



Atliq Hardwares

Consumer Goods Ad-hoc Insights

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Agenda



About Atliq Hardware

- Company overview
- Data model& markets



Approach

- Run a SQL query
- Visualizations
- Summary of Insights



Objective



Problems

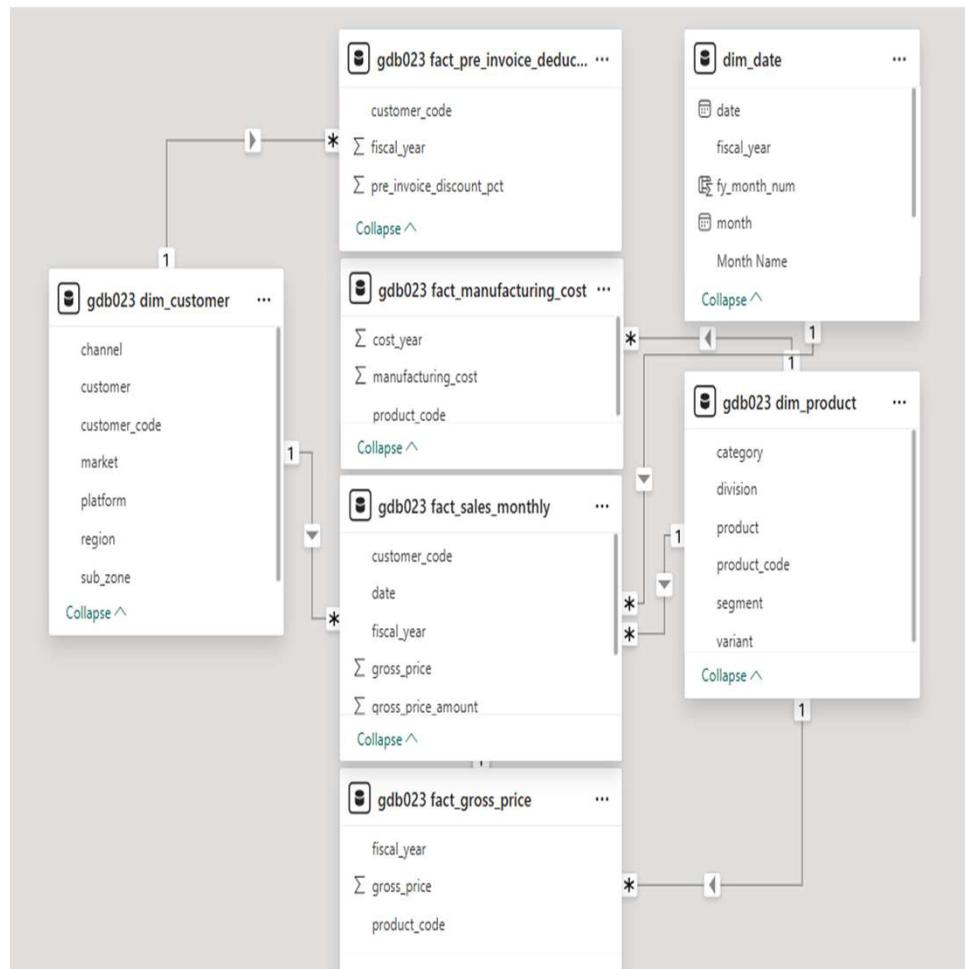
- 10 ad-hoc requests

About Atliq Hardwares

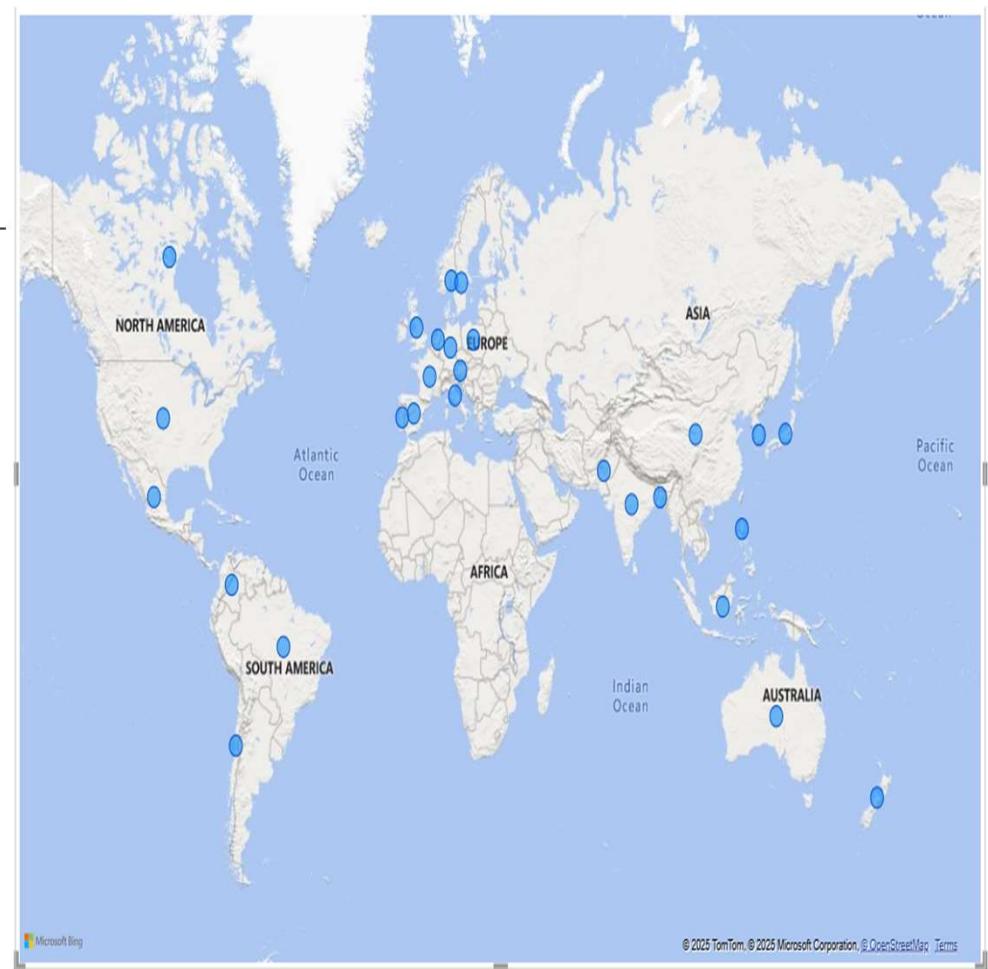


- Atliq Hardware is a leading computer hardware producers in India and has expanded well in other countries too.

Data Model



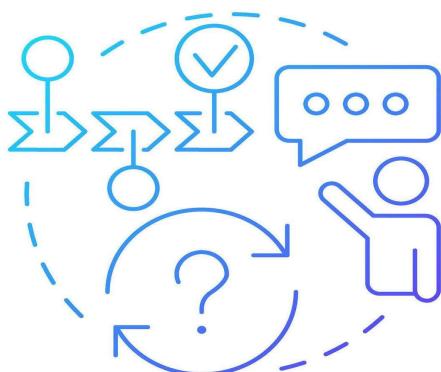
Market



OBJECTIVE

- To analyze overall sales and performance of Atliq hardware.
- To identify top-performing products, divisions and channels
- Improve the quality of decision-making by providing the management with quick and data informed insights.

Ad-hoc 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.
- 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.



Let's see query results,
insights and visualization

Request 1:

