# Ad_Hoc Insights
Consumer Goods

Presented By

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Objectives 🎯

- **AtliQ Hardwares** (an imaginary enterprise) stands as a prominent computer hardware manufacturer in India, with notable global outreach.

- Despite the growth, the leadership recognized a **lack of timely insights** for making smart and strategic data-driven decisions.

- A decision was made to **scale the analytics team** by hiring new junior data analysts.

- To identify suitable candidates, **Tony Sharma**, the Data Analytics Head, proposed a **SQL-based assessment** focusing on both technical abilities and interpersonal skills.

- The assessment aims to generate actionable insights for **10 business-related ad hoc queries**.

Q1. 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 |
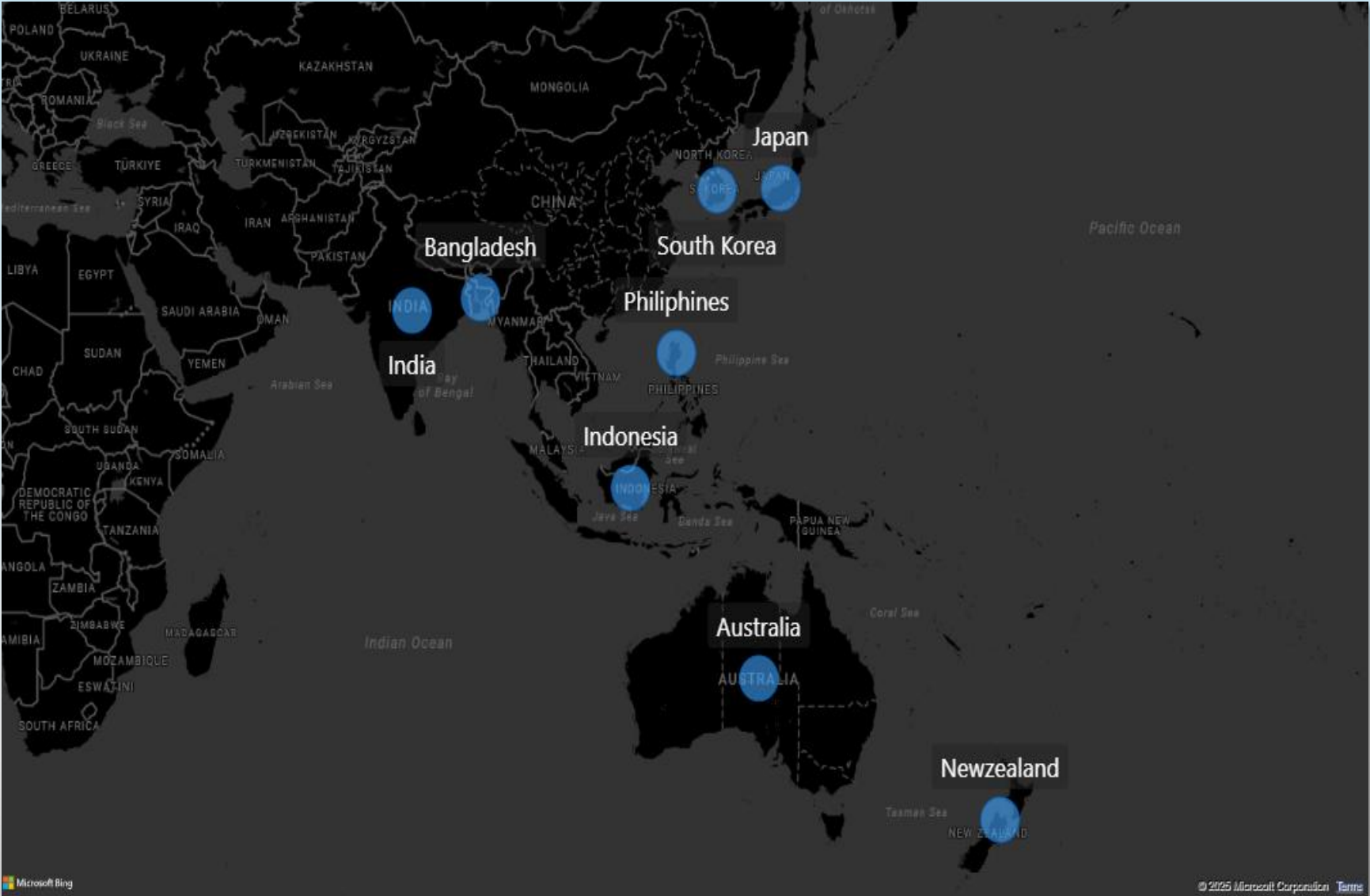
Q2. What is the percentage of unique product increase in 2021 vs. 2020? The final output contains these fields   unique_products_2020 ,
unique_products_2021,
 percentage_chg

unique_products_2020	unique_products_2021	percentage_chg
245	334	36.33

Unique Products 2020 Vs Unique Products 2021
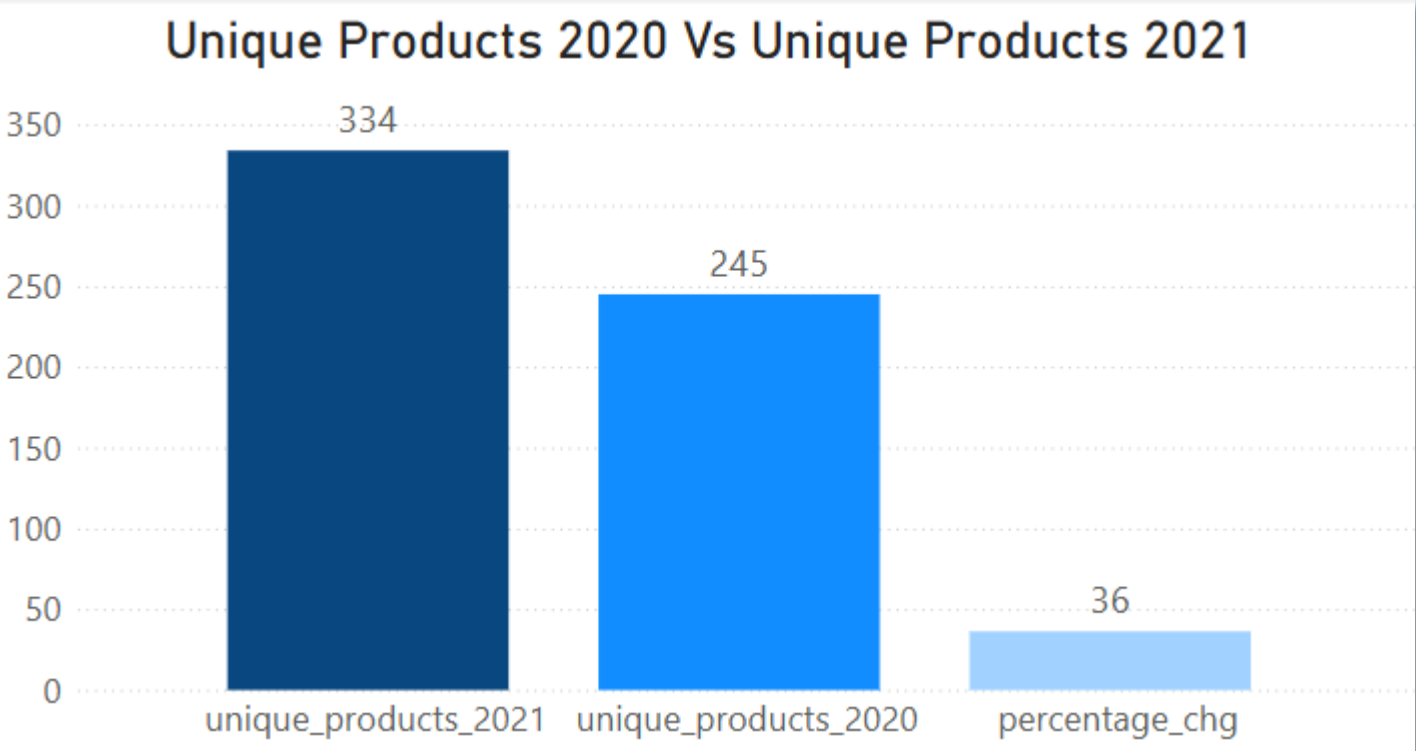
Q3.Provide a report with all the unique product counts for each segment and sort them in descending order of product counts. The final output contains 2 fields- segment, product_count

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

Unique Product Count by Segment

Segment	Count
Notebook	129
Accessories	116
Peripherals	84
Desktop	32
Storage	27
Networking	9
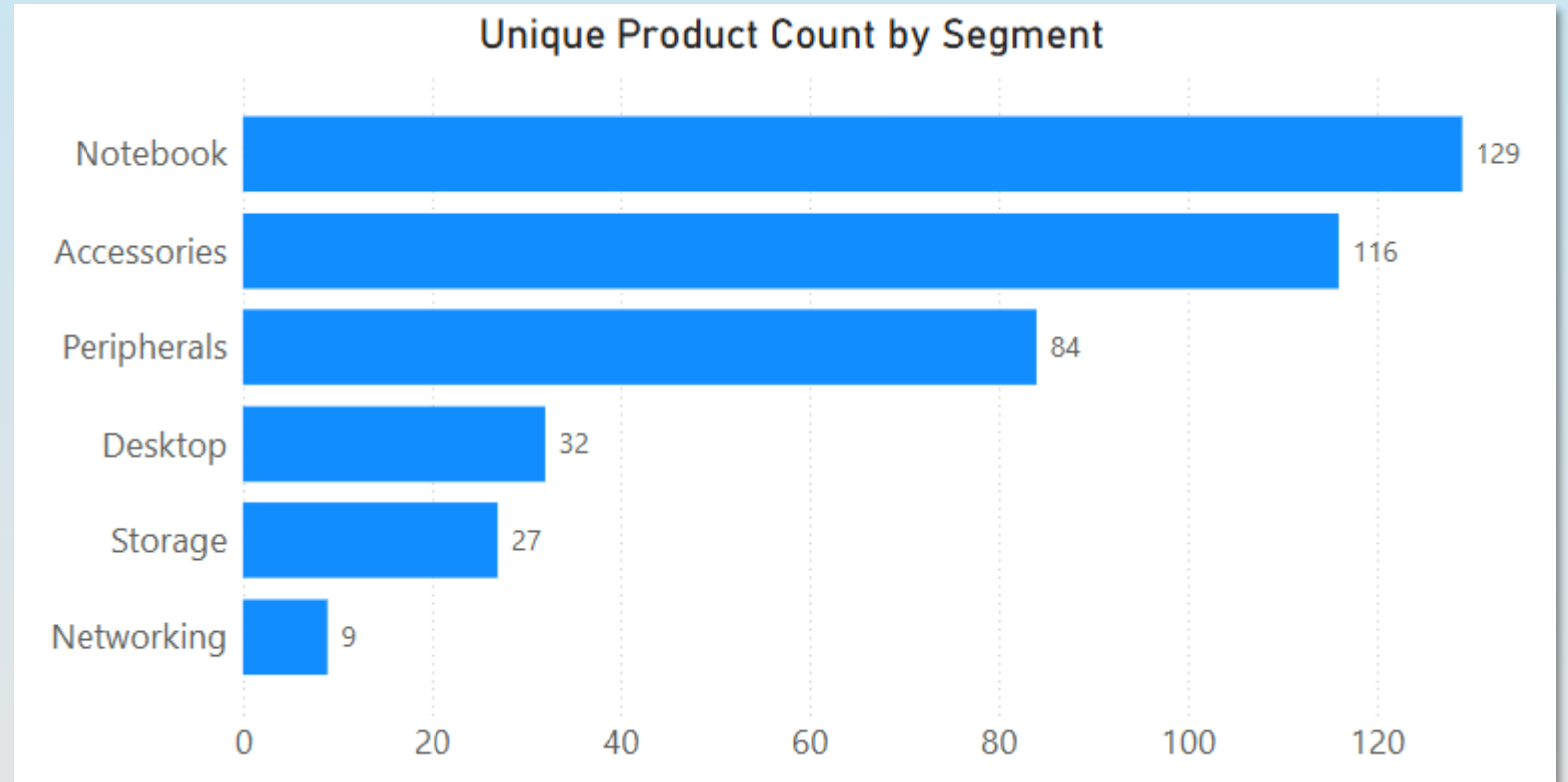
Q4. Follow-up: Which segment had the most increase in unique products in 2021 vs 2020? The final output contains these fields – segment, product_count_2020 product_count_2021 difference

