

# **Objective**

- 1. Atliq Hardwares is a prominent computer hardware manufacturer located in India.
- 2. The company has a significant presence in international markets.
- 3. The management has identified a lack of sufficient insights to facilitate quick and informed decision-making.
- 4. This gap in data-driven insights hampers the ability to make smart, strategic decisions.
- 5. The company aims to strengthen its data analytics capabilities.

- 6. To expand the data analytics team by hiring several junior data analysts.
- 7. Tony Sharma, the Data Analytics Director, is leading the hiring initiative, seeking candidates with a strong combination of technical and soft skills.
- 8. Tony Sharma, looking for Candidate with desired Skills include technical proficiency in SQL, data manipulation, and analytics tools, along with problem-solving, communication, teamwork, and adaptability.
- 9. the SQL Challenge assesses these skills in real-world scenarios, evaluating candidates' practical abilities, problem-solving approaches, and logical thinking to derive insights from data.
- 10. Atliq Hardwares aims to build a strong, skilled analytics team capable of driving the company forward through data-driven insights and smart decision-making.

# **Atliq Hardware Market**

# **APAC Region**

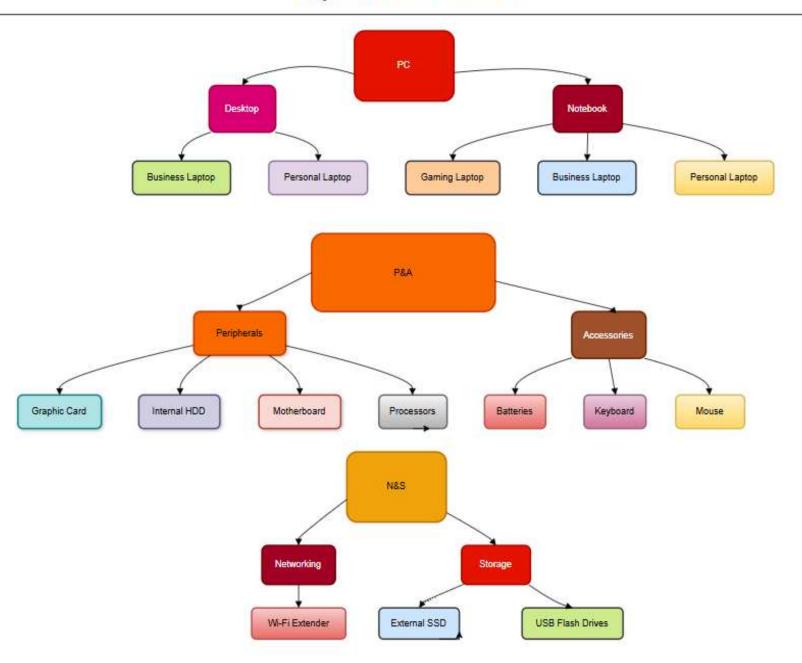


# **EU Region**



# **LATAM Region NA Region** Mexico Canada Columbia CANADA Brazil USA Chile UNIT

#### **Atliq Hardawares Product**



Atliq Hardware's products are categorized into 3 Divisions

1. PC

2. P & A

3. N & S

#### DATA DISTRIBUTION

dim\_product

division VARCHAR(45)

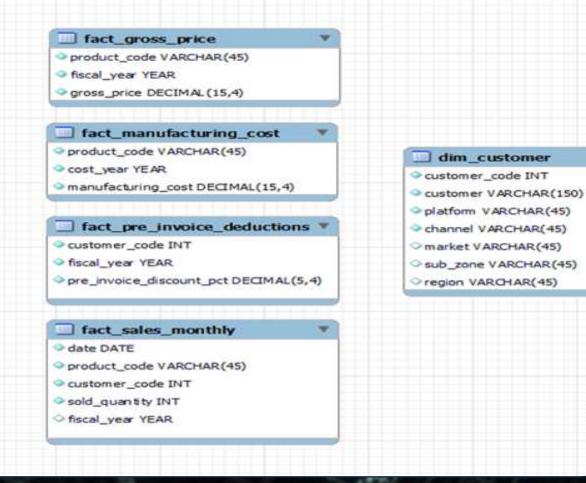
segment VARCHAR(45)

category VARCHAR(45)