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

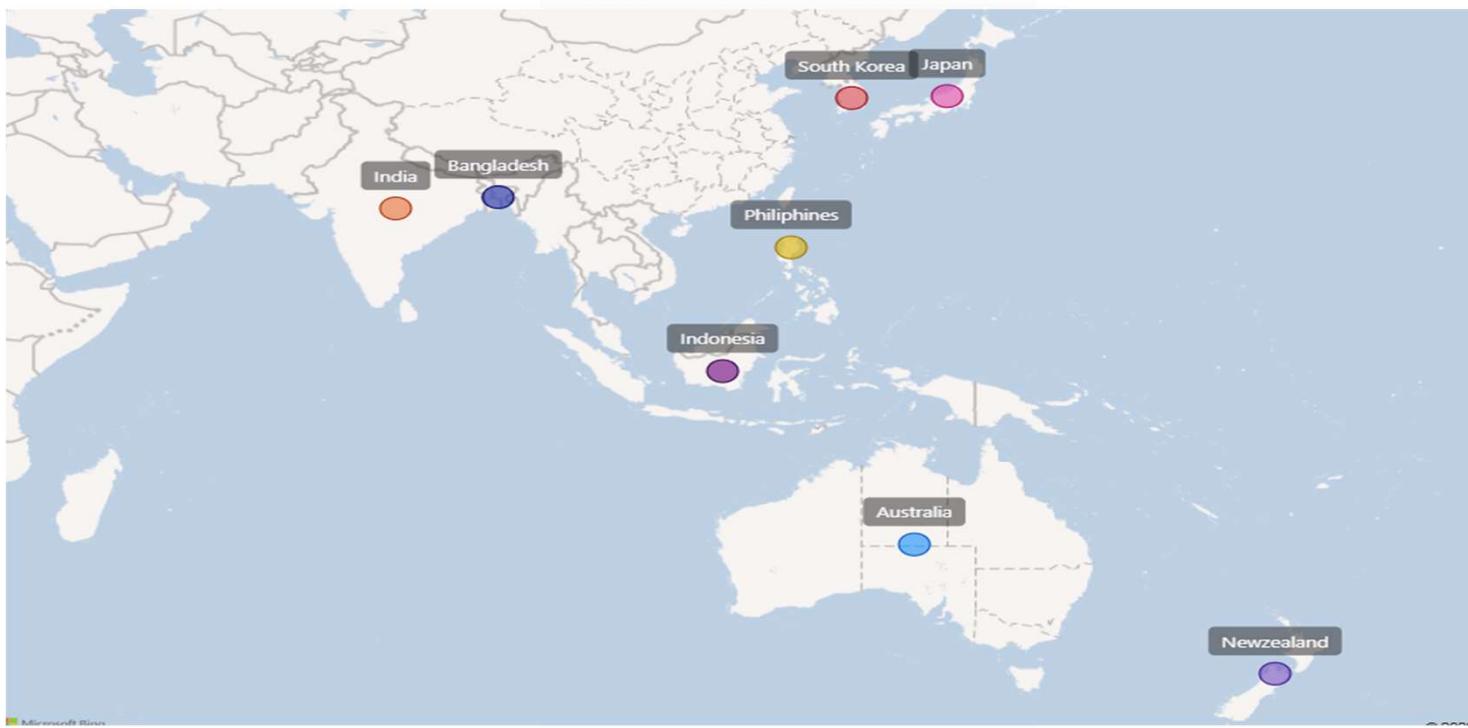
```
SELECT market FROM dim_customer  
WHERE customer ="Atliq exclusive" AND region ="APAC"  
GROUP BY market  
ORDER BY market;
```

OUTPUT

market
Australia
Bangladesh
India
Indonesia
Japan
Newzealand
Philiphines
South Korea

Insights

In the APAC region, Atliq Exclusive store has established its presence in 8 major markets.



Request 2:

What is the percentage of unique product increase in 2021 vs. 2020?

```
WITH cte1 AS (
    SELECT COUNT(DISTINCT product_code) AS unique_products_2020
    FROM fact_sales_monthly
    WHERE fiscal_year=2020),
    
    cte2 AS (
        SELECT COUNT(DISTINCT product_code) AS unique_products_2021
        FROM fact_sales_monthly
        WHERE fiscal_year=2021)
    SELECT unique_products_2020, unique_products_2021,
    ROUND(
        (unique_products_2021-unique_products_2020)*100/unique_products_2020,2)
    AS percentage_chg
    FROM cte1
    CROSS JOIN cte2 ;
```