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

Unique product difference per **segment** from 2020 to 2021
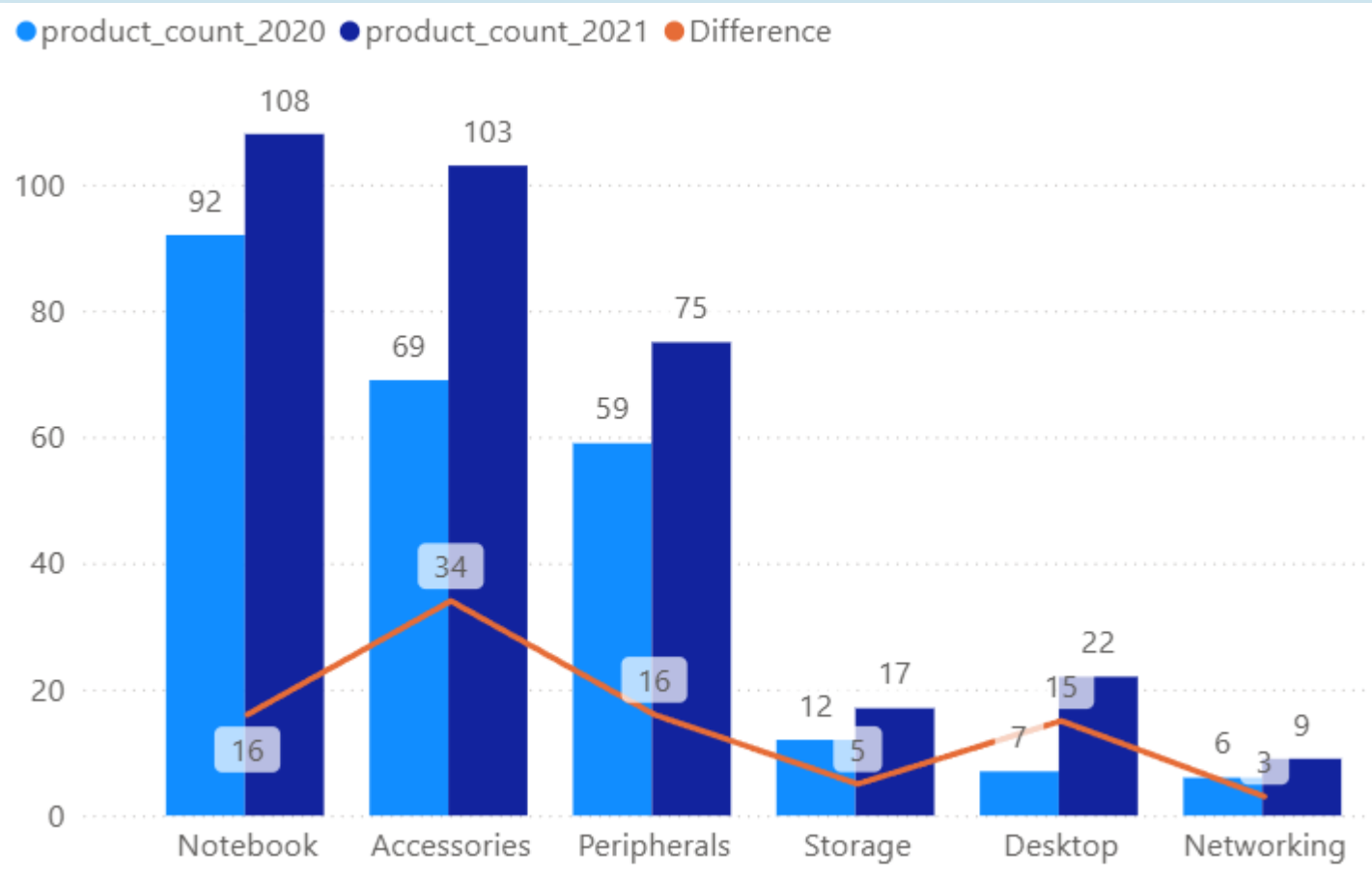
5. Get the products that have the highest and lowest manufacturing costs. The final output should contain these fields--product_code, product, manufacturing_cost