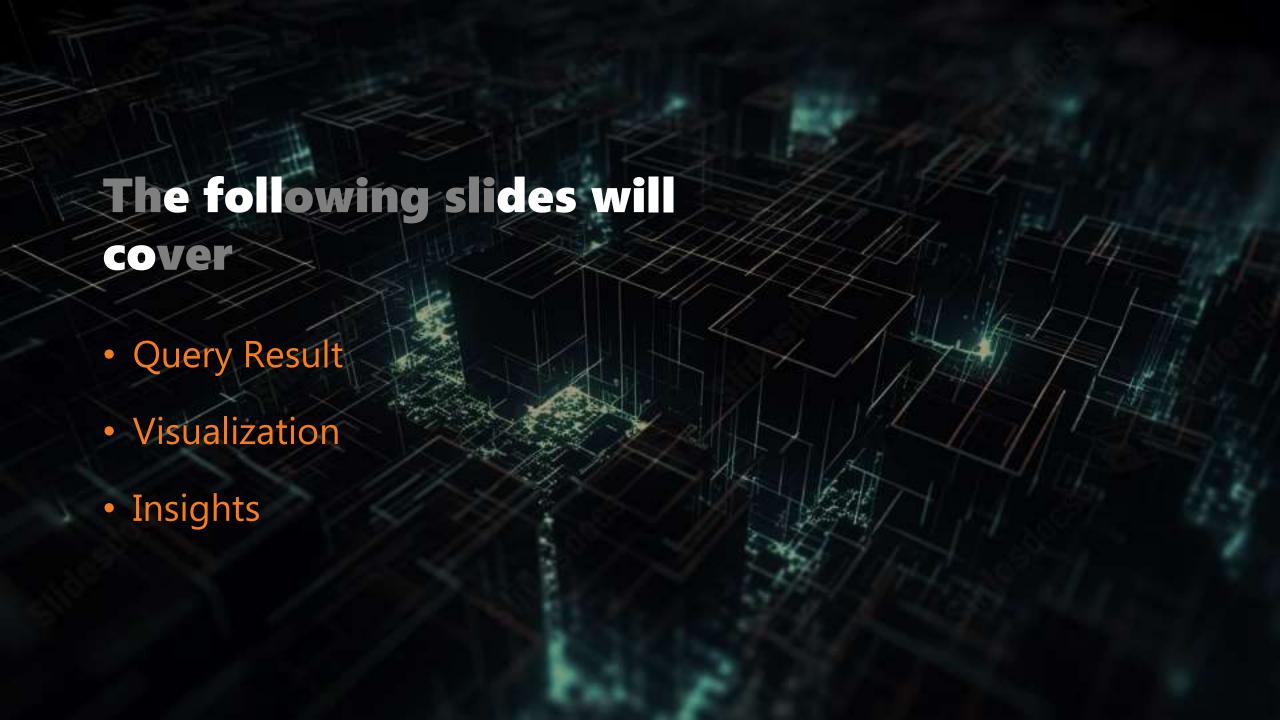
product VARCHAR(200)

variant VAROHAR(45)

product\_code VARCHAR(45)



The input dataset includes sales data for the fiscal years 2020 and 2021, organized into 4 Fact tables and 2 Dimension tables. The Fact tables are: fact gross price, fact manufacturing cost, fact\_pre\_invoice\_deduction, and fact\_sales\_monthly. The Dimension tables are: dim\_customer and dim\_product.

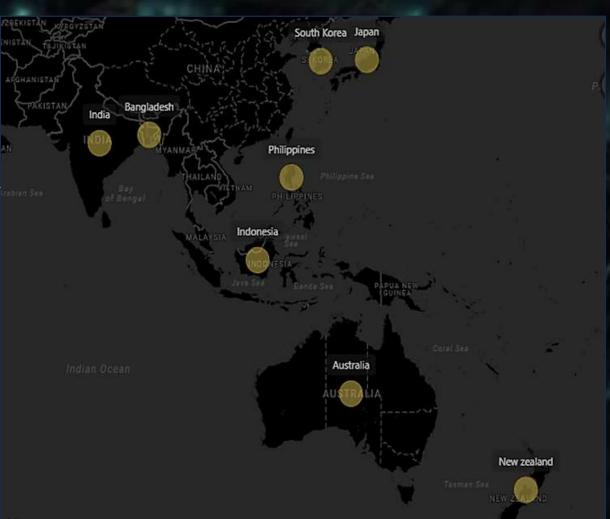


Provide the list of markets in which customer "Atliq Exclusive" operates its business in the APAC region.

# **Output**

market
India
Indonesia
Japan
Philiphines
South Korea
Australia
Newzealand
Bangladesh

# **APAC** region



# **Insights:**

Atliq Exclusive has built a presence across eight key markets.



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 Accessories 20 Peripherals 20 Notebook 17 Storage 9 Desktop 4 Networking 3 Accessories 20 Desktop 4 Networking 3

- 1. Accessories, Peripherals & Notebook have the highest product counts, indicating significant focus and investment in these areas.
- 2. Segments like Storage, Desktop, and Networking have fewer products, highlighting potential areas for growth. Expanding these segments could diversify the product portfolio and address unmet customer needs
- 3. The high product counts in Accessories and Peripherals suggest these segments are key revenue drivers, guiding strategic resource allocation towards these areas.