OUTPUT

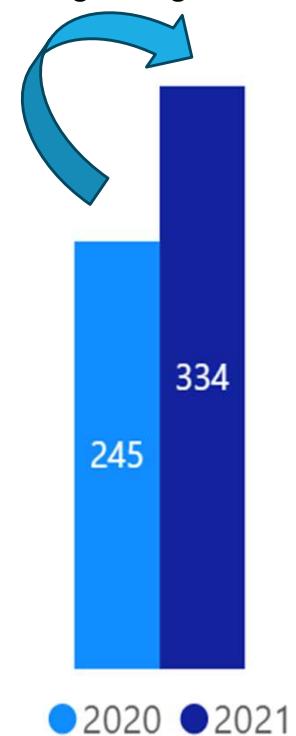


	unique_products_2020	unique_products_2021	percentage_chg
▶	245	334	36.33

Insights

Atliq Hardware strengthened its market presence in FY 2021 by expanding its product portfolio by **36%**(245 to **334** products).

Percentage changes 36.33



Request 3:

Provide a report with all the unique product counts for each segment and sort them in descending order of product counts.

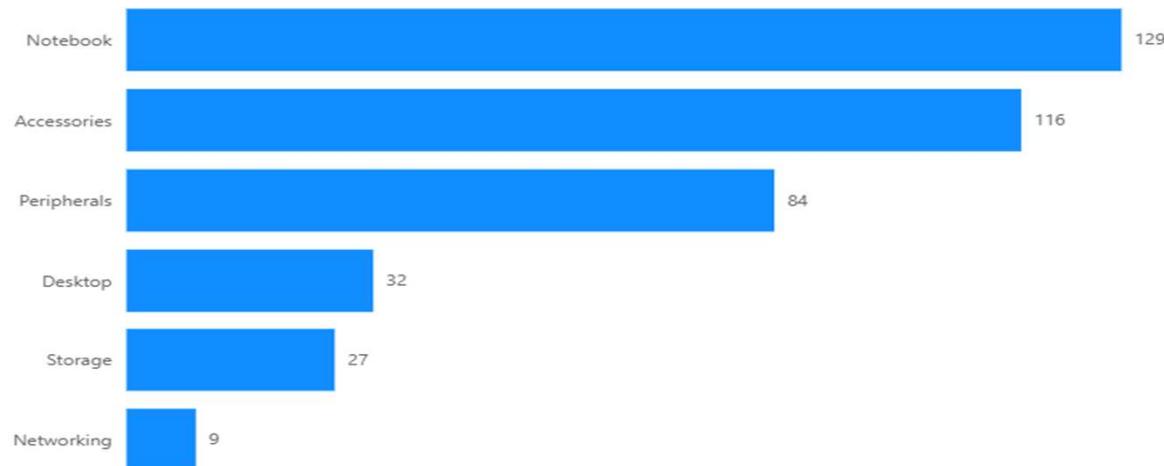
```
SELECT segment,  
       COUNT(DISTINCT product_code) AS product_count  
  FROM dim_product  
 GROUP BY segment  
 ORDER BY product_count DESC ;
```

OUTPUT

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

Insights

Product concentration is high in **Notebook, Accessories and Peripherals** (averaging- 110 products each), while **Desktop, Storage** and **Networking** were under-represented with only 23 products per segment highlighting clear opportunities for portfolio expansion in these categories.



Request 4:

Follow-up: Which segment had the most increase in unique products in 2021 vs 2020?

