SQL
Case Study-

Consumer Goods
Ad-hoc Insights

By Jasleen Kaur

Introduction

➢ AtliQ Technology is a Hardware manufacturing industry that started in the year 2018 and running successfully till now.

➢ They manufacture Electronic Hardware such as Mouse, keyboards, Laptops, printers, etc., and sell to customers (both Brick & Mortar and Online stores).

Objective of the case study

➢ AtliQ Technologies has started its business expansion across many other countries in the world.

➢ They record all the business transaction information in their database.

➢ The management noticed that they do not get enough insights to make quick and smart data-informed decisions.

➢ The CEO of the company wants to enhance the business growth and has provided 10 ad-hoc requests to be fulfilled by data analysts.
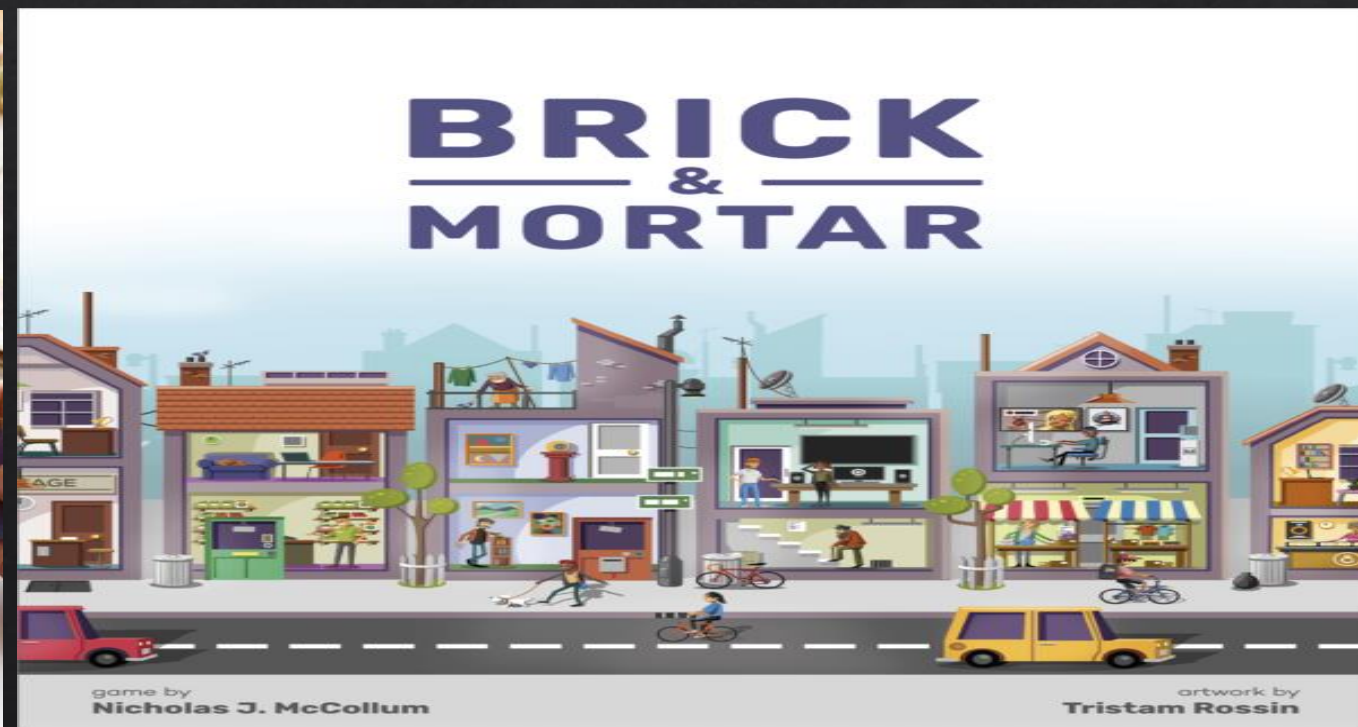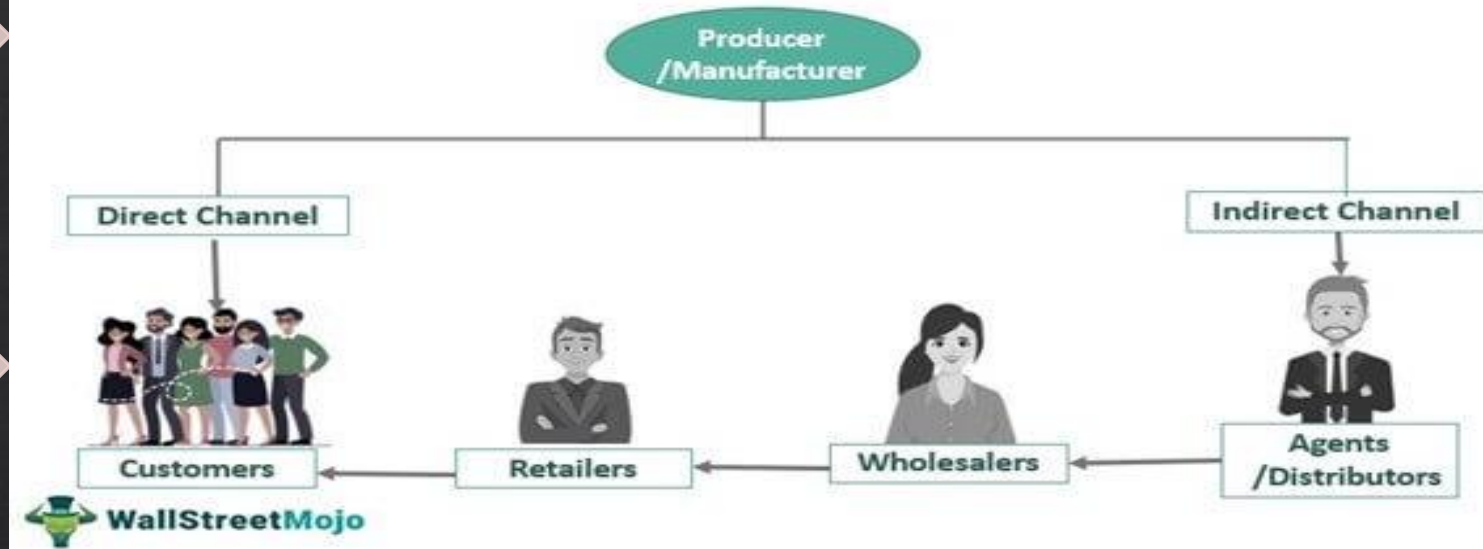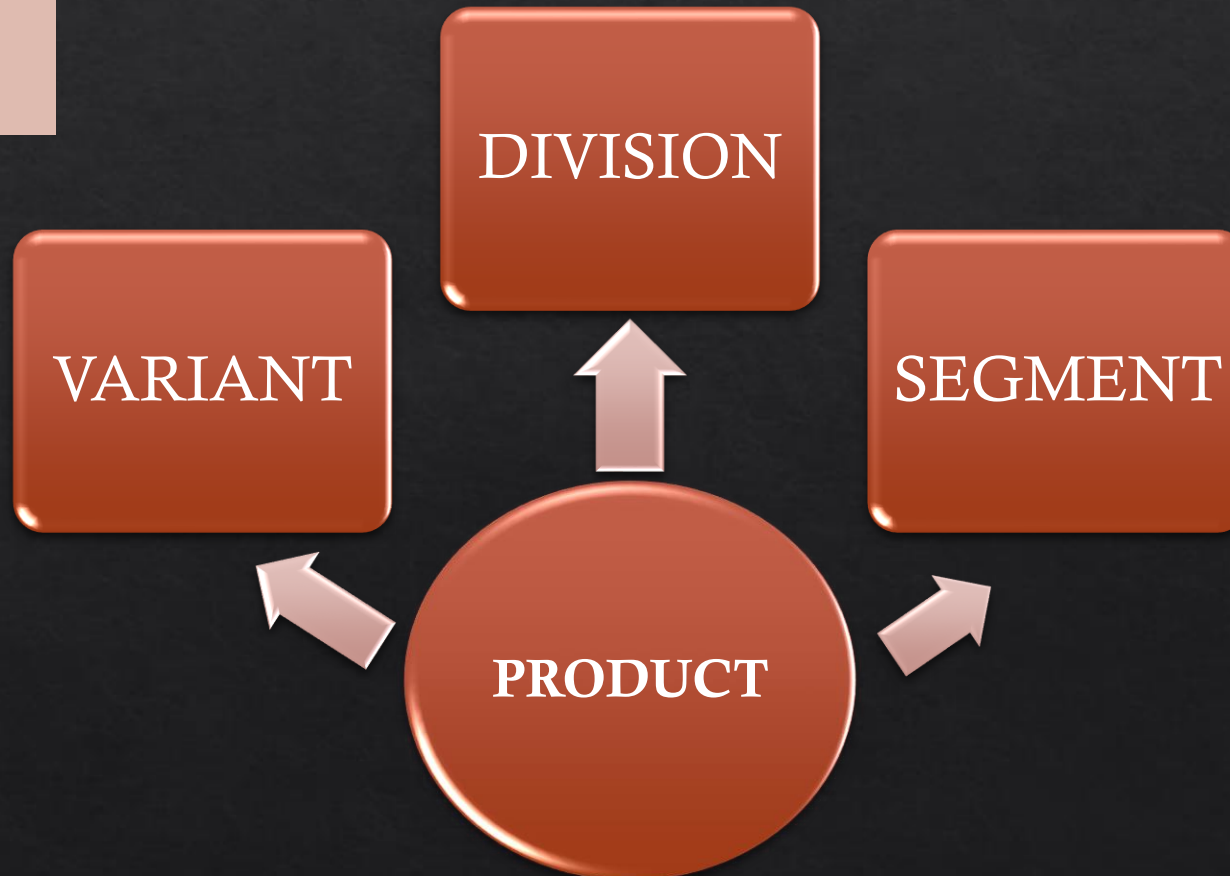
Platform	• Brick & Mortar • E-Commerce
Channel	• Retailers • Direct • Distributors

