



Consumer Goods Ad_Hoc Insights

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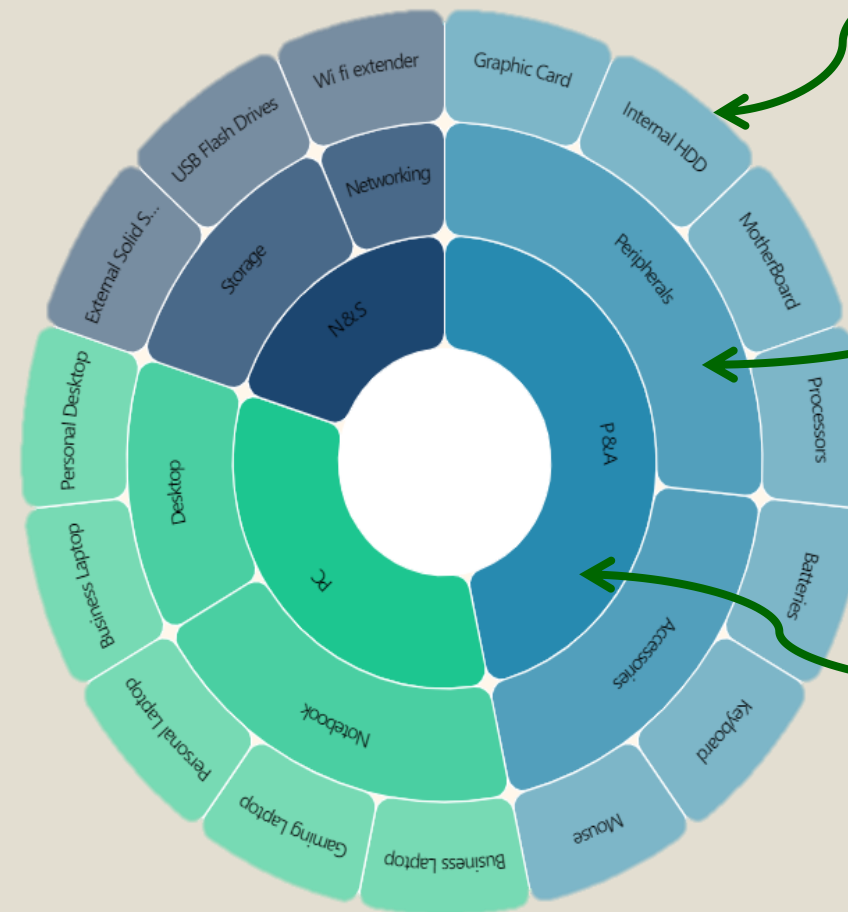


Objectives

- ❑ **Atliq Hardware** (fictitious corporation) is one of the major computer hardware manufacturers in India, with a strong presence in other nations.
- ❑ Nevertheless, the management did note that they **do not have sufficient insights** to make prompt, wise, and data-informed judgments.
- ❑ Plan **to expand** the data analytics team by adding junior data analysts.
- ❑ To assess candidates, Data analytics director, **Tony Sharma** plans to conduct a **SQL challenge** to evaluate both tech and soft skills.
- ❑ The company seeks insights for **10 ad hoc** requests.

Company Details

Atliq Hardware is a computer hardware and accessory manufacturer.