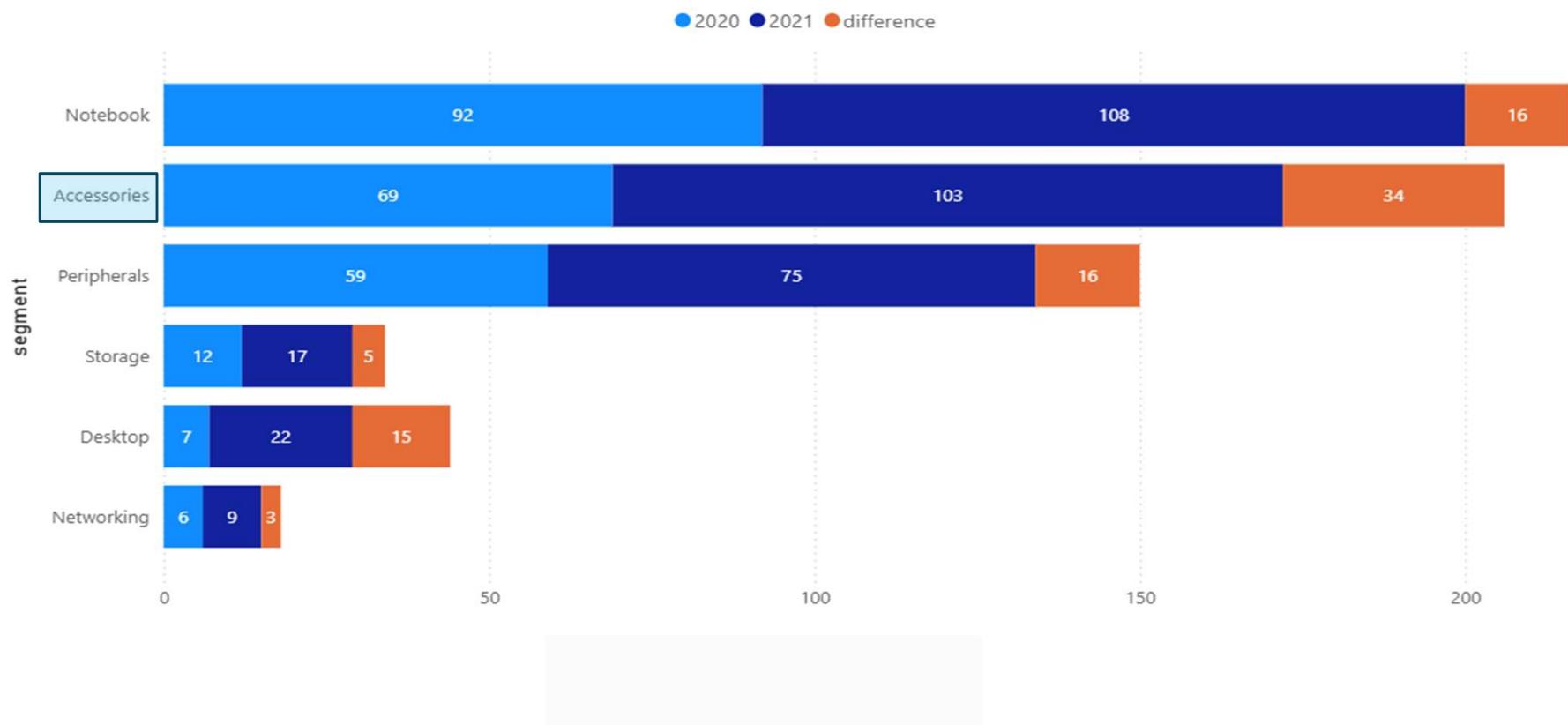
```
WITH unique_products AS (
  SELECT
    p.segment,
    COUNT(DISTINCT CASE WHEN fiscal_year=2020 THEN
      s.product_code END) AS product_count_2020,
    COUNT(DISTINCT CASE WHEN fiscal_year=2021 THEN
      s.product_code END) AS product_count_2021
  FROM fact_sales_monthly s
  JOIN dim_product p ON
    s.product_code=p.product_code
  GROUP BY segment)
  SELECT
    segment, product_count_2020,
    product_count_2021,
    product_count_2021-product_count_2020 AS difference
  FROM unique_products
  ORDER BY difference DESC;
```

	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

OUTPUT

Insights

Accessories emerged as the fastest growing segment in FY 2021 with **34** new products added YoY highlighting Atliq Hardware's strategic focus on accessories diversification.