Distribution Channel

Producer /Manufacturer

Direct Channel — Indirect Channel

Customers ← Retailers ← Wholesalers ← Agents /Distributors

WallStreetMojo

E-Commerce

COUTLOOT

BRICK & MORTAR

game by Nicholas J. McCollum

artwork by Tristam Rossin

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

SQL Result

market
India
Indonesia
Japan
Philiphines
South Korea
Australia
Newzealand
Bangladesh

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

SQL Result

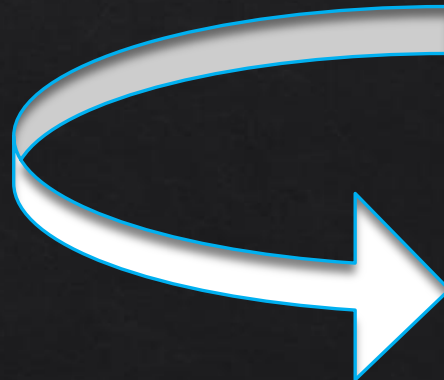| unique_products_2020	unique_products_2021	percentage_change
245	334	36.33

36.33
Percentage Change

245
Unique Products_2020

334
Unique Products_2021

3. Provide a report with each segment's unique product counts.

SQL Result

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

Segment WIse Product Count

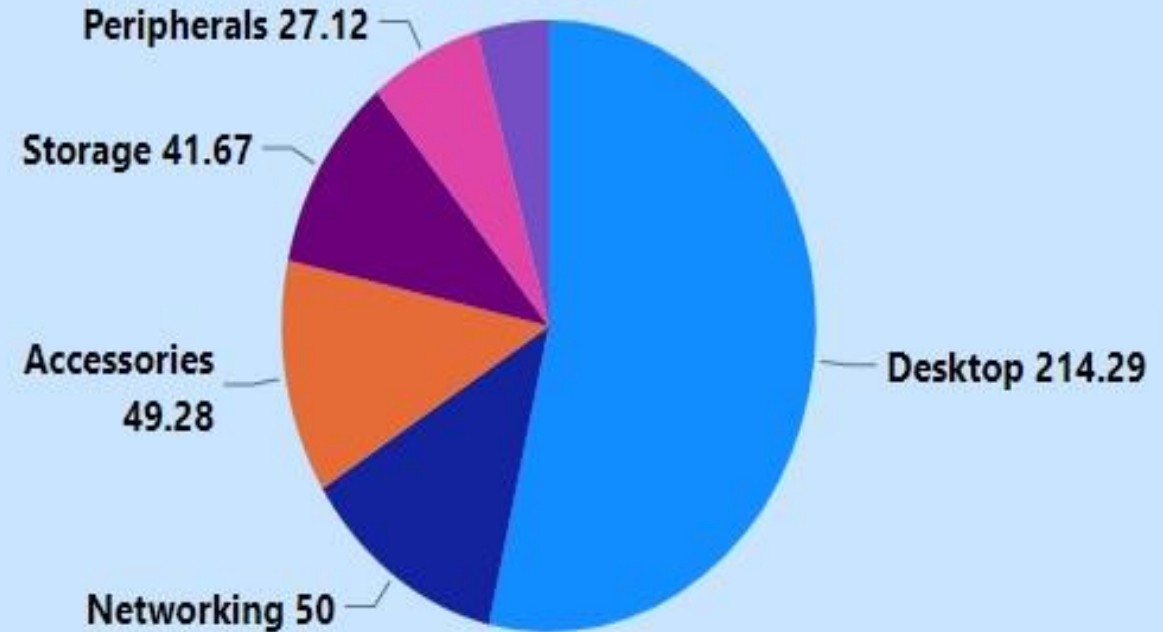| Segment	Count
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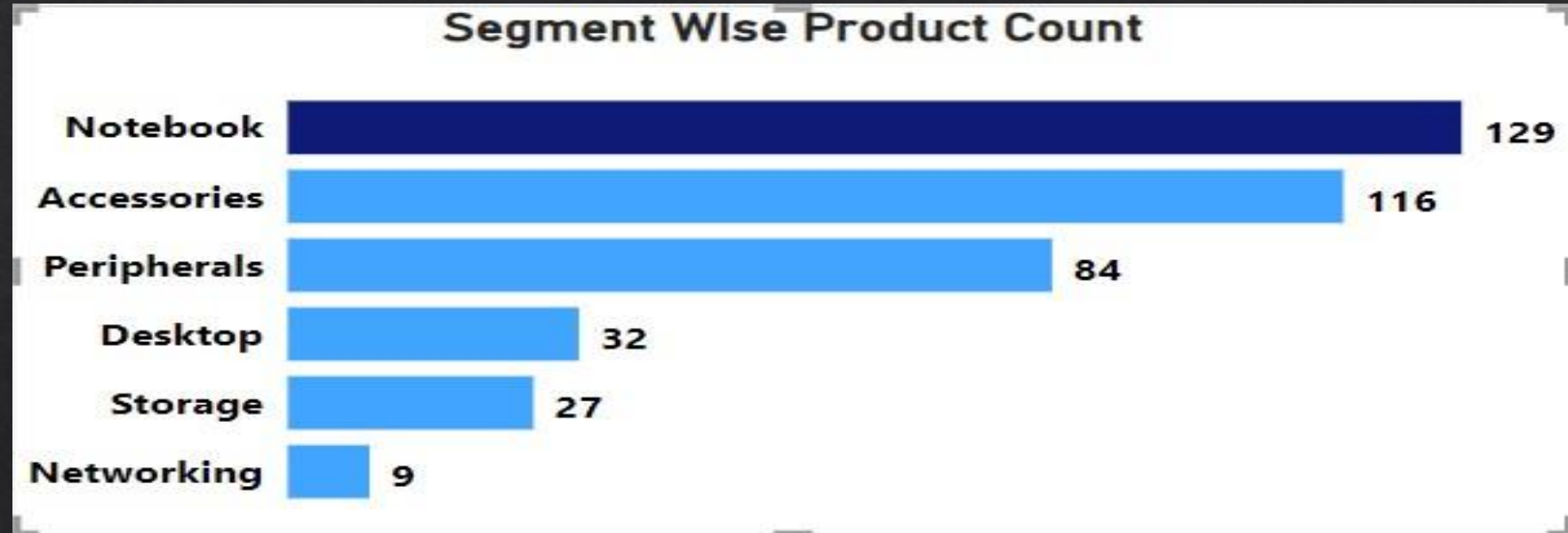
➢ Across all 6 segments, product count ranged from 9 to 129.

➢ At 129, Notebook had the highest product count and was 1,333.33% higher than Networking, which had the lowest product count at 9.

➢ Notebook accounted for 32.49% of total product count.

4. Which segment had the most increase in unique products in 2021 vs 2020?.

SQL Result

segment	product_count_2020	product_count_2021	percentage_change
Desktop	7	22	214.29
Networking	6	9	50.00
Accessories	69	103	49.28
Storage	12	17	41.67
Peripherals	59	75	27.12
Notebook	92	108	17.39

- Peripherals 27.12
- Storage 41.67
- Accessories 49.28
- Desktop 214.29
- Networking 50

➢ Desktop segment accounted for 214.29% change from 2020 to 2021.

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

SQL Result

product_code	product	avg_manufacturing_cost
A6120110206	AQ HOME Allin1 Gen 2	240.54
A2118150101	AQ Master wired x1 Ms	0.91

Highest Manufacturing Cost :
240.54 $

A6120110206	AQ HOME Allin1 Gen 2	240.54
product_code	product	Avg Manufacturing Cost

Lowest Manufacturing Cost :
0.91 $

A2118150101	AQ Master wired x1 Ms	0.91
product_code	product	Avg Manufacturing Cost

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.
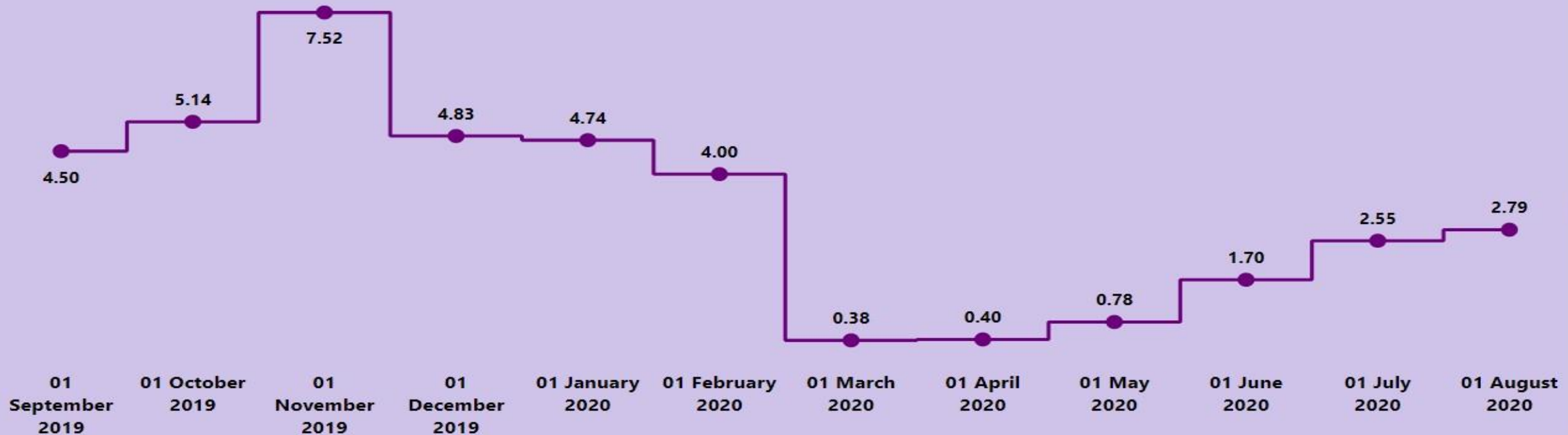
SQL Result

