AtliQ Hardware

Consumer Goods Ad_Hoc Insights

Presented by Shakti Singh

SQL Resume Challenge
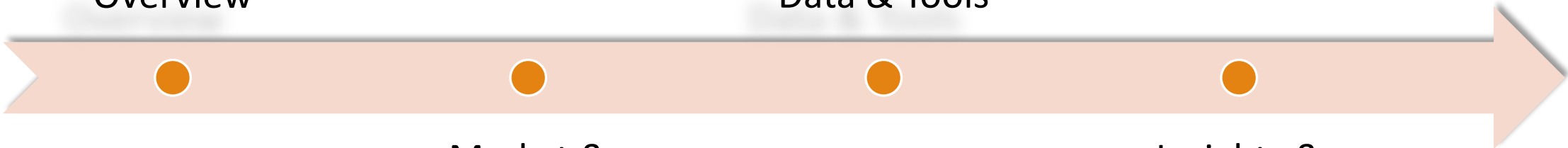
AGENDA

Company
Overview

Data & Tools

Market &
Products

Insights &
Visualization

Company Overview :-

Intro :-

- AtliQ Hardware (imaginary company) - One of the leading computer hardware producers in India and well expanded in other countries too.

Problem :-
- However, the management noticed that they do not get enough insights to make quick and smart data-informed decisions.

- So they want to expand their data analytics team by adding junior data analysts.

- Tony Sharma, their data analytics director wanted to hire someone who is good at both tech and soft skills. So to assess candidates he decided to conduct a SQL challenge which will help him understand both the skills.

- The company seeks insights for 10 request.

AtliQ Hardware Markets :

1. NA
2. Latin America
3. Europe
4. APAC
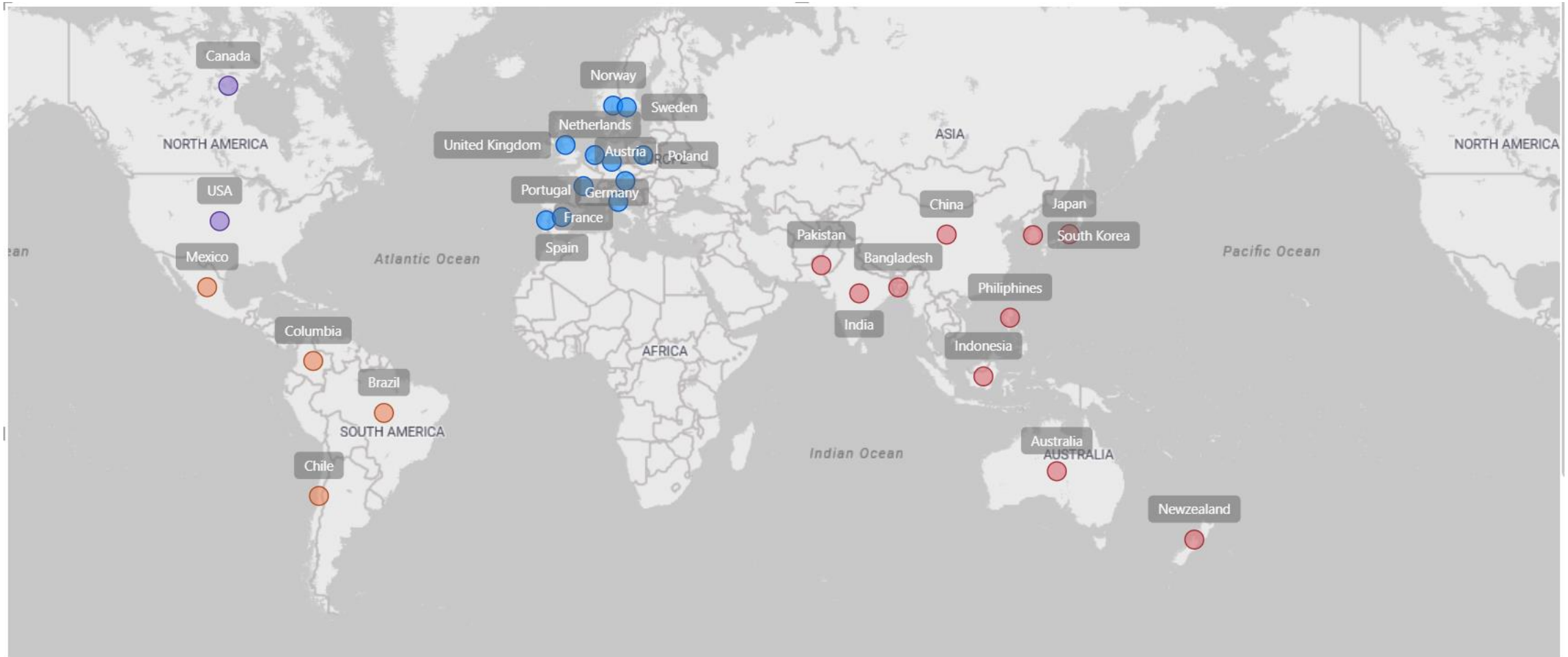
Products

Division	Segment	Category	
PC	Dekstop	Business laptop	Personal Deskstop
	NoteBook	Business Laptop	Gaming Laptop
N & S	Networking	Wi Fi extender	
	Storage	External Solid State Drive	USB Flash Drives
P & A	Accessories	Batteries	Keyboard • Mouse
	Peripherials	Graphic Card	Internal HDD • MotherBoard • Processors
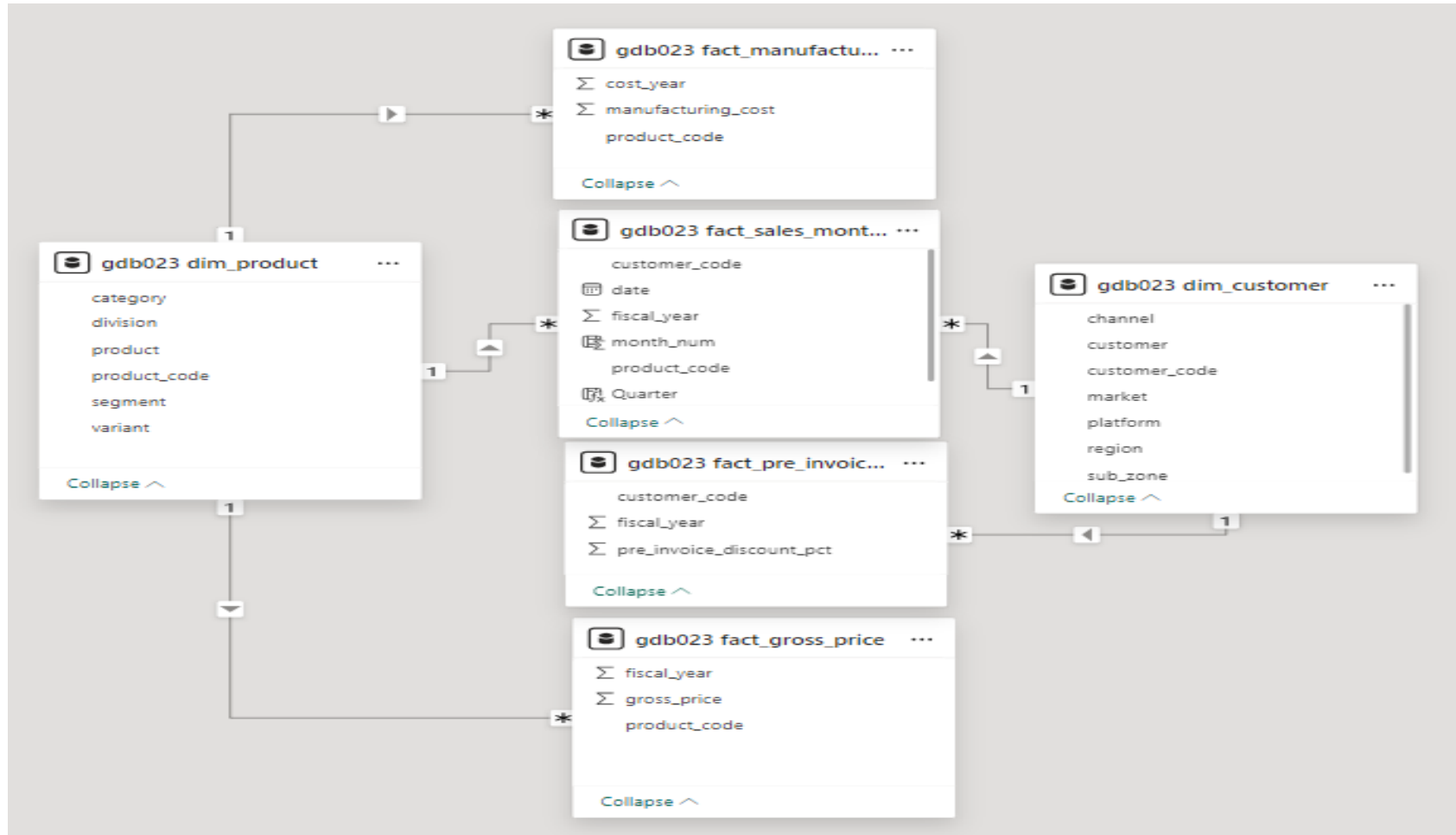
For Visualization
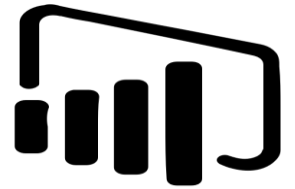
AtliQ Hardware FY 2020 September 2019 to August 2020
FY 2021 September 2020 to August 2021

Insights
&
Visualization

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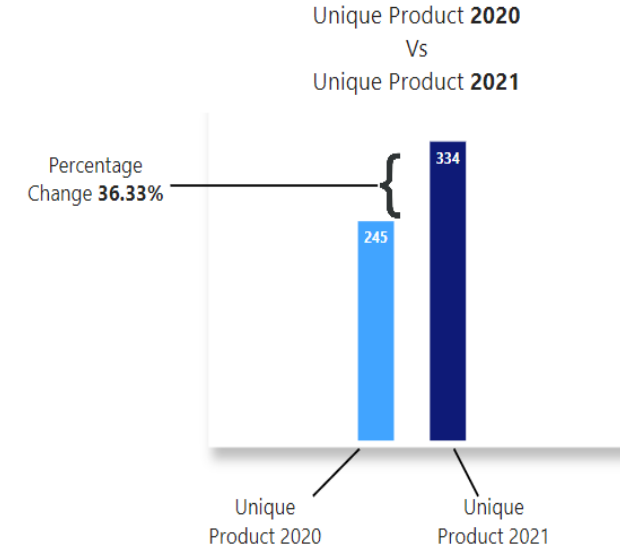

Insights :-
- AtliQ Exclusive operates its business in **8** major markets in **APAC** region.
- India is the leading market in terms of gross sales among **8 markets.**

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_product_2020	unique_product_2021	percentage_chg
▶	245	334	36.3265

Unique Product **2020**
Vs
Unique Product **2021**

Percentage
Change **36.33%**

334

245

Unique
Product 2020

Unique
Product 2021

Insights :-
*   In FY 2020 the company had a total of 245 unique products.
*   In FY 2021 this number increased to 334 unique products marking a 36.33% growth in the number of unique products.
*   The growth in unique products is primarily due to the introduction of new products into the market.

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

Unique Product Counts for each **Segment**
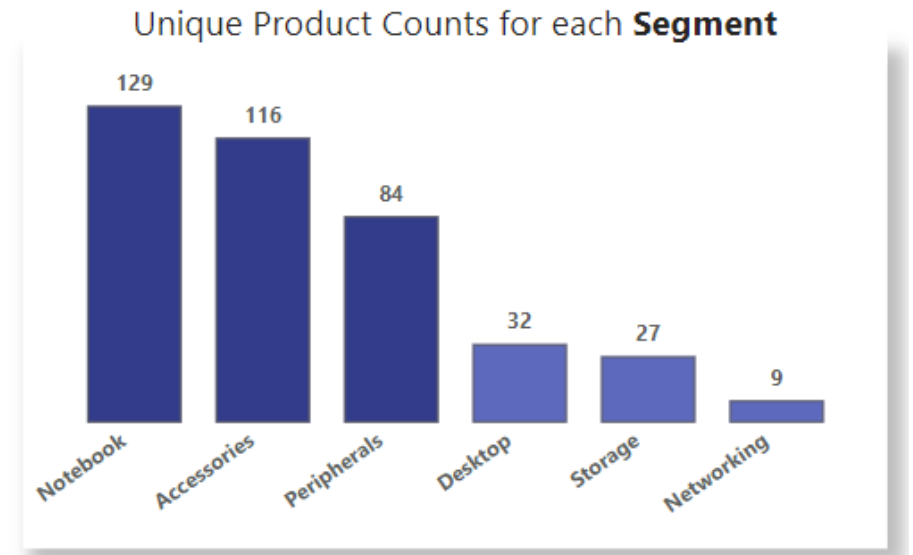
Insights :-
•The **Notebook**, **Accessories**, and **Peripherals** segments are showing growth in manufacturing, outpacing other segments like **Desktop**, **Storage**, and **Networking** are seeing slower growth in comparison to the aforementioned segments.

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
Desktop	7	22	15
Networking	6	9	3
Notebook	92	108	16
Peripherals	59	75	16
Storage	12	17	5

Unique Product difference per Segment from 2020 to 2021

● unique products 2020 ● unique products 2021 ● difference

Segment	2020	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
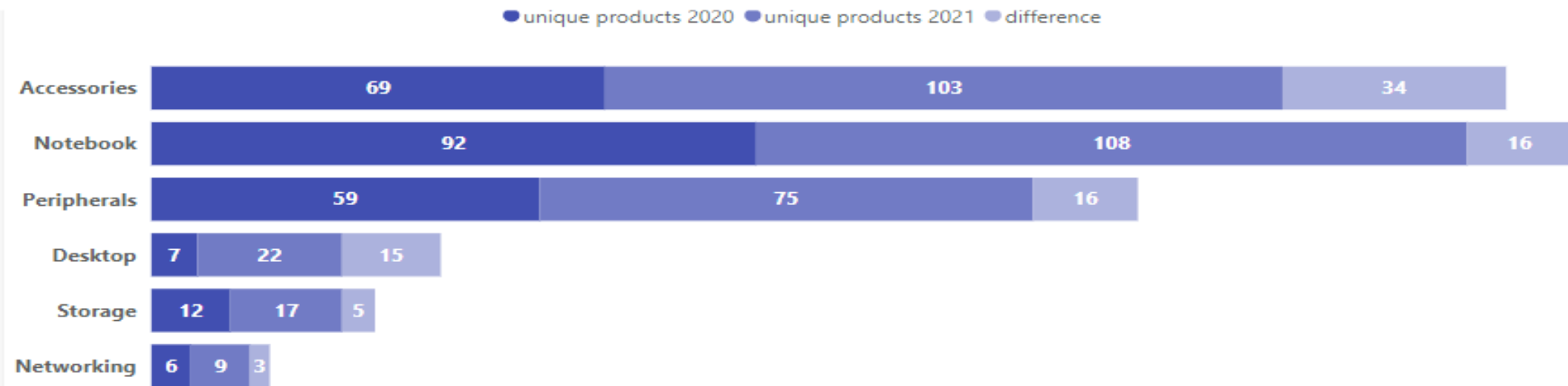
Insights :-
- The **Accessories** segment had the **largest** increase in unique products with an increase of **34 products** from 2020 to 2021.
- **Notebooks & Peripherals** segment saw a growth of **16 products** each showing strong growth.
- **Desktop** segment saw smaller growth of **15 products.**
- **Storage & Networking** segment saw a **smallest** increase in there products compare to other segment **5 & 3**.

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 having the
highest manufacturing
cost

Product having the
lowest manufacturing
cost

$240.54

A6120110206
AQ HOME Allin 1 Gen 2
Personal Desktop

$0.89

AQ118150101
AQ Master wired x1 MS
Mouse

Insights :-

- Personal Desktop :- Highest manufacturing cost
- Mouse :- Lowest 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. The final output contains these fields,

customer_code , customer , average_discount_percentage

| customer_code	customer	avg_discount_pct
▶ 90002009	Flipkart	0.30830000
90002006	Viveks	0.30380000
90002003	Ezone	0.30280000
90002002	Croma	0.30250000
90002016	Amazon	0.29330000
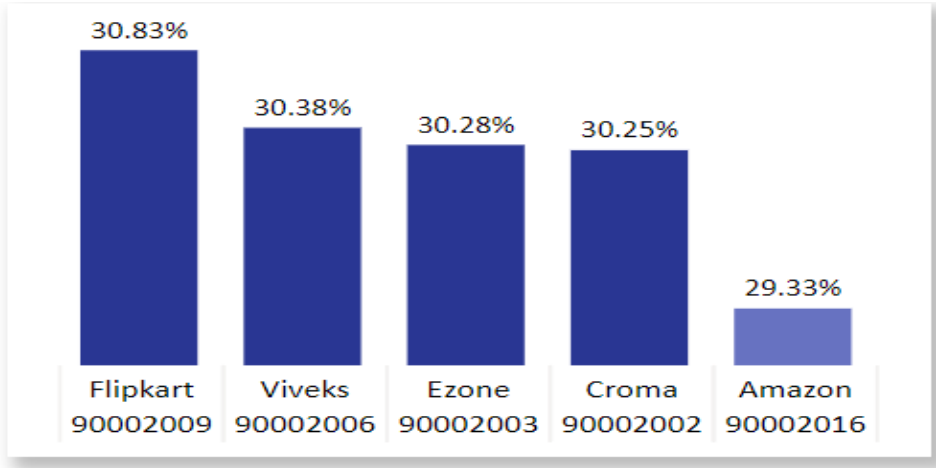
Insights:-
- **Flipkart** has given **largest** average pre-invoice discount in Indian market i.e **30.83%**.
- **Amazon** has given **least** average pre-invoice discount in Indian market i.e **29.33 %**.

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_total_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

Gross sales amount report for **Atliq Exclusive** by month
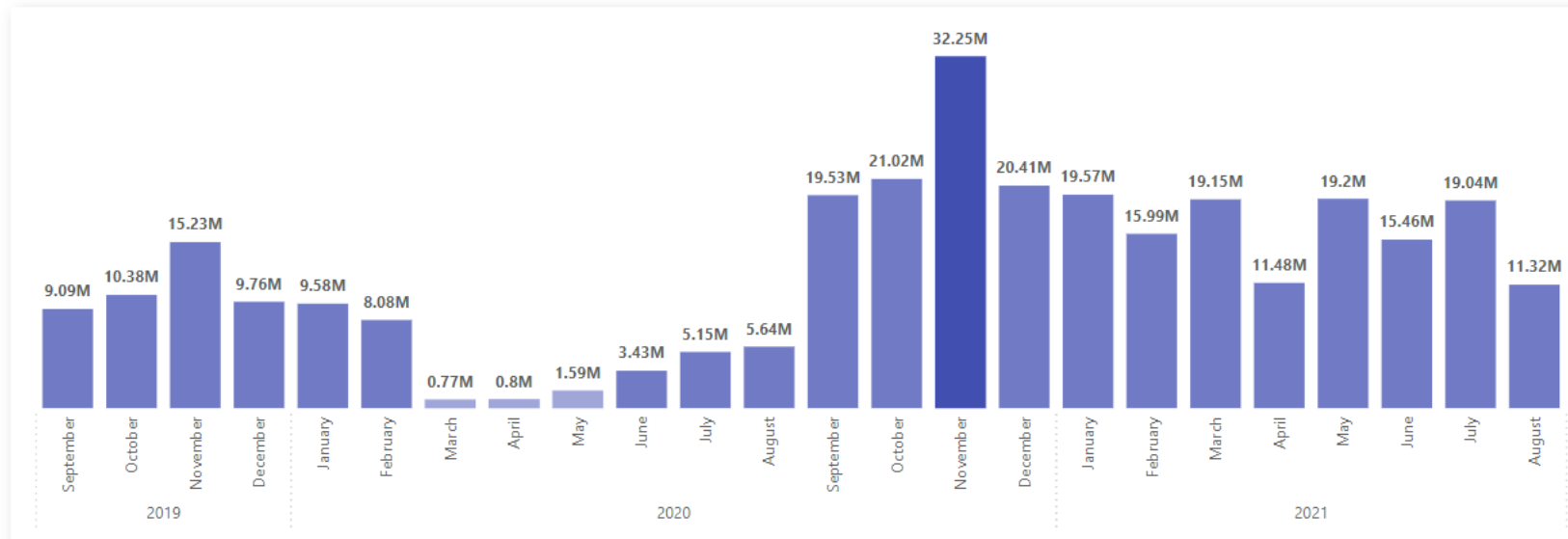
Insights :-
- The total sales amount is **303.92 million**.
- FY 2020: Total sales were **79.50 million**.
- FY 2021: Total sales increased significantly to **224.42 million**.
- **November 2020** saw the **highest** sales at **32.25 million.**
- **March 2020** recorded the **lowest** sales at **0.77 million**.
- Sales were lower between March and August 2020 due to the **COVID-19** lockdown and its economic effects.
- **September 2020** marked the beginning of a recovery, with sales picking up again.
- Sales quickly recovered and November 2020 had the highest sales, likely due to the easing of **COVID-19** restrictions.
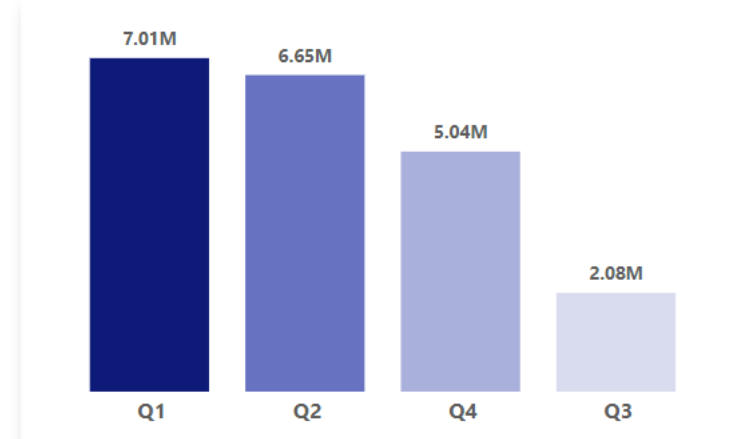
8. In which quarter of 2020, got the maximum total_sold_quantity? The final output contains these fields sorted by the total_sold_quantity,

Quarter , total_sold_quantity

Quarters	total_sold_quantity
1	7005619
2	6649642
4	5042541
3	2075087

Quantity sold in **FY 2020** by Quarter

Insights :-
*   **Q1 (September to November)** saw the **highest quantity sold**, likely due to increased demand, possible promotions, **Q3 (March to May)** had the **lowest quantity sold**, with **March** being the **worst month**, heavily impacted by the pandemic and related restrictions.**Q4 (June to August)** showed a **strong recovery** in the market, likely due to the easing of lockdowns and businesses reopening.

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

Gross Sales and Contribution percentage of channel for FY 2021

297.18M (11.31%)

406.69M
(15.47%)

1924.17M (73.22%)

channel
● Direct
● Distributor
● Retailer
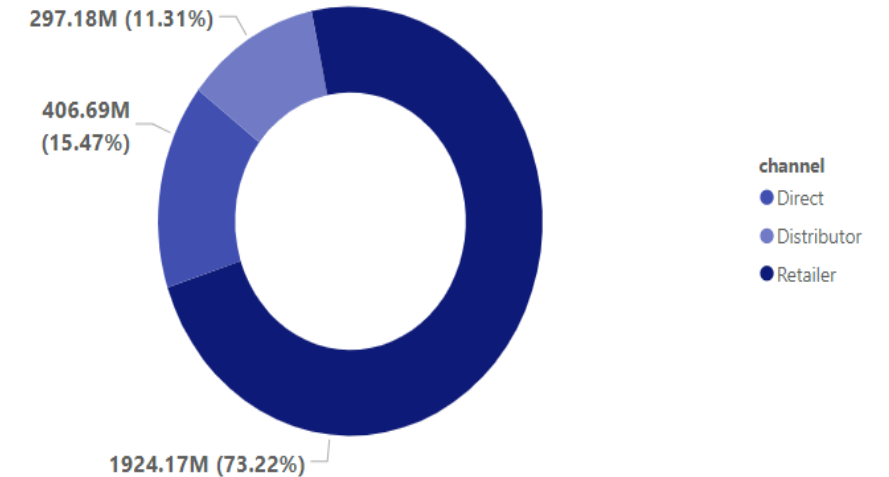
Insights :-
- **Retailer** channel generated the **highest** gross sales with **1924.17M** contributing **73.22%** of total sales.
- **Distributor** channel made up **smaller** share with **297.18M** in gross sales contributing **11.31%** of total sales.