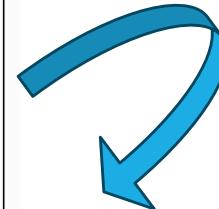


Request 5:

Get the products that have the highest and lowest manufacturing costs.

```
WITH ranked AS (
  SELECT
    p.product, p.product_code, c.manufacturing_cost,
    RANK() OVER (ORDER BY c.manufacturing_cost DESC) AS max_rank,
    RANK() OVER (ORDER BY c.manufacturing_cost ASC) AS min_rank
  FROM fact_manufacturing_cost c
  JOIN dim_product p
  ON c.product_code=p.product_code
)
SELECT
  product, product_code, manufacturing_cost
FROM ranked
WHERE min_rank=1 OR max_rank=1
ORDER BY max_rank ASC;
```

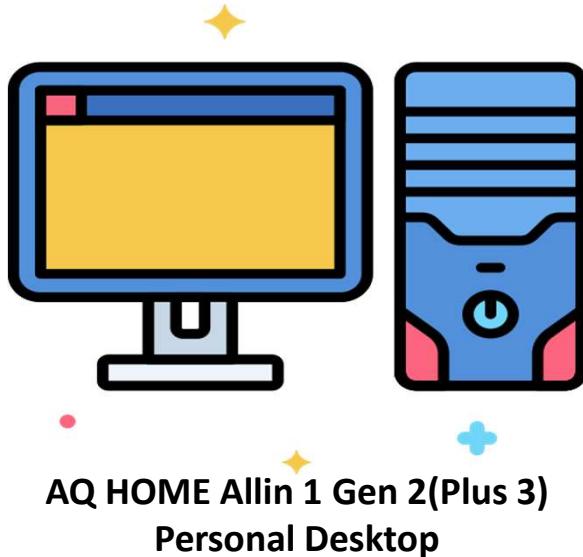
OUTPUT



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

Insights

Highest manufacturing cost



AQ HOME Allin 1 Gen 2(Plus 3)
Personal Desktop

Lowest manufacturing cost



AQ Master wired x1 Ms 2(Standard)
Mouse

240.54\$

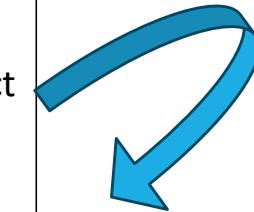
0.89\$

Request 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.

```
SELECT
    d.customer_code, c.customer,
    CONCAT(ROUND(AVG(d.pre_invoice_discount_pct)*100,2), "%") AS avg_discount_pct
FROM fact_pre_invoice_deductions d
JOIN dim_customer c
USING (customer_code)
WHERE d.fiscal_year=2021 AND c.market="India"
GROUP BY d.customer_code, c.customer
ORDER BY AVG(d.pre_invoice_discount_pct) DESC
LIMIT 5 ;
```

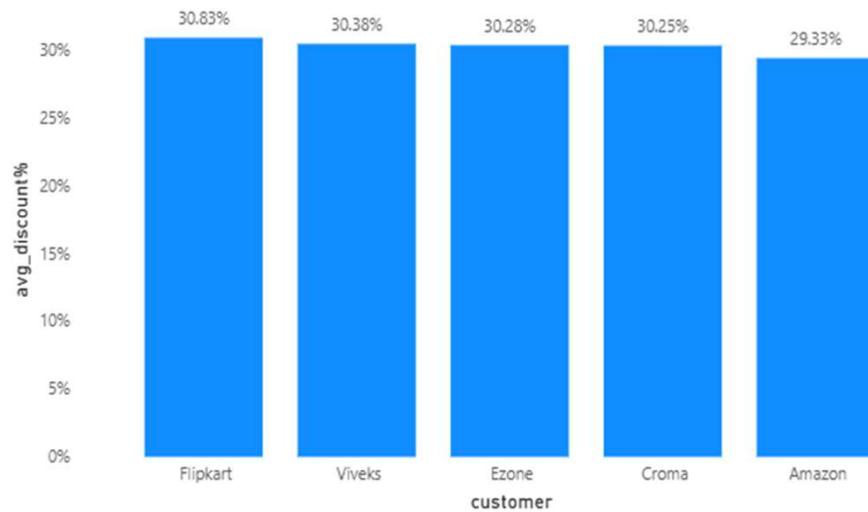
OUTPUT



	customer_code	customer	avg_discount_pct
▶	90002009	Flipkart	30.83%
	90002006	Viveks	30.38%
	90002003	Ezone	30.28%
	90002002	Croma	30.25%
	90002016	Amazon	29.33%

Insights

In FY 2021, