

ATLIQ HARDWARE

Consumer goods
Ad-hoc insights

Presented by:-



Y Chenna Harshan Reddy



- **Introduction**

- Objectives
- Problem statement

- **Company Overview**

- Market Presence
- Product Division

- **Analysis Approach**

- Ad_Hoc Requests
- Tools Used

- **Key Insights & Findings**

Introduction

AtliQ Hardware (fictitious corportation) is a leading computer hardware manufacturer based in India, with a strong global presence.

- The company operates across multiple regions, including **APAC** , **LATAM**, **NA** and **EU** .
- It specializes in manufacturing a wide range of **computer hardware** including **desktops**, **laptops**, **peripherals**, **accessories**, **storage solutions** and **networking devices**.
- AtliQ Hardware is known for its commitment to **innovation**, **quality**, and **customer satisfaction** , ensuring its products meet global standards.

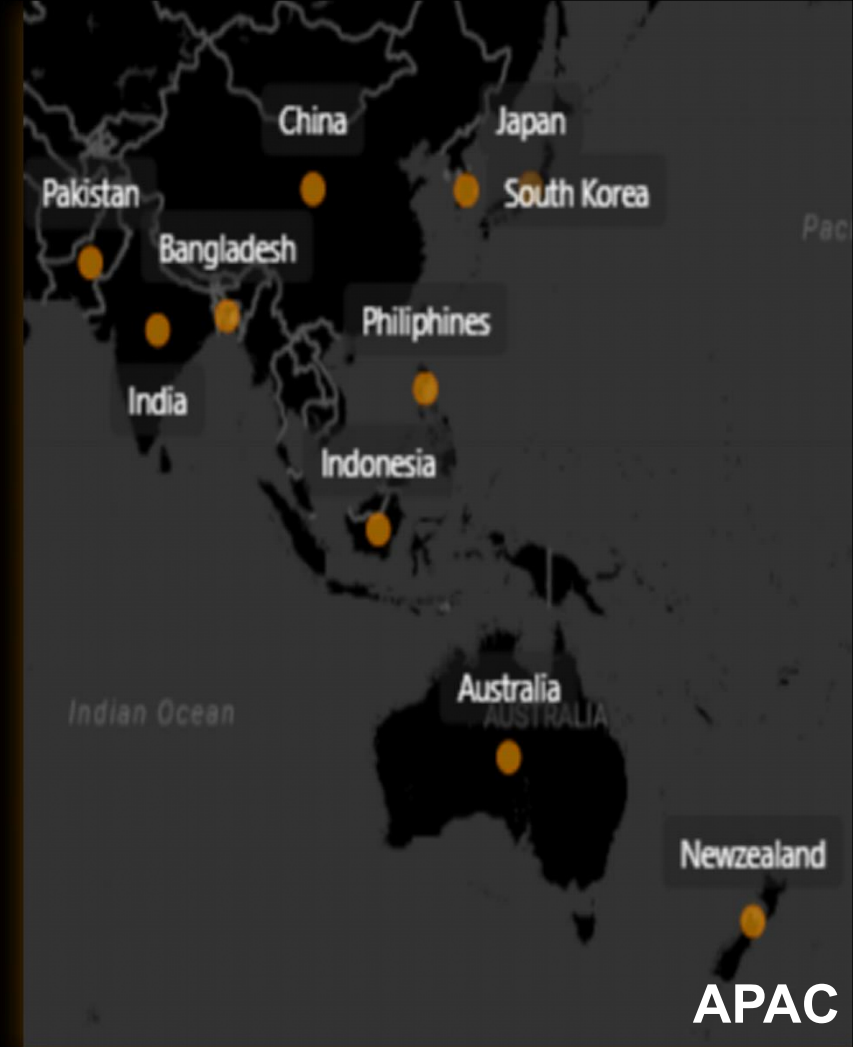
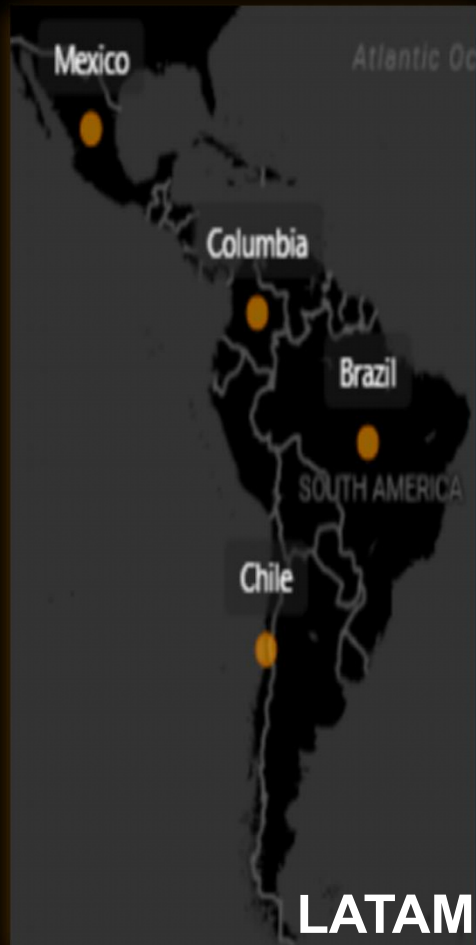
Objective:

To analyze **AtliQ Hardware's** business data and generate insights that help in making data-driven decisions for growth and efficiency across global markets.

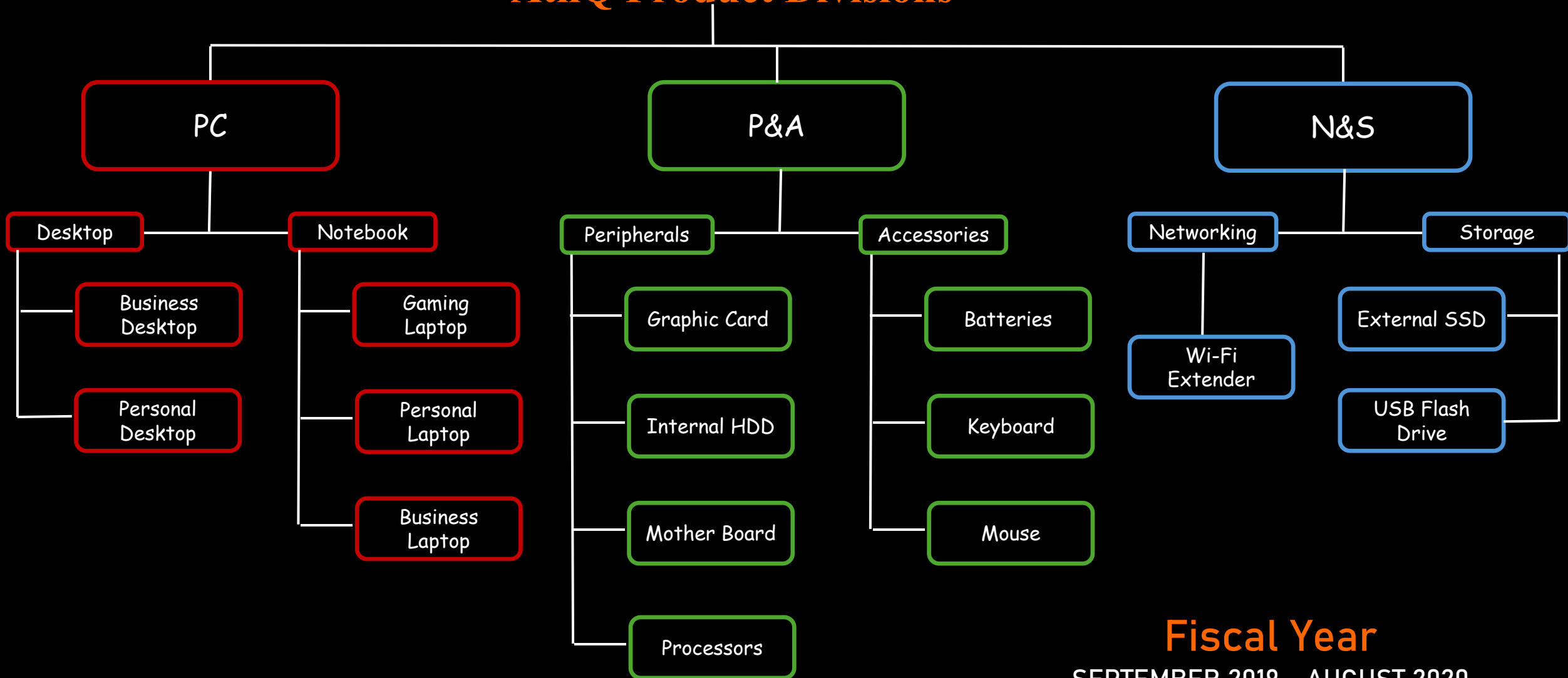
Problem Statement:

- The management lacks enough insights for quick, **data-driven decisions**.
- The company plans to hire junior data analysts with **tech and soft skills**.
- **Tony Sharma, the analytics director**, designed an SQL challenge to assess candidates.
- The challenge evaluates skills while solving **10 ad-hoc business requests**.

Market Presence



AtliQ Product Divisions



Fiscal Year

SEPTEMBER 2019 - AUGUST 2020

FY 2020

SEPTEMBER 2020 - AUGUST 2021

FY 2021

Ad-Hoc Requests and Tools



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

codebasics.io

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_mln
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

codebasics.io



For Analysis and Visualization

1. 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



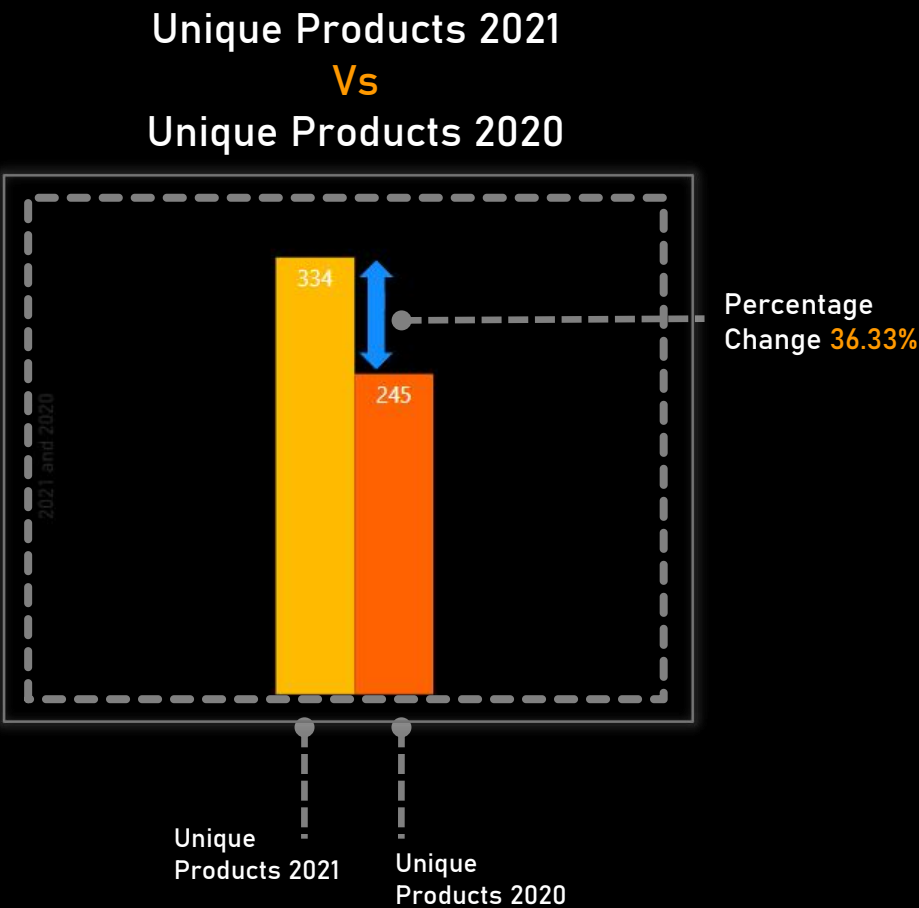
Insight:

- In APAC region most gross sales are coming from **INDIA** and least gross sales are coming from **JAPAN**.

