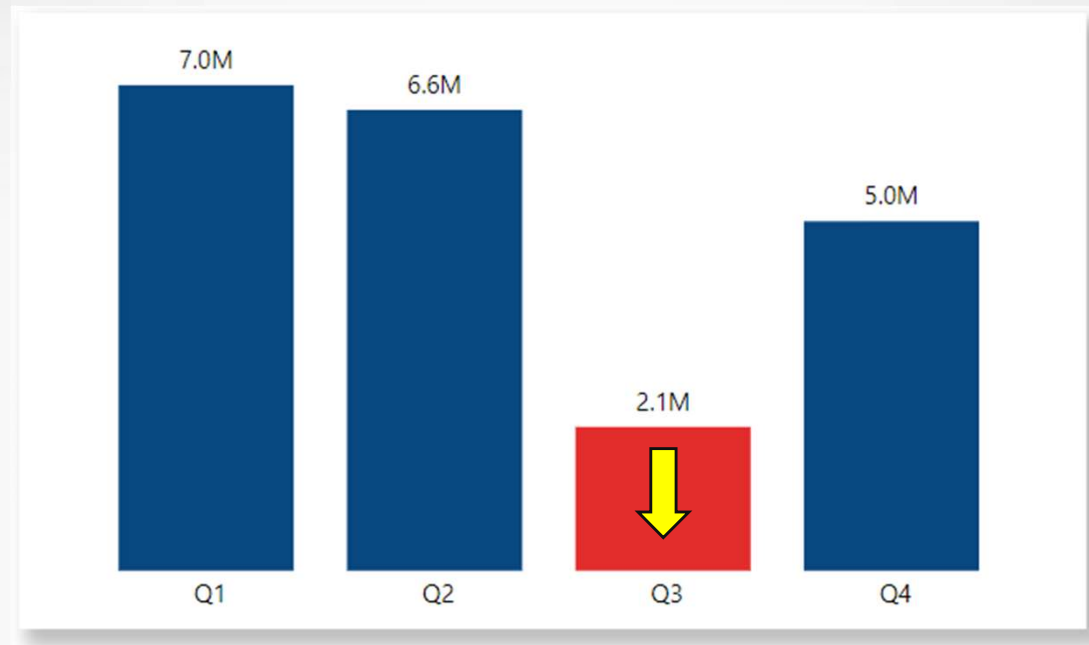
Request 8 :

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.

Output:

quarter	total_sold_quantity
Q1	7005619
Q2	6649642
Q4	5042541
Q3	2075087

Insights:



- For the year 2020 Quarter 1 got maximum sold quantity
- And Quarter 3 got minimum sold quantity .

Request 9 :

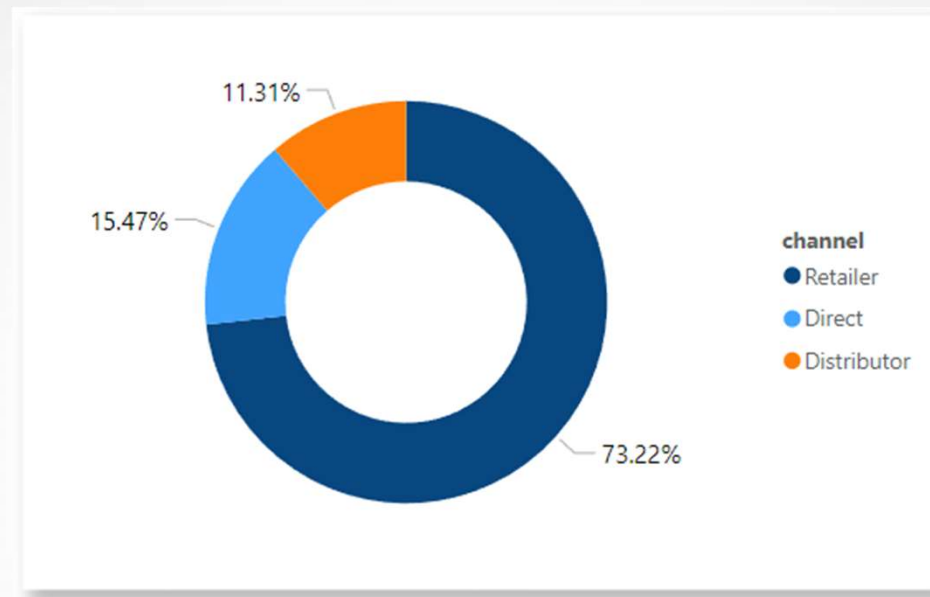
9. Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution?