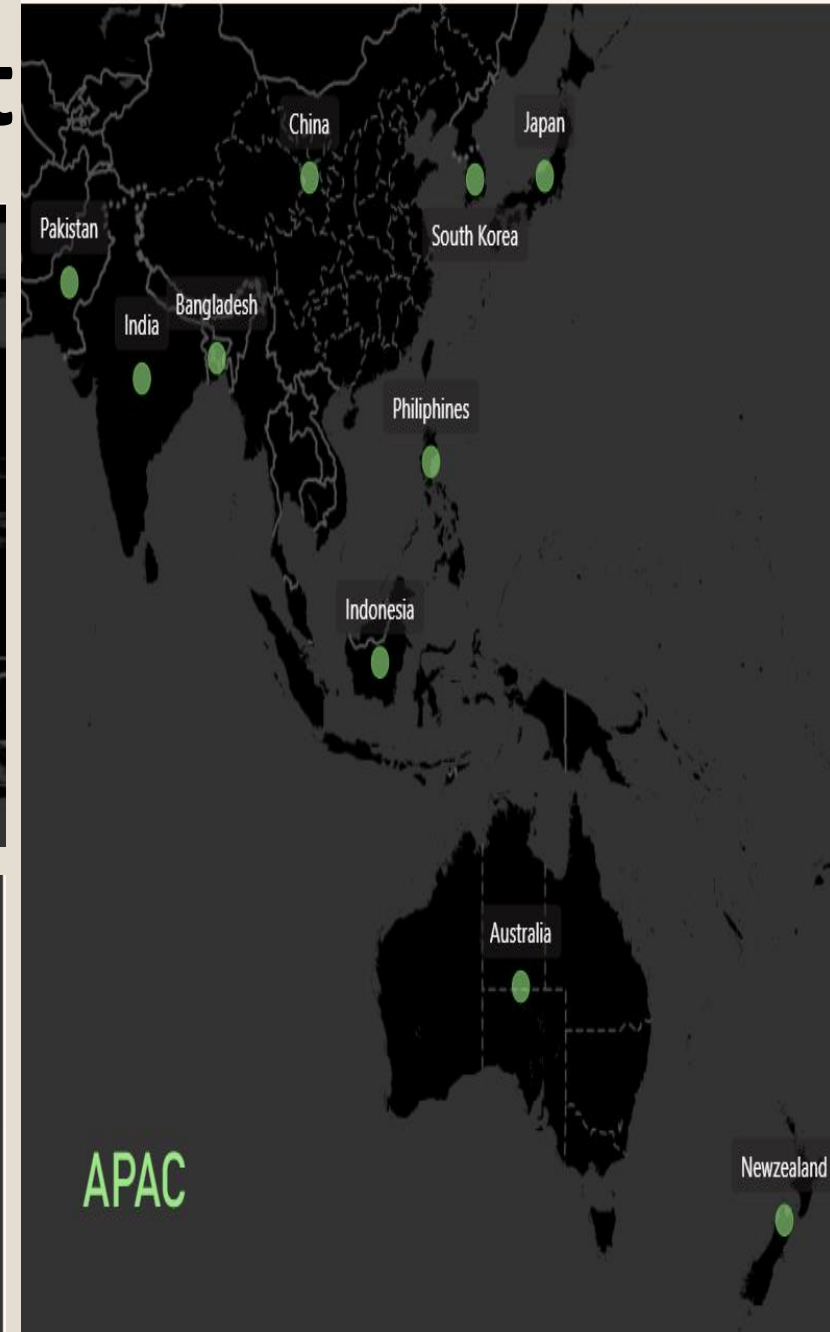
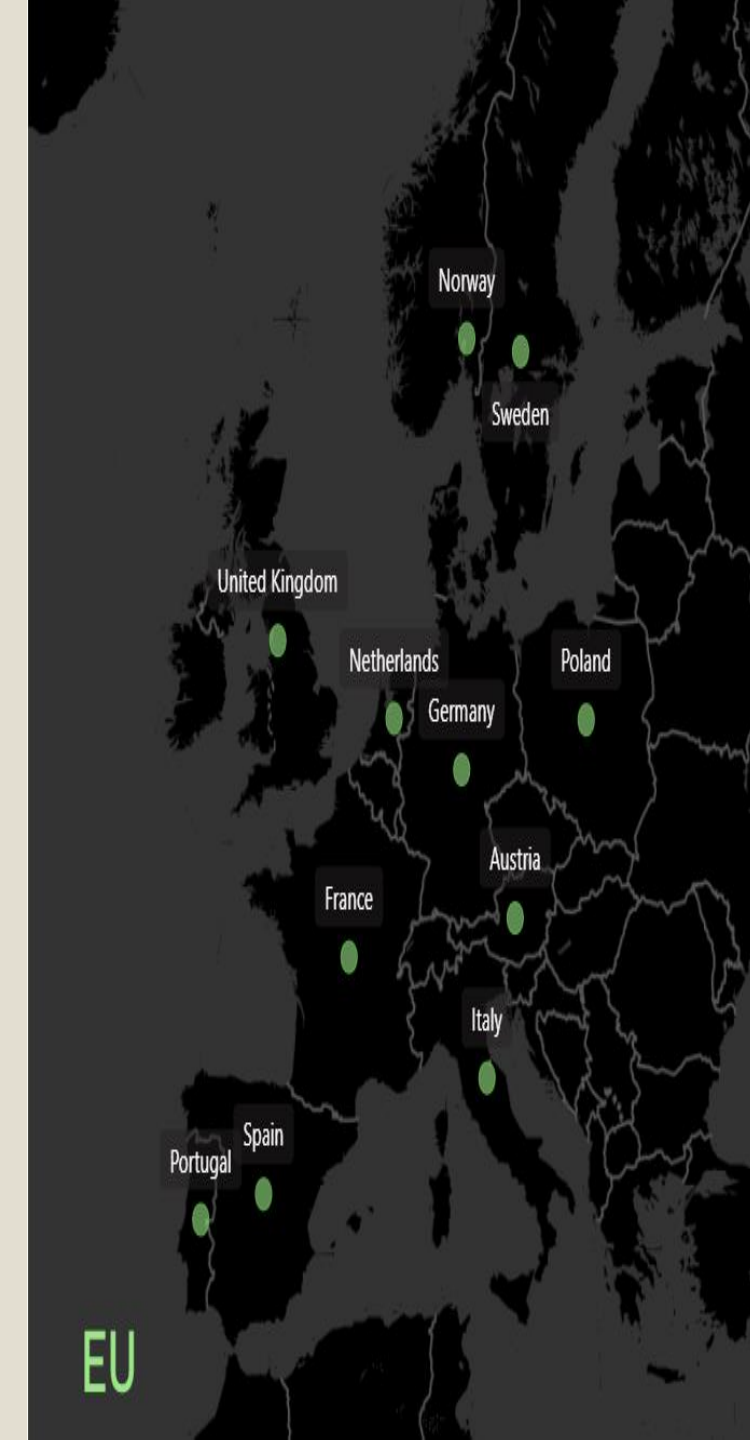


Category

Segment

Division

Company's Market



Questions 1.

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

Output:

	list_of_markets
▶	Australia
	Bangladesh
	India
	Indonesia
	Japan
	Newzealand
	Philiphines
	South Korea

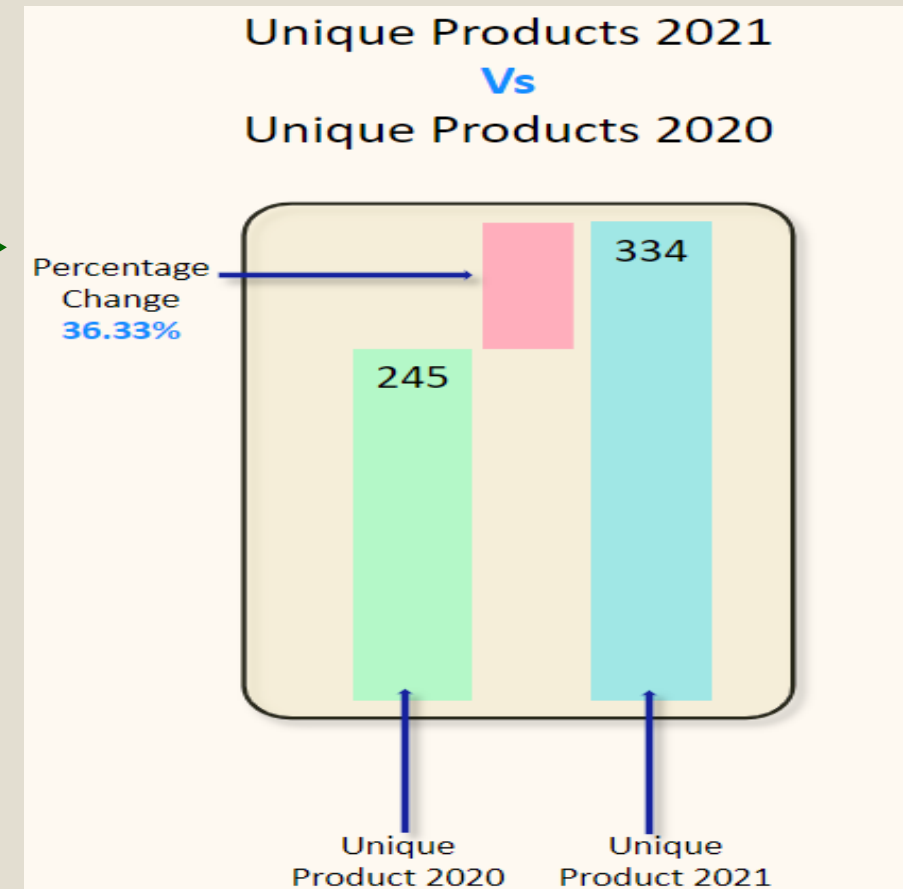


Questions 2. What is the percentage of unique product increase in 2021 vs. 2020? The final output contains these fields,

unique_products_2020
unique_products_2021
percentage_chg

Output:

unique_product_2020	unique_product_2021	percentage_chg
245	334	36.33



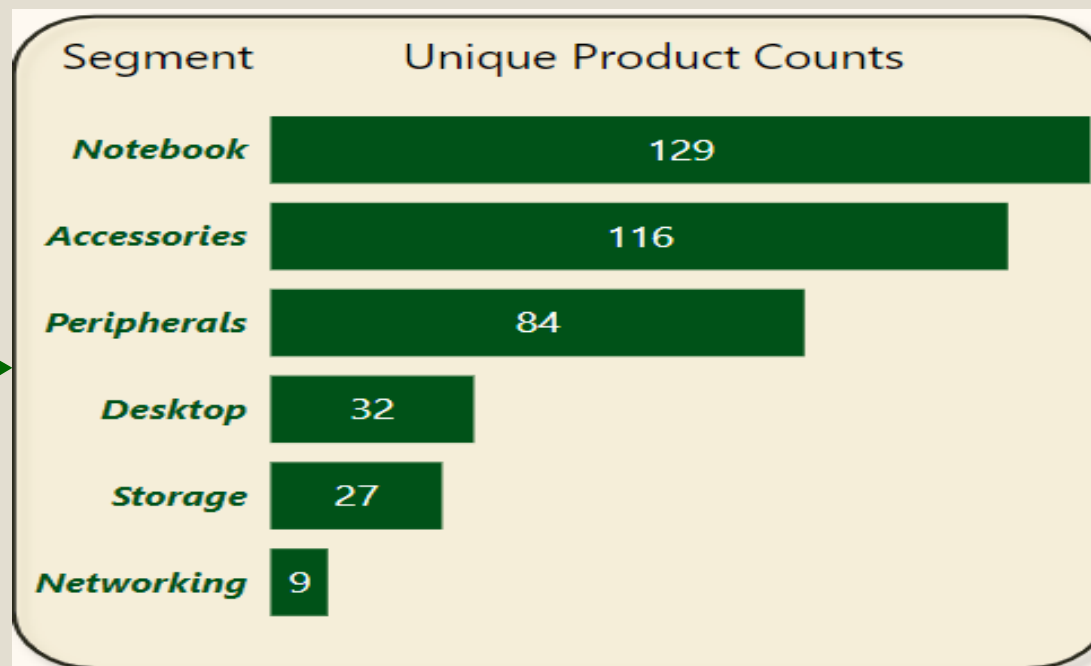
Insight: Demand and production both increased.

Questions 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

Unique **product counts** for each **segment**



Insight:

- **Segments:** notebooks, accessories, and peripherals are showing significant manufacturing growth as compared to desktops, storage, and networking.
- Notebooks, accessories, and peripherals constitute 83% of the total manufactured product.

Segment	AVG MC	AVG GS	Gross Margin
Networking	\$1,473.32	\$4,953.04	70.25%
Peripherals	\$540.92	\$1,814.41	70.19%
Notebook	\$674.68	\$2,255.44	70.09%
Accessories	\$543.74	\$1,816.42	70.07%
Desktop	\$767.44	\$2,553.72	69.95%
Storage	\$897.70	\$2,986.82	69.94%

AVG MC: Average Manufacturing Cost

AVG GS: Average Gross Sales

Bottom 3 Segment

Desktop

32

Storage

27

Networking

9

Suggestions :

- Package Deal
- Customer Services
- Free Vouchers
- Student Discount
- Cash Back
- Gift cards
- Memberships

Questions 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

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

Unique product difference per **segment** from 2020 to 2021

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 had the **largest increase** in production.
- Storage and networking are experiencing **slower production growth** than other segments.

Questions 5.

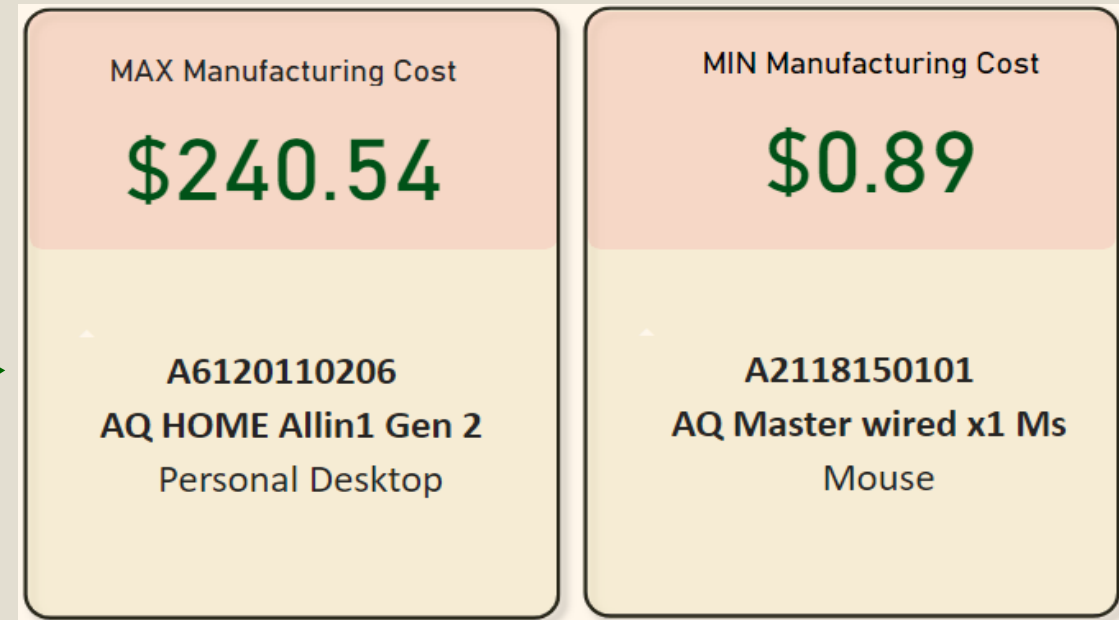
Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields,

product_code
Product
manufacturing_cost

Output:

Products having the **highest** and **lowest** manufacturing costs

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



Insight:

- **Mouse:** AQ Master wired x1 Ms (**Variant: Standard1**) has the lowest manufacturing cost.
- **Personal Desktop:** AQ Home Allin1 Gen2 (**Variant: Plus3**) has the highest manufacturing cost.

Questions 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

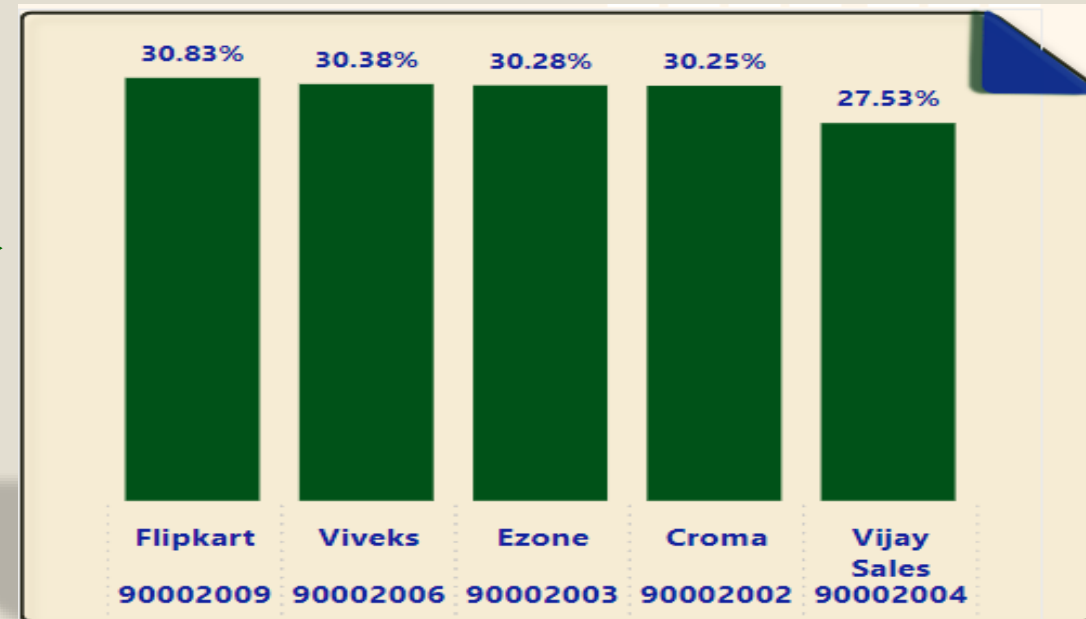
average_discount_percentage

Output:

customer_code	customer	average_discount_percentage
90002009	Flipkart	0.30830000
90002006	Viveks	0.30380000
90002003	Ezone	0.30280000
90002002	Croma	0.30250000
90002016	Amazon	0.29330000



Top 5 Indian customers with highest average discount percentage for **FY 2021**



Customer & Customer code

Insight:

- The **largest** average pre-invoice discount was given to **Flipkart**.
- The **least** average pre-invoice discount was given to **Amazon**.

Questions 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:

Insight:

- The **lowest** Gross sales total for both fiscal years is in **March(2020)**.
- The **highest** Gross sales total for both fiscal years is in **November (2020)**.
- **73.8%** of the total Gross sales figure is in FY2021.

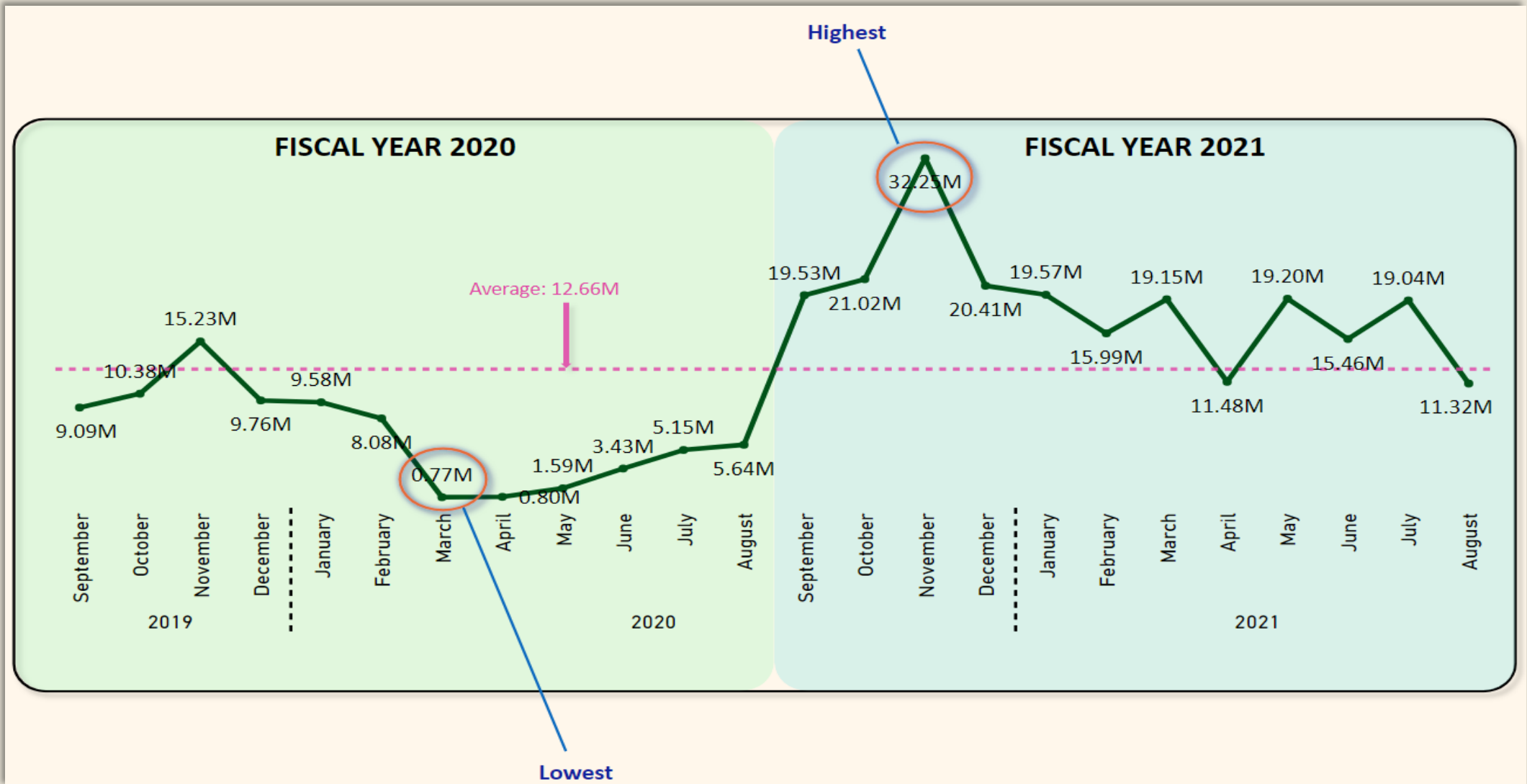
FY 2021
79.5 M

FY 2022
224.4 M

Month	fiscal_year	Gross_sales_amount
September 2019	2020	9092670.34
October 2019	2020	10378637.60
November 2019	2020	15231894.97
December 2019	2020	9755795.06
January 2020	2020	9584951.94
February 2020	2020	8083995.55
March 2020	2020	766976.45
April 2020	2020	800071.95
May 2020	2020	1586964.48
June 2020	2020	3429736.57
July 2020	2020	5151815.40
August 2020	2020	5638281.83
September 2020	2021	19530271.30
October 2020	2021	21016218.21
November 2020	2021	32247289.79
December 2020	2021	20409063.18
January 2021	2021	19570701.71
February 2021	2021	15986603.89
March 2021	2021	19149624.92
April 2021	2021	11483530.30
May 2021	2021	19204309.41
June 2021	2021	15457579.66
July 2021	2021	19044968.82
August 2021	2021	11324548.34

FY: Fiscal Year

Gross sales amount report for **Atliq Exclusive** by month



Reasons:

- COVID-19
- Global Chip shortage

Questions 8.

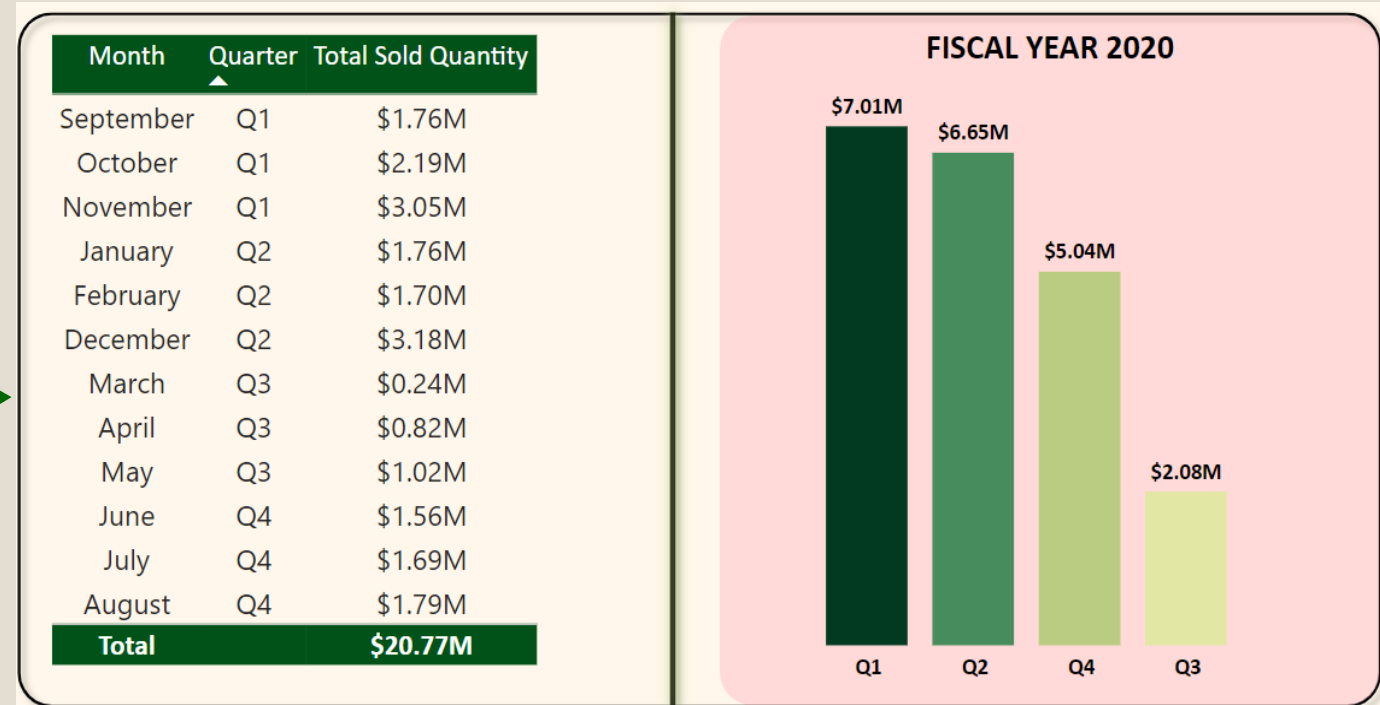
In which quarter of 2020, got the maximum total_sold_quantity? The final output contains these fields sorted by the total_sold_quantity,

Quarter
total_sold_quantity

Total sold quantity by **Quarter**

Output:

quarters	total_sold_quantity
Q1	7005619
Q2	6649642
Q4	5042541
Q3	2075087



Insight:

- **Quarter 1** of FY2020 saw the most units sold overall, while **Quarter 3** had the **fewest**.
- The highest and lowest overall sold quantity is in **December** and **March**.
- Quarter1 accounts for **approximately 34%** of the total sold quantity for FY 2020.

Questions 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

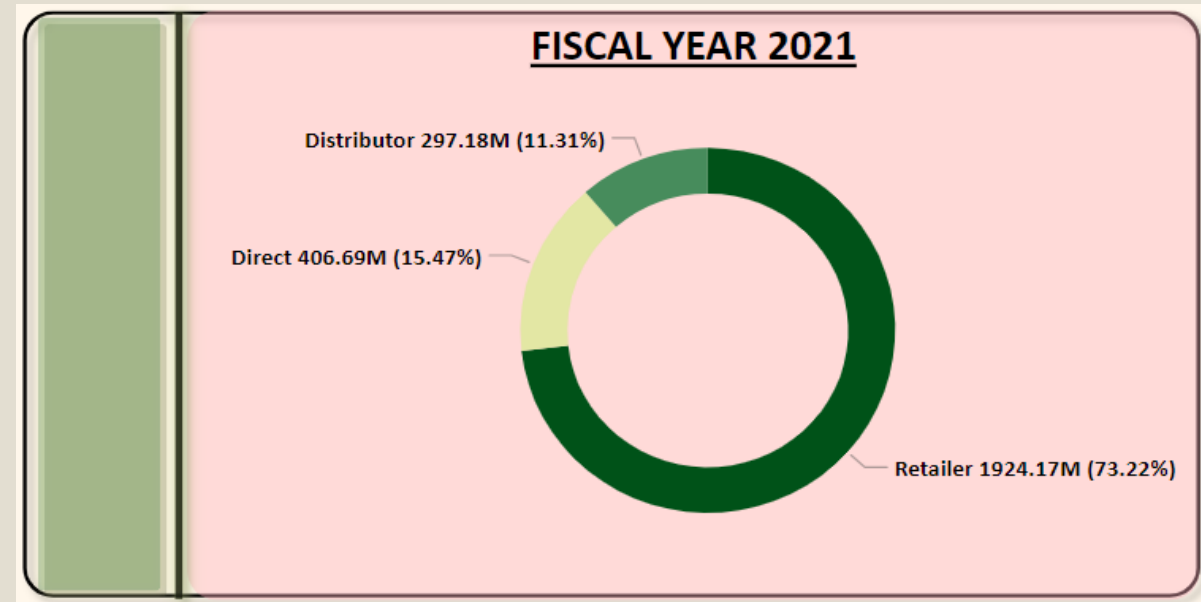
percentage

Output:

channel	Gross_sales_mln	percentage
Direct	406.69	15.48%
Distributor	297.18	11.31%
Retailer	1924.17	73.22%



Gross sales and contribution percentages by **Channels**



Insight:

- **Channel: “Retailer”** helped bring maximum sales to the company with **73.22%** as the contribution percentage.
- **Channel: “Distributor”** makes the least contribution at a percentage of **11.31%**.