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

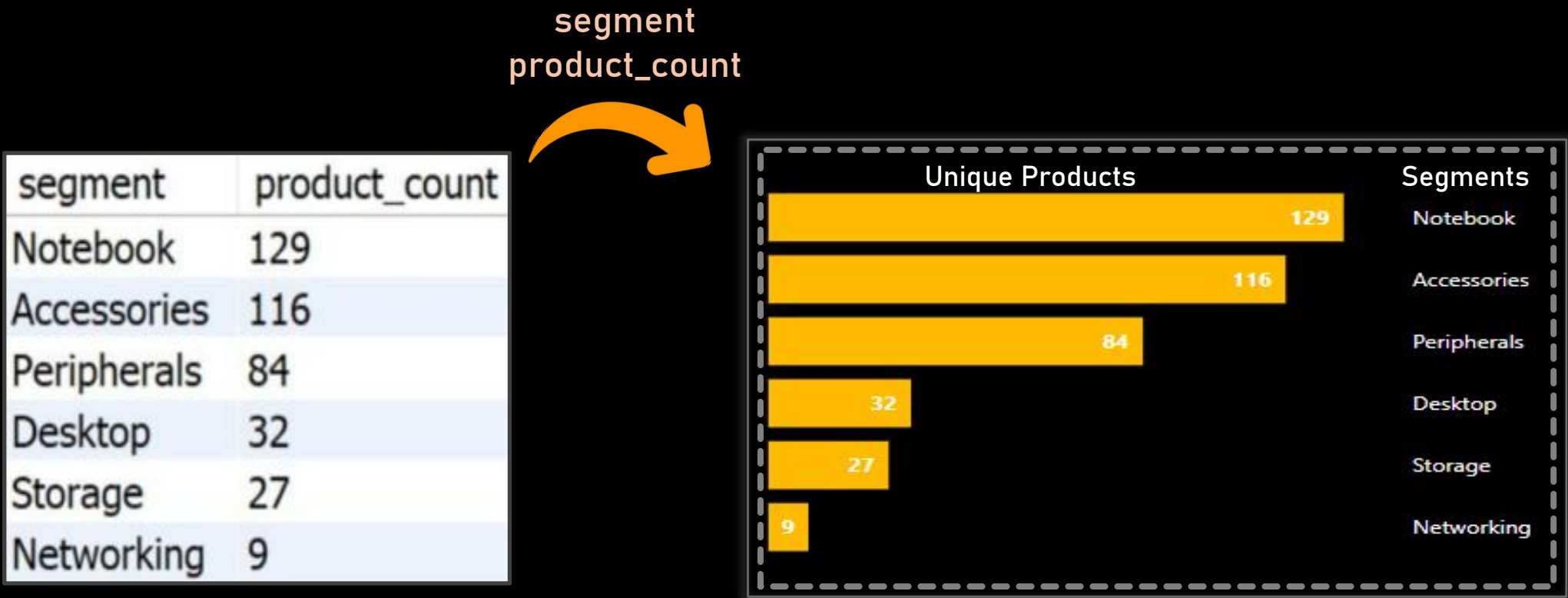
unique_product_2020	unique_products_2021	percentage_chg
245	334	36.33



Insight:

- Demand and production increased by 36.33% in Fiscal Year 2021

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,




Insights:

- Notebooks, accessories, and peripherals are **growing faster** in manufacturing than desktops, storage, and networking.
- Notebooks, accessories, and peripherals make up **83%** of total manufactured products.

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

Segment	Product count 2020	Product count 2021	Difference
Accessories	69	103	34 ↑
Peripherals	59	75	16 ↑
Notebook	92	108	16 ↑
Desktop	7	22	15 ↑
Storage	12	17	5 ↑
Networking	6	9	3 ↑

Insights:

- The **largest** increase in production was seen in **accessories**.
- Storage and networking are **growing slower** than other segments.