The final output contains these
fields,
channel gross sales Million,
percentage

Output:

channel	gross_sales_mln	percentage
Retailer	1924.17 M	73.22
Distributor	297.18 M	11.31
Direct	406.69 M	15.47

Insights:



- For the FY 2020 **Retailer** channel helped to bring more gross sales with 73.22% contribution followed by **Direct** channel with 15.47%.

Request 10 :

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

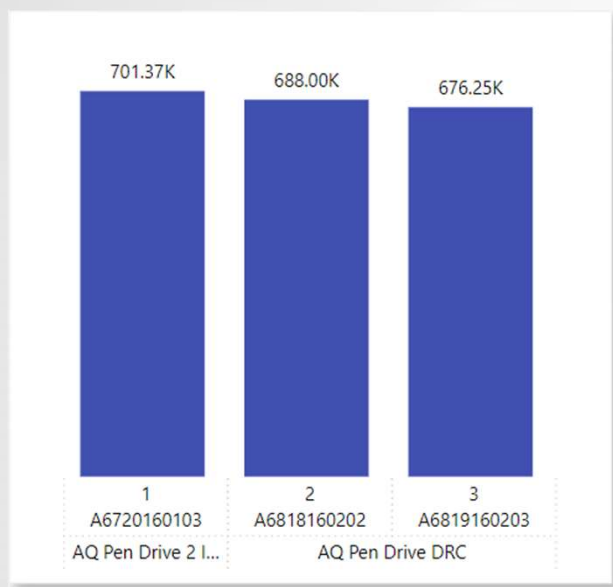
rank order

Output:

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

Insights:

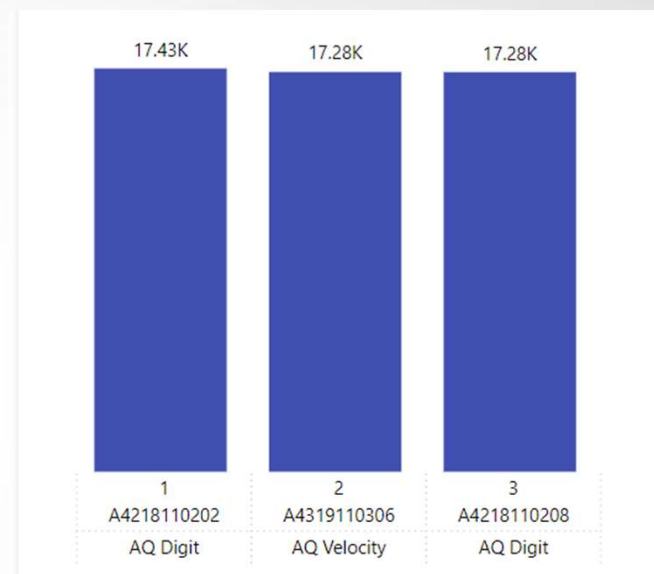
N & S



P & A



PC



- The top 3 selling products in **N & S** Division AQ Pen Drive 2 in 1 , AQ pen Drive DRC , AQ Pen Drive DRC.
- The top 3 selling products in **P & A** Division AQ Games MS , AQ Maxima MS , AQ maxima MS.
- The top 3 selling products in **PC** AQ Digit, AQ Velocity, AQ Digit.

End Of Challenge



Mentors:



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[Peter Pandey]



HEMANAND VADIVEL
[Tony Sharma]