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
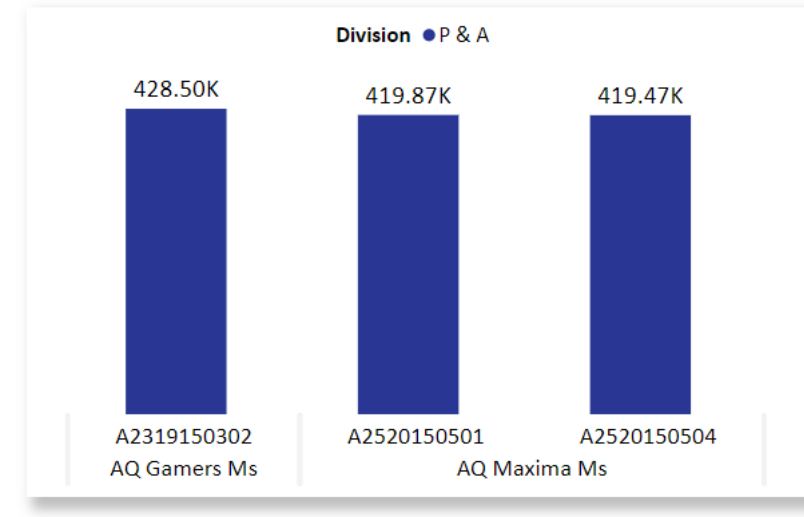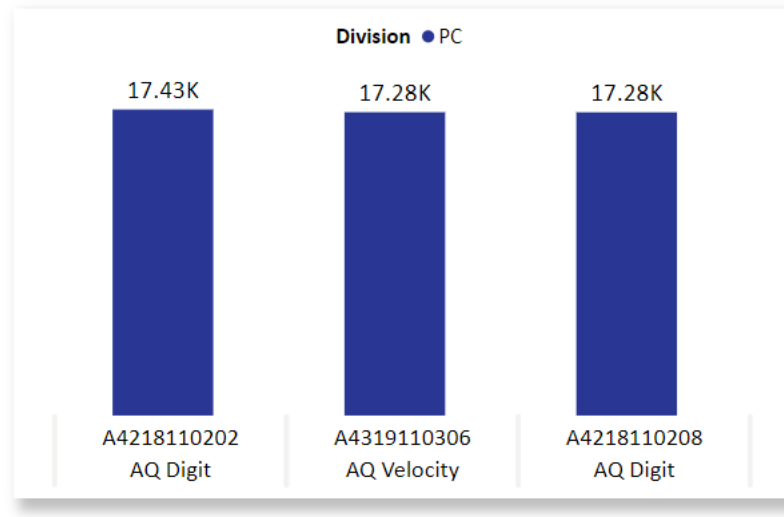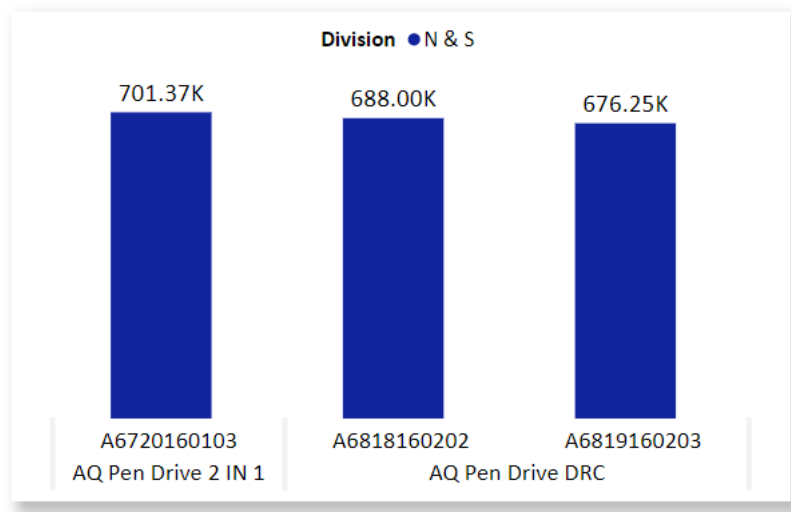
Insights :-

N&S (Notebooks & Storage): The **top-selling product** is the **AQ Pen Drive 2 IN 1**, with **700,000 units sold**
PC (Personal Computers): The **top-selling product** is **AQ Digit Personal Laptops**, with **17,000 units sold**
P&A (Peripherals & Accessories): The **top-selling product** is the **AQ Gamers Mouse**, with **400,000 units sold**.

Thank You