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

Flipkart
30.83

Viveks
30.38

Ezone
30.28

Croma
30.25

Amazon
29.33

7. Get the complete report of the Gross sales amount for the customer "Atliq Exclusive" for each month.

For FISCAL YEAR : 2020

➢ **Highest Performing Month (7.52 M): November 2019, It can be because of the festive season.**

➢ **Lowest Performing Month (0.38 M): March 2019, The reason can be the emergence of Covid-19 which did not earn a huge amount of sales.**

7. Get the complete report of the Gross sales amount for the customer "Atliq Exclusive" for each month.
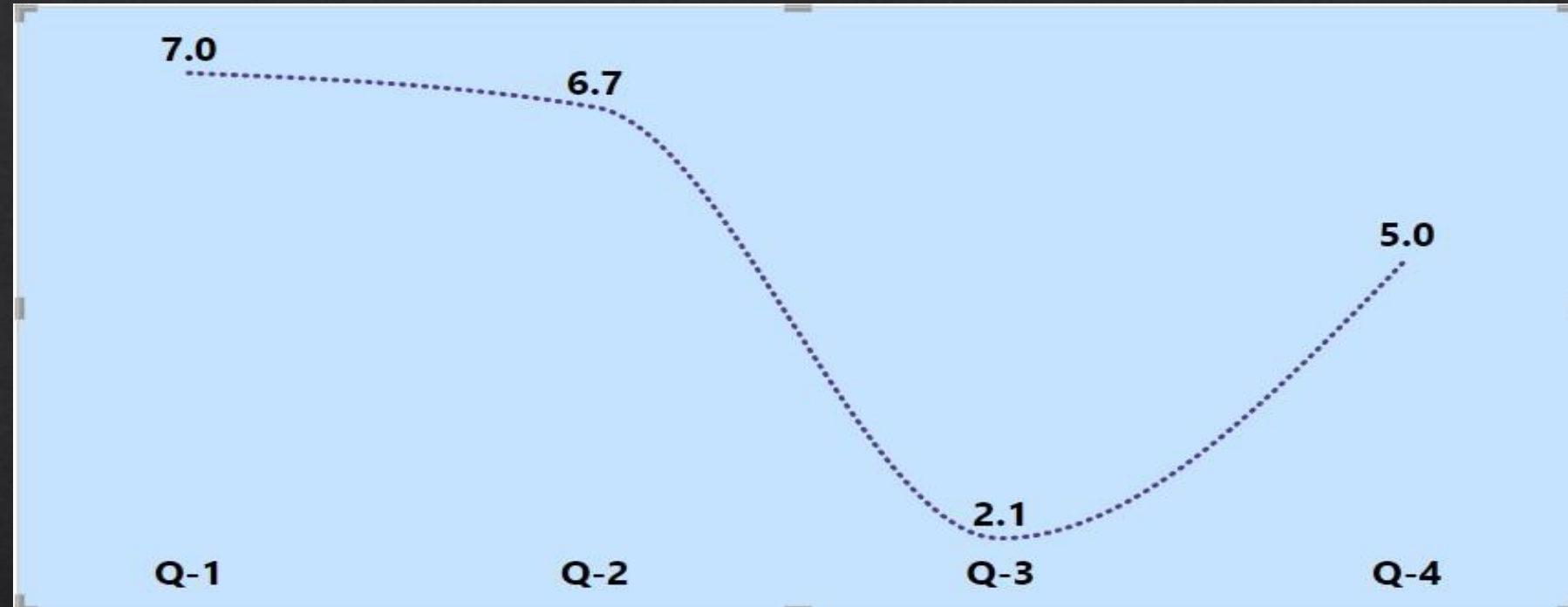