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



Products having the
highest and lowest
manufacturing costs

\$240.54



A6120110206
AQ HOME Allin1 Gen 2
Personal Desktop

\$0.89



A2118150101
AQ Master wired x1 MS
Mouse

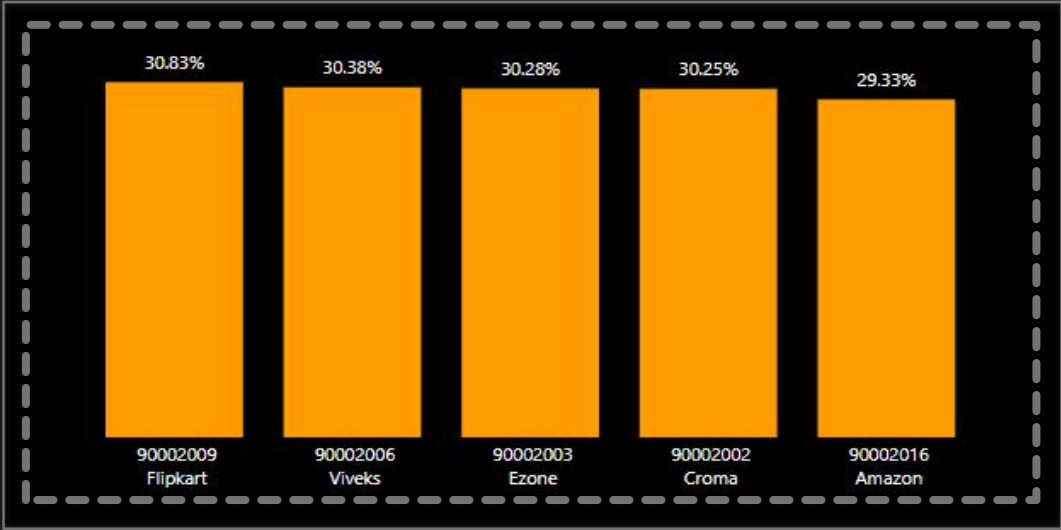
Insights:

- **Mouse:** The AQ Master Wired X1 Ms (**Standard1**) has the **lowest** manufacturing cost.
- **Personal Desktop:** The AQ Home All-in-1 Gen2 (**Plus3**) has the **highest** 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	average_discount_percentage
90002009	Flipkart	0.3083
90002006	Viveks	0.3038
90002003	Ezone	0.3028
90002002	Croma	0.3025
90002016	Amazon	0.2933



Insights:

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

FY 2020
79.5M

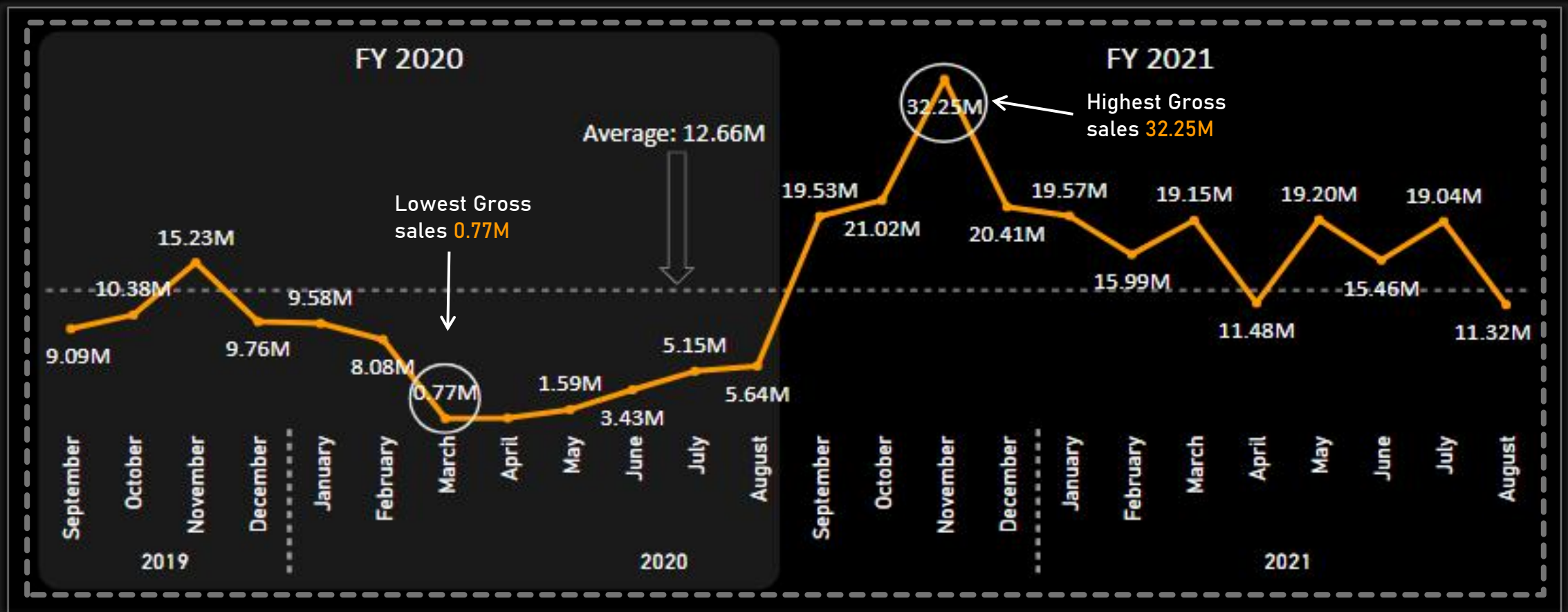
Month	fiscal_year	Gross_sales_Amount
September (2019)	2020	9092670.34
October (2019)	2020	10378637.60
November (2019)	2020	15231894.97
December (2019)	2020	9755795.06
January (2020)	2020	9584951.94
February (2020)	2020	8083995.55
March (2020)	2020	766976.45
April (2020)	2020	800071.95
May (2020)	2020	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 2021
224.4M

Month
Year
Gross sales amount

Insights:

- The **lowest** gross sales total for both fiscal years was in **March 2020**.
- The **highest** gross sales total for both fiscal years was in **November 2020**.
- Approximately **74%** of the total gross sales occurred in **FY2021**.



Reasons:

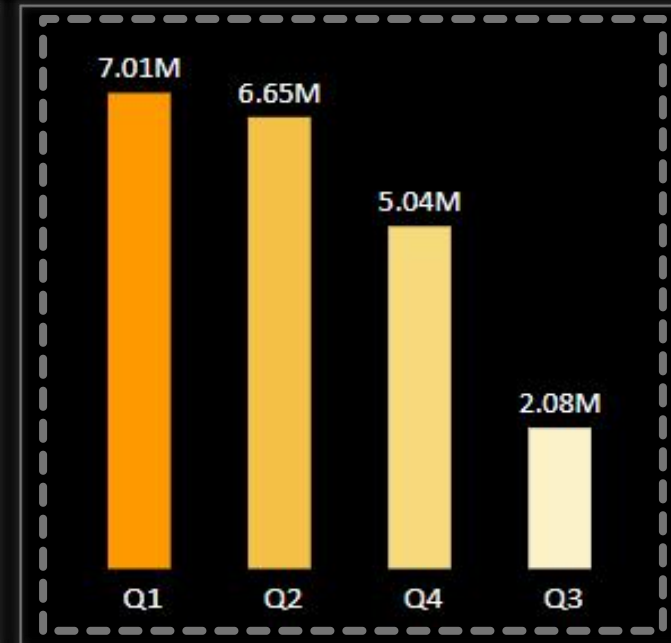
- Covid 19 impact.
- Global chip shortage.
- Supply chain disruptions.
- Decline in Consumer Spending.

8. In which quarter of 2020, got the maximum total_sold_quantity? The final output contains these fields sorted by the total_sold_quantity--->Quarters, total_sold_quantity



Quarters	total_sold_quantity
1	7005619
2	6649642
4	5042541
3	2075087

Month	Quarter		Total sold quantity
September	Q1		1.76M
October	Q1	7.01M	2.19M
November	Q1		3.05M
January	Q2		1.76M
February	Q2	6.65M	1.70M
December	Q2		3.18M
March	Q3		0.24M
April	Q3	2.08M	0.82M
May	Q3		1.02M
June	Q4		1.56M
July	Q4	5.04 M	1.69M
August	Q4		1.79M