Questions 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

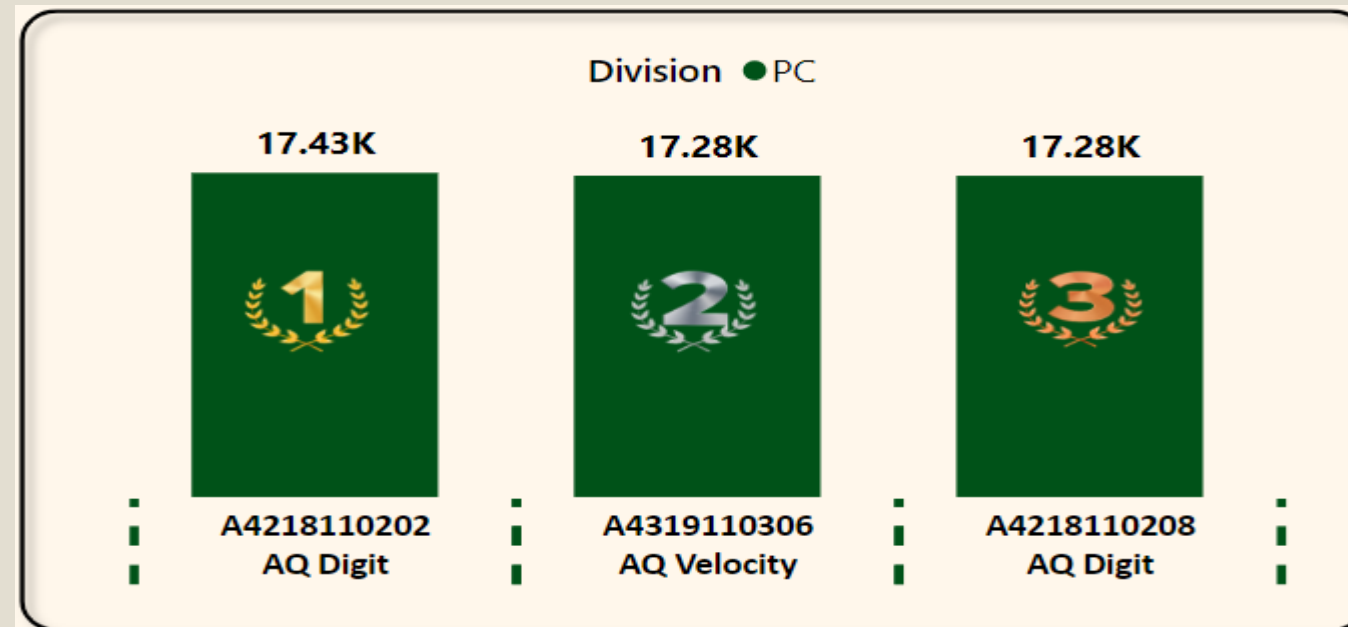
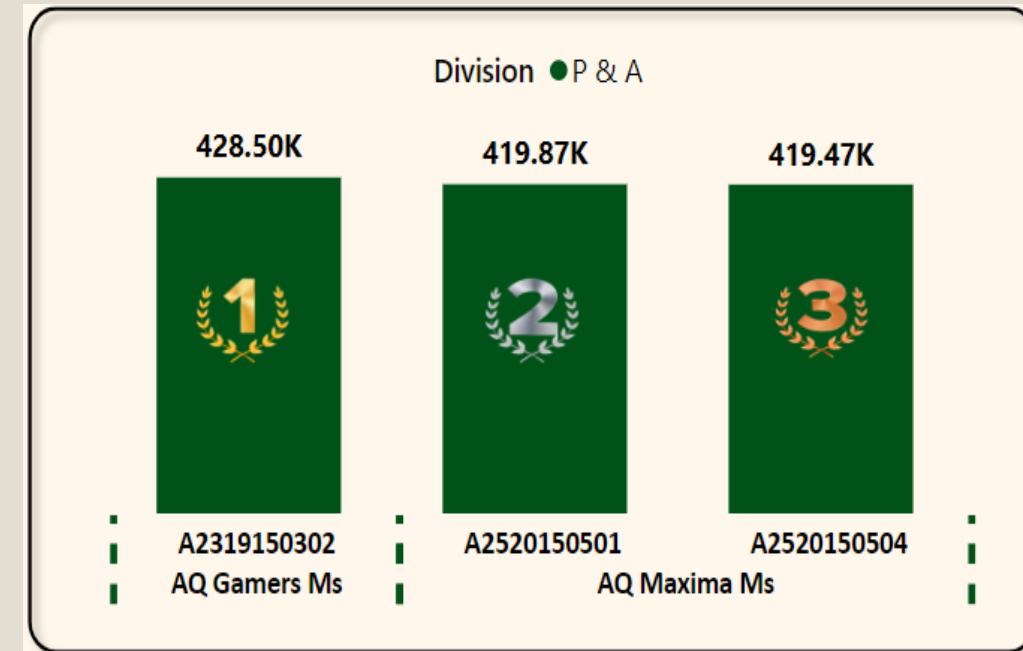
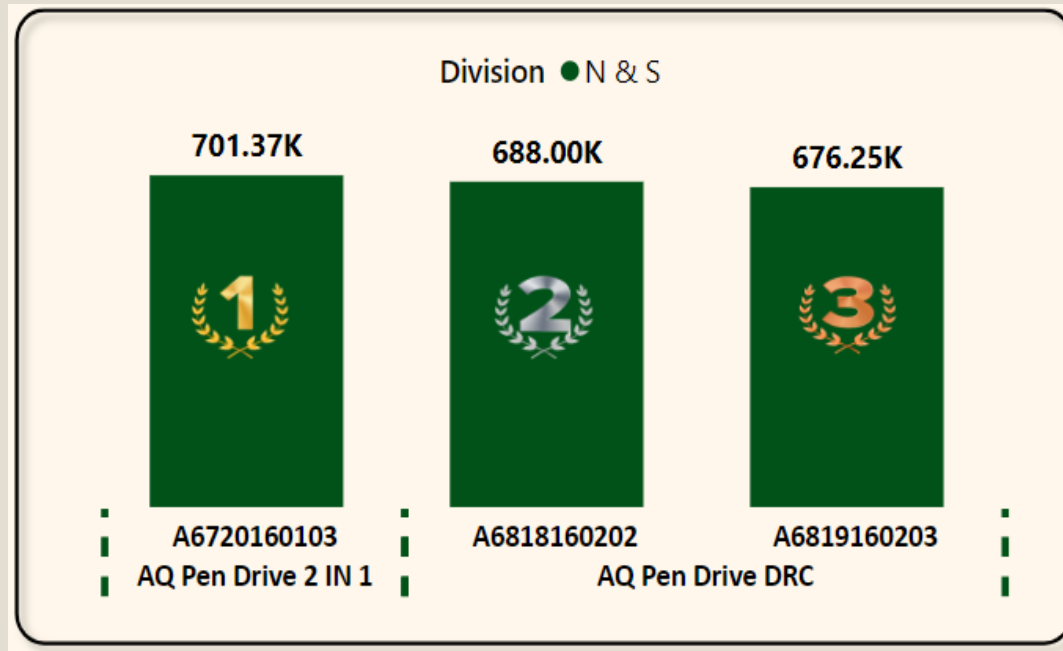
Output:

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

Insight:

- Every division has a product with **different variants** that appears **twice** in the top three products by division list.

Top 3 highest-selling products by Division for FY 2021





Thank you!