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_2021	product_count_2020	difference
•	Accessories	19	13	6
	Desktop	3	1	2
	Networking	3	2	1
	Notebook	16	14	2
	Peripherals	20	15	5
	Storage	7	6	1

segment	product_count_2021	product_count_2020	difference	
Accessories	19	13	6	1
Desktop	3	1	2	1
Networking	3	2	1	4
Notebook	16	14	2	1
Peripherals	20	15	5	1
Storage	7	6	1	9

- 1. The Accessories segment saw the highest increase in unique products, with a growth of 6 products from 2020 to 2021. Peripherals followed closely with an increase of 5 products, indicating a strong focus on expanding these segments.
- 2. Even segments with lower overall product counts, such as Networking and Storage, saw incremental increases of 1 product each, demonstrating a consistent effort to enhance the product portfolio across all categories

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

AQ HOME ALIN1 GEN2 (A6120110206)



# Output

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

AQ MASTER WIRED X1



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

#### 0.31 0.3083 Outpu 0.305 0.3038 0.3028 0.3025 average discount percentage customer code customer 0.3 90002009 Flipkart 0.3083 90002006 Viveks 0.3038 0.295 0.2933 90002003 0.3028 Ezone 90002002 0.3025 Croma 0.29 90002016 0.2933 Amazon 0.285 Flipkart Viveks Ezone Croma

- 1. Flipkart received the highest average pre-invoice discount percentage of 0.3083%, followed by Viveks with a discount percentage of 0.3038%.
- 2. The difference in average discount percentages among the top 5 customers is minimal, indicating that Atliq Hardware provides a nearly equal discount percentage to its large-volume customers in the Indian market to improve market share.

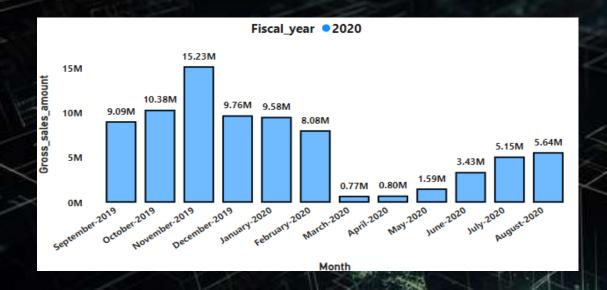
Get the complete report of the Gross sales amount for the customer "Atliq Exclusive" for each month. This analysis helps to get an idea of low and high-performing months and take strategic decisions. The final report contains these columns:,

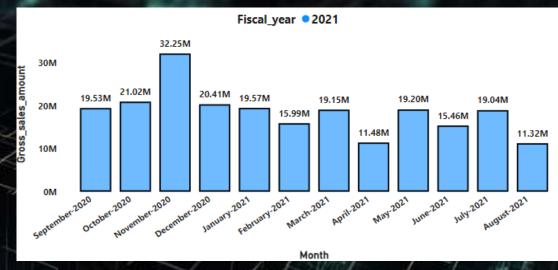
Month, Year, Gross sales Amount

# Output

Month	Fiscal_year	Gross_sales_amount
September (2019)	2020	9092670.34
October (2019)	2020	10378637.6
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	5151815.4
August (2020)	2020	5638281.83
September (2020)	2021	19530271.3
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	11483530.3
May (2021)	2021	19204309.41
June (2021)	2021	15457579.66
July (2021)	2021	19044968.82
August (2021)	2021	11324548.34

Note: Gross sales amount highlighted in green are above the average Gross sales amount.



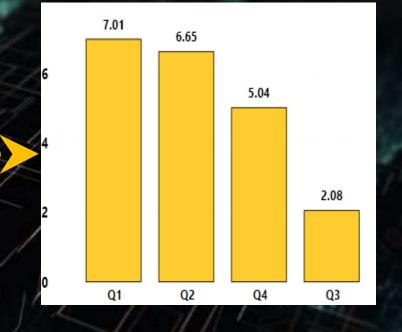


- 1. There is a noticeable peak in sales during the months of September, October, and November for both fiscal years 2020 and 2021.
- 2. The months of March, April, and May in FY 2020 showed relatively low sales, this is due to pandemic however Atliq Excusive have bounced back from Sep 2020 to Aug 2021

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.

# Output

quarters	total_sold_quantity_in_mln
Q1	7.01
Q2	6.65
Q4	5.04
Q3	2.08



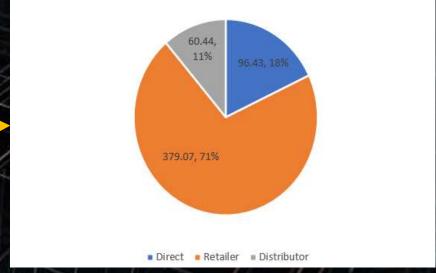
- 1. The first quarter (Q1) of 2020 recorded the highest total sold quantity, amounting to 7.01 million units, This indicates a strong start to the year.
- 2. The sharp decline in Q3 could be attributed to external factors such as the pandemic's impact, supply chain disruptions, or changes in market conditions. It indicates that Q3 was the most challenging quarter for Atliq in terms of sales volume.
- 3. Despite the overall decline, maintaining relatively higher sales in Q4 compared to Q3 indicates some recovery. Continued focus on adaptive strategies and market responsiveness will be essential for sustaining sales.

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

gross_sales_mln	percentage
96.43	17.99
379.07	70.73
60.44	11.28
	96.43 379.07



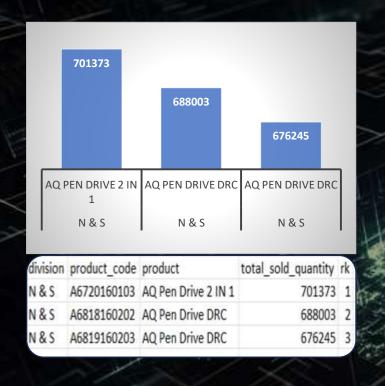
- 1. With over 70% of the gross sales coming from the Retailer channel, Atliq should focus on strengthening and expanding its retailer network. This could involve offering better terms, support, and incentives to retailers.
- 2. The Direct channel presents a growth opportunity. Atliq should explore ways to increase direct sales through enhanced marketing efforts, better customer service, and leveraging e-commerce platforms
- 3. Even though the Distributor channel contributes the least, optimizing this channel can lead to incremental sales growth. This may involve improving logistics, inventory management, and distributor support.

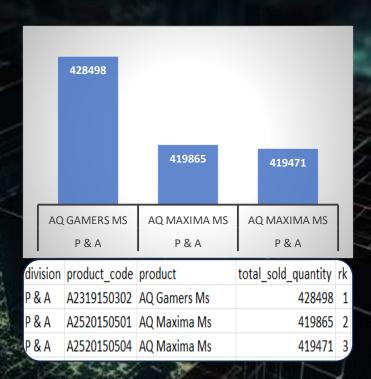
Get the Top 3 products in each division that have a high total\_sold\_quantity in the fiscal year 2021? The final output contains these fields,

division, product\_code, product, total\_sold\_quantity, rank\_order.

# Output

division	product_code	product	total_sold_quantity	rk
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







- 1. **N & S Division**: The top 3 products with the highest total sold quantity are all variations of AQ Pen Drives. This indicates a strong demand for storage solutions in this division, **Top Product**: AQ Pen Drive 2 IN 1 with a total sold quantity of 701,373 units.
- 2. **P & A Division**: The top products are gaming and high-performance mouse models, indicating a demand for gaming and precision peripherals, **Top Product**: AQ Gamers Ms with a total sold quantity of 428,498 units.
- 3. **PC Division**: The top products are different models of keyboards, showing a need for reliable input devices, **Top Product**: AQ Digit with a total sold quantity of 17,434 units.

# Few Suggestions where Atliq Hardware can improve:

- 1. Regularly seek feedback from customers, especially those who purchase top-selling products, to understand their needs and preferences. Use this feedback to guide product development and improvements.
- 2. Implement loyalty programs to reward repeat customers, encouraging them to continue purchasing Atliq Hardware products. Offer exclusive discounts, early access to new products, and other perks.
- 3. Improve the online shopping experience on your website and other e-commerce platforms. Ensure product pages are detailed, with high-quality images, videos, and customer reviews.
- 4. Utilize advanced inventory management systems to keep track of stock levels and predict demand. Ensure that popular products are always in stock to avoid missed sales opportunities.
- 5. Optimize the distribution network to ensure timely delivery of products. Consider partnering with reliable logistics providers to enhance delivery speed and reliability.

- 6. Strengthen relationships with retailers and distributors to increase the availability of products in physical stores. Offer training to retail staff so they can effectively promote and sell your products.
- 7. Increase focus on direct-to-consumer (DTC) sales through your website. Offer exclusive products or bundles that are only available online to drive traffic to your site.
- 8. Invest in research and development to innovate and stay ahead of competitors. Regularly update and improve existing products to incorporate the latest technology and customer feedback.
- 9. Maintain high-quality standards to ensure customer satisfaction and reduce returns. Implement rigorous testing and quality control processes to uphold the reputation of Atliq Hardware.
- 10. Regularly review and adjust pricing strategies to stay competitive. Introduce attractive promotions and discounts to drive sales and attract new customers

By focusing on these areas, Atliq Hardware can enhance its sales performance, strengthen customer relationships, and maintain a competitive edge in the market.