For FISCAL YEAR : 2021

➢ **Highest Performing Month (20.46 M): November 2020**
➢ **Lowest Performing Month (7.18 M): August 2021**

8. In which quarter of 2020, got the maximum total_sold_quantity?.

SQL Result

qtr	total_sold_quantity
Q-1	7.01M
Q-2	6.65M
Q-4	5.04M
Q-3	2.08M

**Q-1** (Sep19,Oct19,Nov19) ,**Q-2** (Dec19,Jan20,Feb20)
Q-3 (Mar20,Apr20,May20),**Q-4** (Jun20,Jul20,Aug20)

➤ Q-1 had the highest sold quantity at 7.01 M, followed by Q-2, Q-4, and Q-3.
   Reason can be : Festive Season.
➤ **Q-3** saw huge **decline** in sales. **Reason can be : Covid – 19.**
➤ Significant **increase** in **Q-4**.**Reason can be**: Increased demand for devices such as Desktops, Notebooks due to **schools/colleges shifted to online learning**.
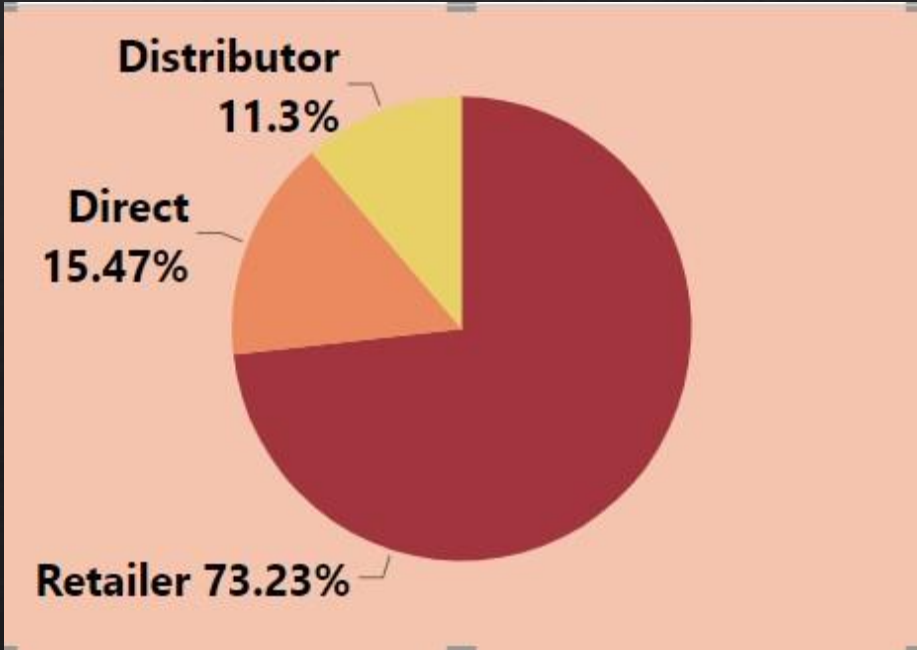
9. Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution?.