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

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

$240.54

A6120110206

AQ HOME Allin1 Gen 2
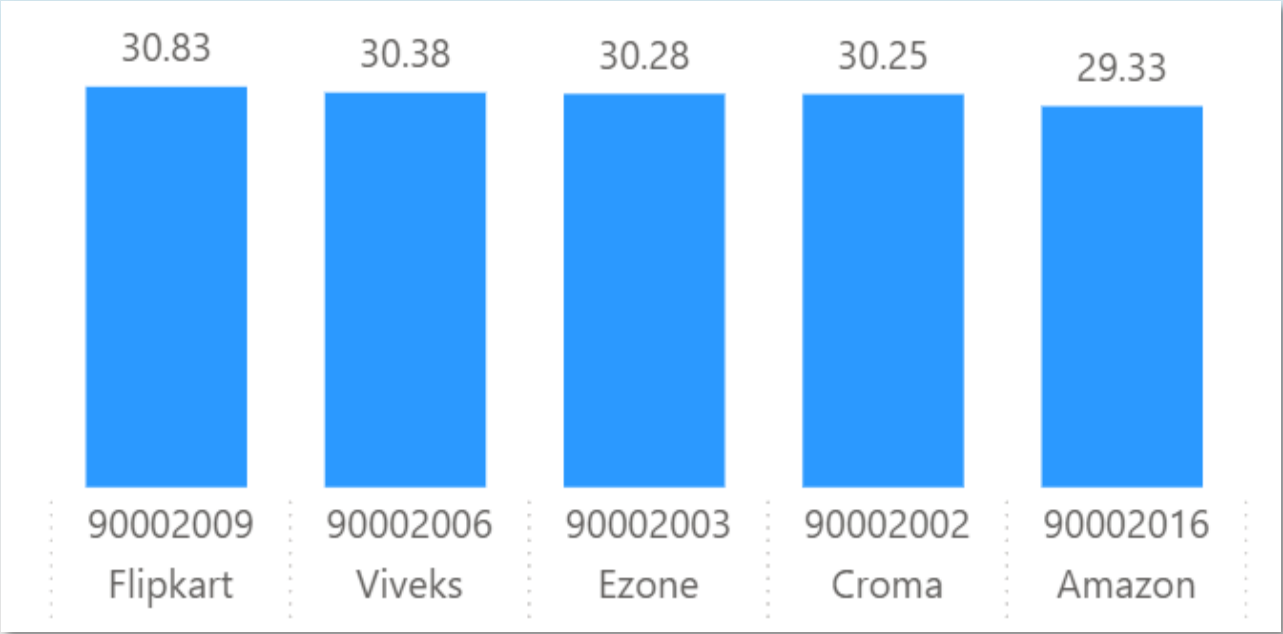
Desktop

$0.89

A2118150101

AQ Master wired x1 Ms

Accessories

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

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

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

| 30.83	30.38	30.28	30.25	29.33
90002009	90002006	90002003	90002002	90002016
Flipkart	Viveks	Ezone	Croma	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	fiscal_year	gross_sales
September	2020	9.09 M
October	2020	10.38 M
November	2020	15.23 M
December	2020	9.76 M
January	2020	9.58 M
February	2020	8.08 M
March	2020	0.77 M
April	2020	0.80 M
May	2020	1.59 M
June	2020	3.43 M
July	2020	5.15 M
August	2020	5.64 M
September	2021	19.53 M
October	2021	21.02 M
November	2021	32.25 M
December	2021	20.41 M
January	2021	19.57 M
February	2021	15.99 M
March	2021	19.15 M
April	2021	11.48 M
May	2021	19.20 M
June	2021	15.46 M
July	2021	19.04 M
August	2021	11.32 M

Gross Sales in **FY 2020**
79.5M

Gross Sales in **FY 2020**
224.42M

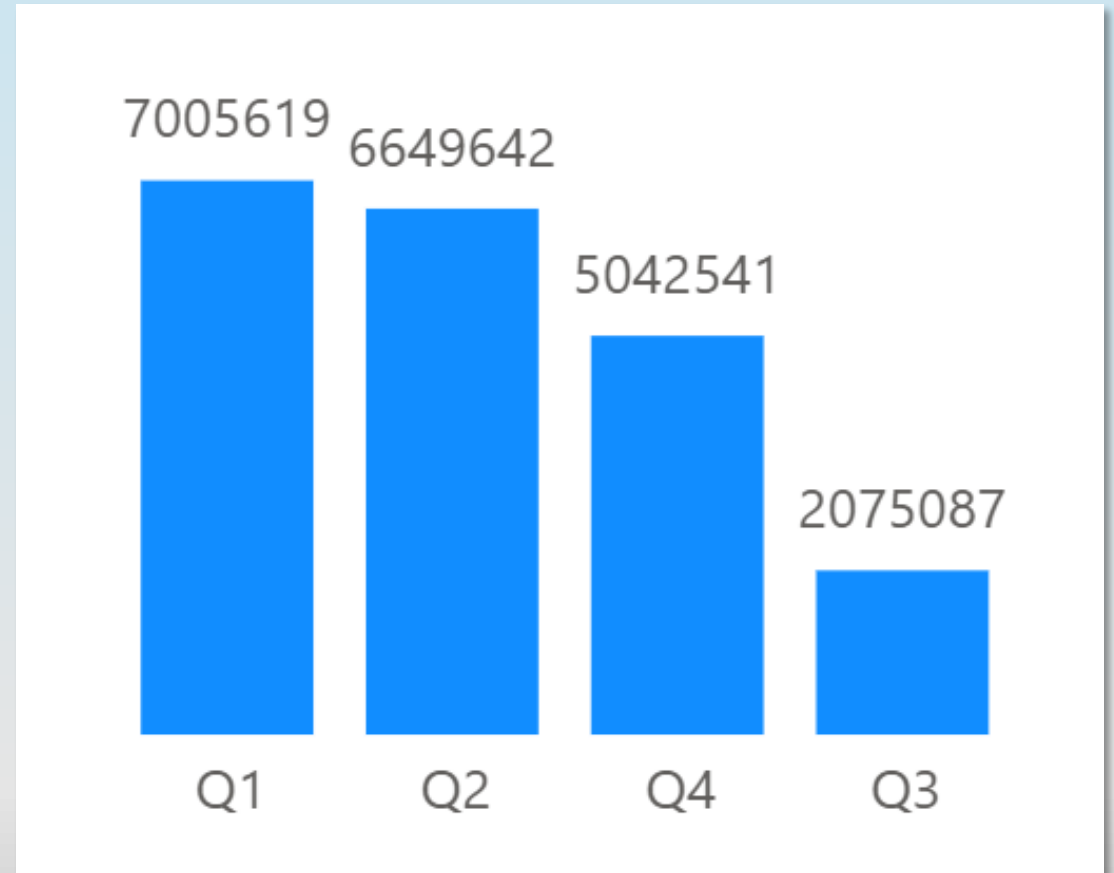Gross sales amount report for **Atliq Exclusive** by month
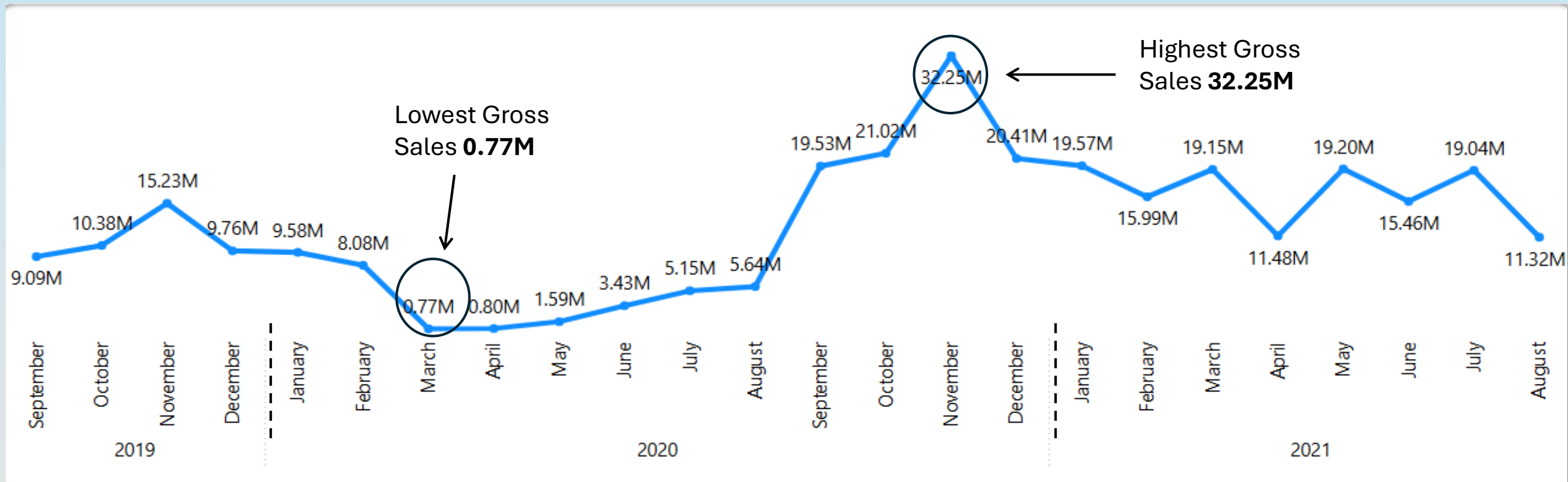
8. In which quarter of 2020, got the maximum total_sold_quantity? The final output contains these fields sorted by the total_sold_quantity
Quarter
total_sold_quantity

Total sold quantity in **FY 2020** by **Quarter**

Quarter	total_sold_quantity
▶ Q1	7005619
Q2	6649642
Q4	5042541
Q3	2075087

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

Gross sales and contribution percentages by **Channel** in **FY 2021**

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

297.18M (11.31%)

406.69M (15.47%)

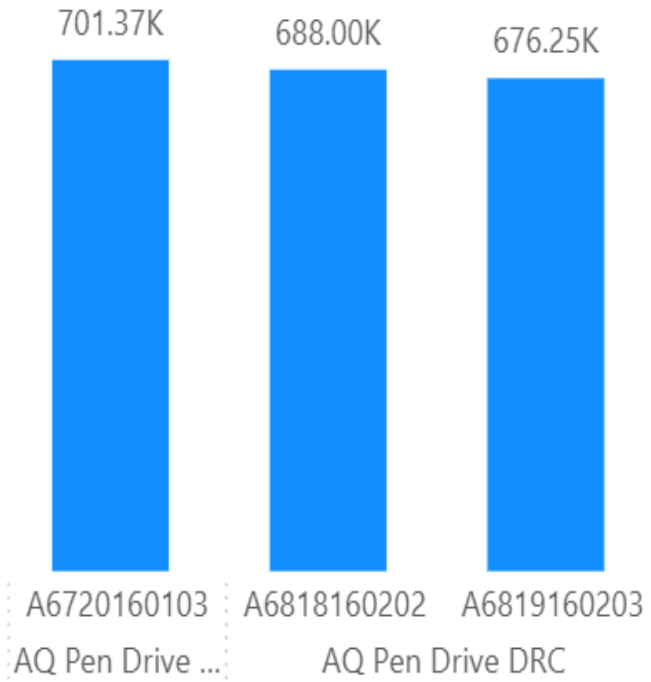channel
- Retailer
- Direct
- Distributor

1924.17M (73.22%)
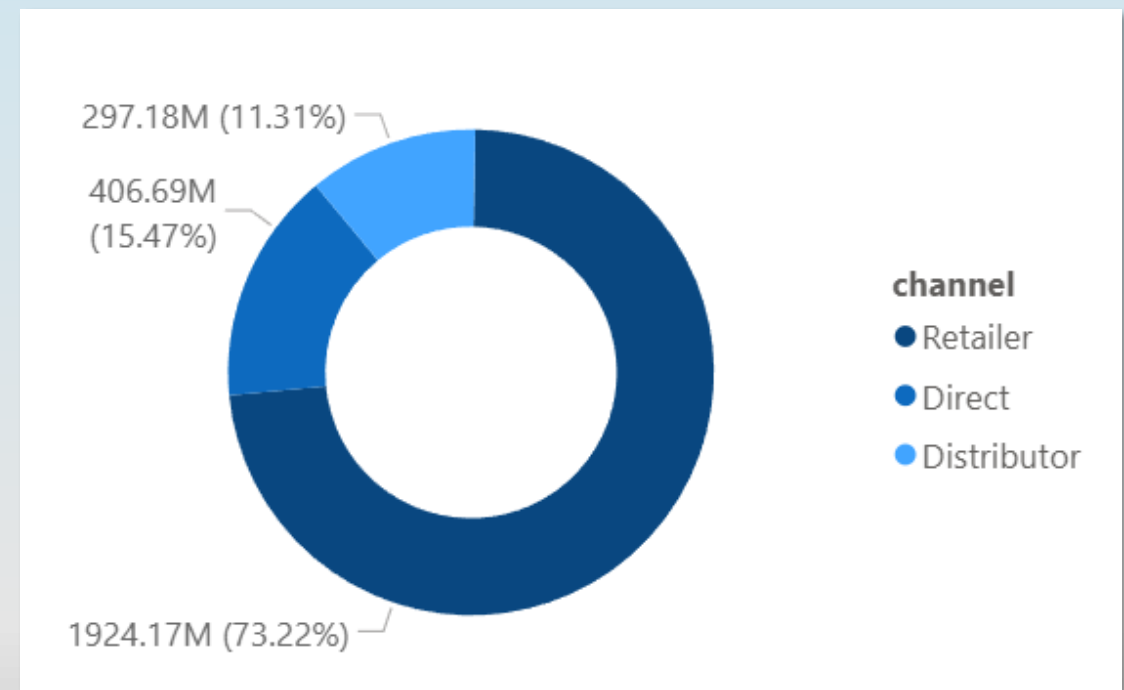
10. Get the Top 3 products in each division that have a high total_sold_quantity in the fiscal_year 2021? The final output contains these fields,
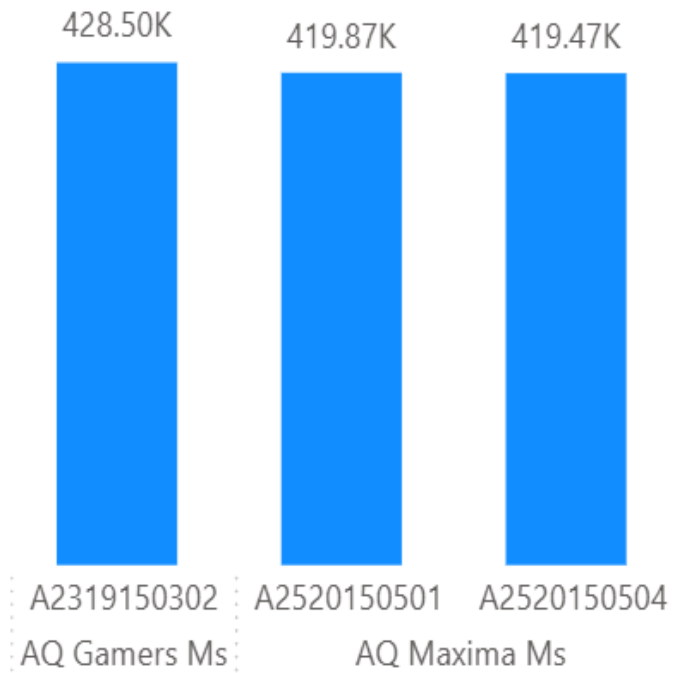**division, product_code, product, total_sold_quantity, rank_order**

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

Top 3 highest-selling products by **Division** in the **FY 2021**

THANK YOU!