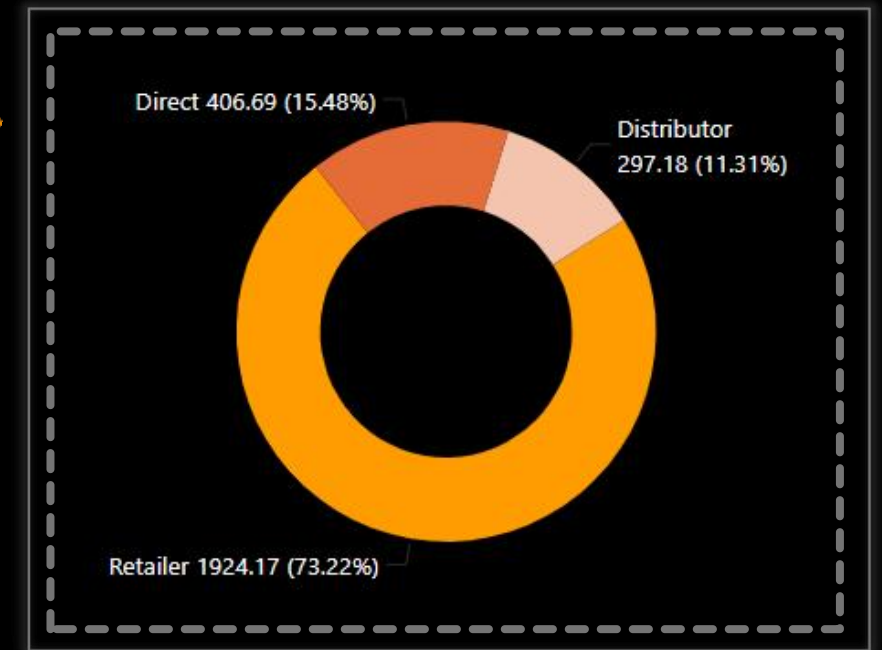
Insights:

- Quarter 1 of FY2020 had the **highest** number of units sold, while Quarter 3 had the **lowest**.
- December recorded the **highest** sales, while March had the **lowest**.
- Quarter 1 contributed approximately **34%** of the total sold quantity for FY2020.

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 %



Insights:

- **Retailer** contributed the most to sales, making up **73.22%** of total sales.
- **Distributor** had the lowest contribution, accounting for only **11.31%**.

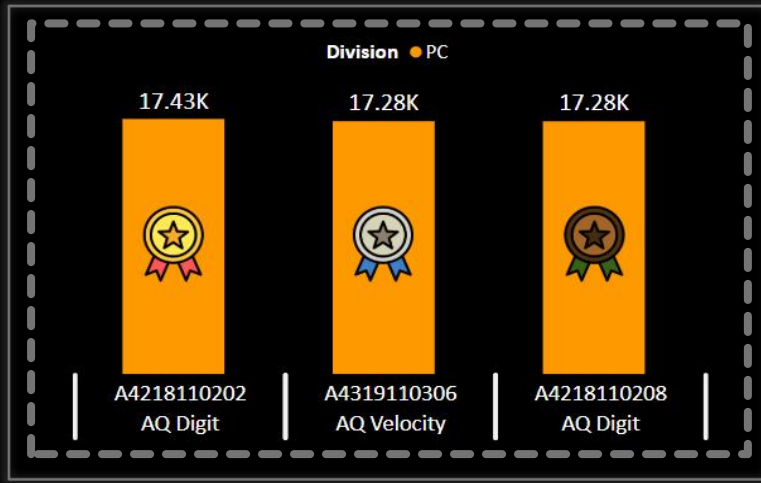
10. Get the Top 3 products in each division that have a high total_sold_quantity in the fiscal_year 2021? The final output contains these fields, division ,product_code, product, total_sold_quantity, rank_order

division , product_code
product , total_sold_quantity
rank_order

division	product_code	product	Total_sold_quantity	Rank_Order
N & S	A6720160103	AQ Pen Drive 2 IN 1 [Premium]	701373	1
N & S	A6818160202	AQ Pen Drive DRC [Plus]	688003	2
N & S	A6819160203	AQ Pen Drive DRC [Premium]	676245	3
P & A	A2319150302	AQ Gamers Ms [Standard 2]	428498	1
P & A	A2520150501	AQ Maxima Ms [Standard 1]	419865	2
P & A	A2520150504	AQ Maxima Ms [Plus 2]	419471	3
PC	A4218110202	AQ Digit [Standard Blue]	17434	1
PC	A4319110306	AQ Velocity [Plus Red]	17280	2
PC	A4218110208	AQ Digit [Premium Misty Green]	17275	3

Insights:

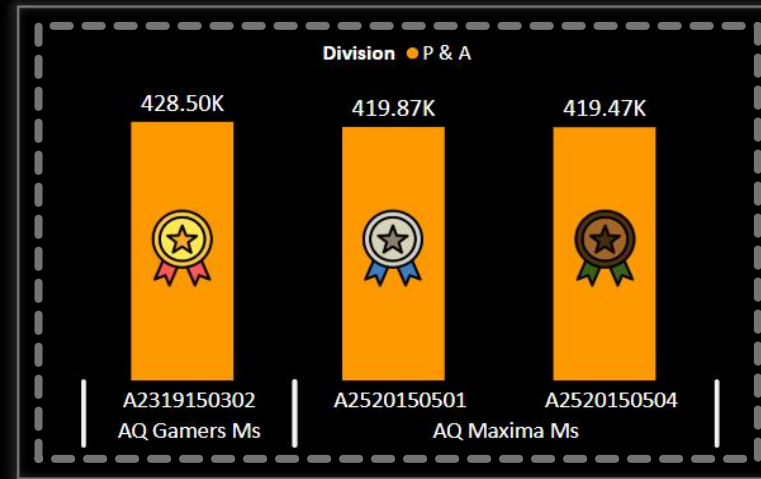
- Each division has a product with **different variants** that appears **twice** in the top three products list.



Standard Blue

Premium Misty Green

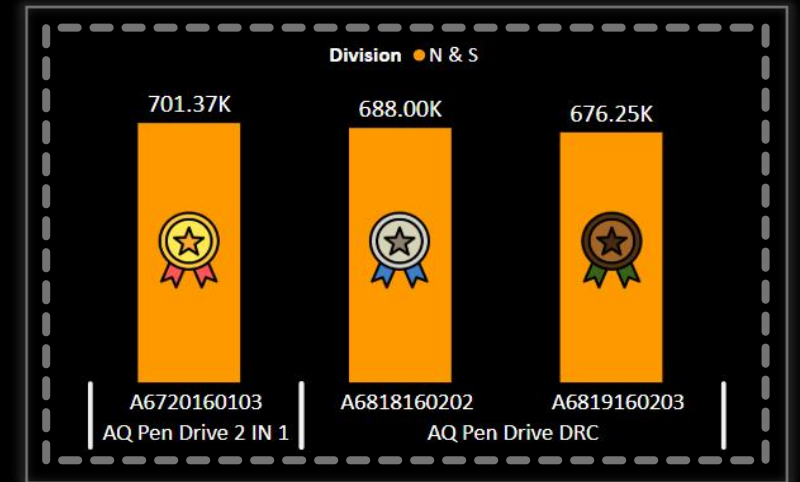
Plus Red



Standard 2

Standard 1

Plus 2



Premium

Plus

Premium

Recommendations

- **Introduce Package Deals** – Bundle **underperforming products** like storage and networking devices with better-performing products like laptops and accessories to boost sales.
- **Offer Targeted Discounts** – Provide higher discounts on **slow-moving items** like storage devices and business desktops, while offering loyalty discounts on high-demand products.
- **Expand Product Variants** – Increase color, size, and feature options for **fast-selling categories** like notebooks and accessories to attract a wider customer base.
- **Enhance Retailer & Online Promotions** – Offer extra incentives to **retailers** who push slow-moving products and run flash sales for customers on **e-commerce platforms**.
- **Leverage Seasonal Demand** – Plan aggressive promotions around peak seasons (festivals, back-to-school, corporate upgrade cycles) to sell more of both **high and low-performing products**.

Conclusion

- After analyzing AtliQ Hardware's business data, I have identified key insights regarding **market trends, product performance, and sales patterns.**
- The analysis reveals that **Notebooks, Accessories, and Peripherals** are the **fastest-growing segments**, while **Storage and Networking** have **slower growth.**
- Sales trends highlight the importance of seasonal demand and channel contributions, with **Retailers** driving the **highest revenue.**
- By implementing strategies such as **targeted discounts, product bundling, and improved marketing for underperforming products**, AtliQ Hardware can **enhance sales, optimize inventory, and improve customer retention.**
- These insights will help in making data-driven decisions to drive future **growth and efficiency.**

THANK YOU

The letters of 'THANK YOU' are large and filled with a photograph of an industrial landscape. The scene shows several tall smokestacks emitting thick white plumes of smoke that rise into a blue sky with scattered white clouds. In the background, there are rolling hills under a clear sky. The overall color palette is dominated by blues, greys, and whites.

DO YOU GOT QUESTIONS ?