SQL Result

channel	gross_sales_mln	percentage
Retailer	1219.08	73.23
Direct	257.53	15.47
Distributor	188.03	11.30
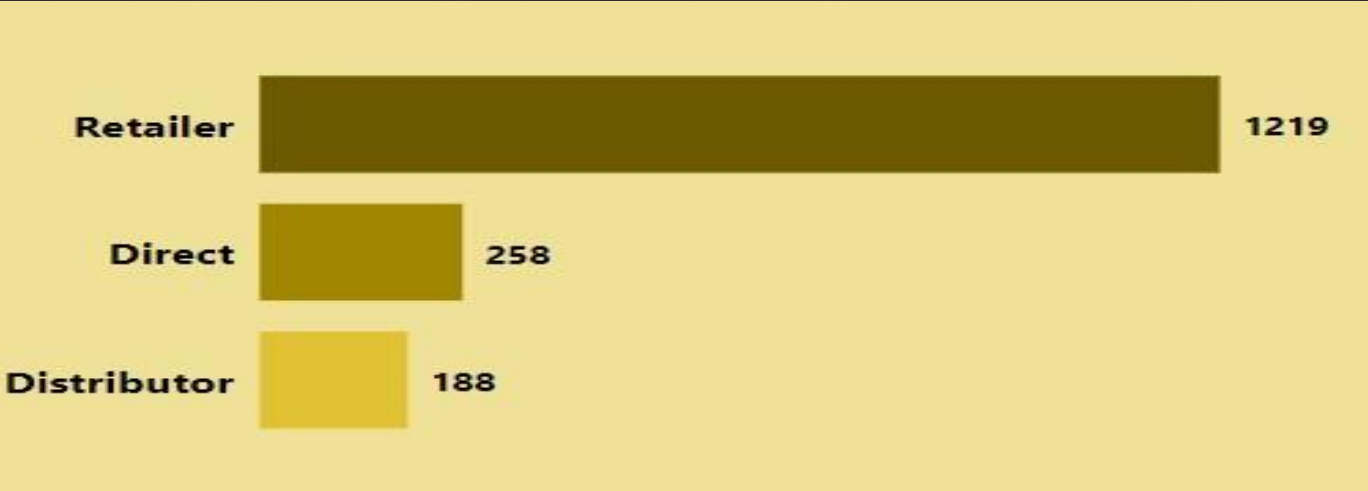
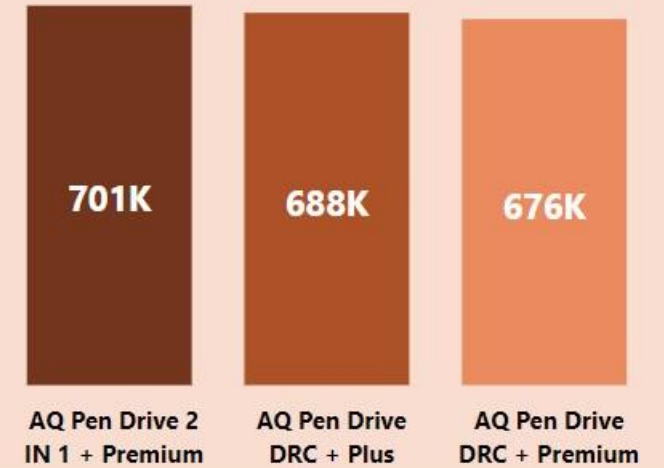➢ **Retailer** contributed to max. sales by 73.23%, followed by **Direct** at 15.47% and **Distributor** at 11.30%.

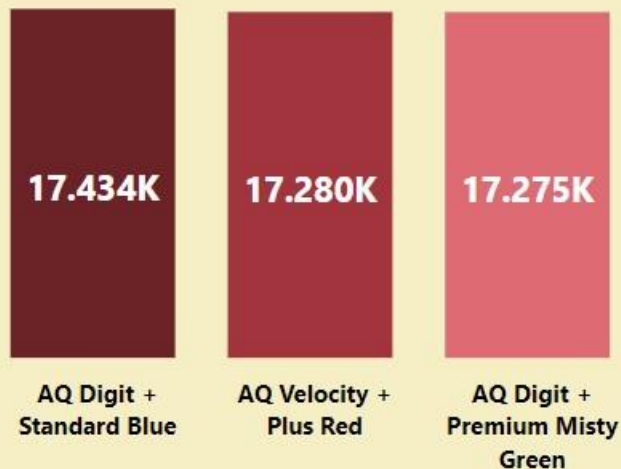# 10. Get the Top 3 products in each division that have a high total sold quantity in the fiscal year 2021.

Thank You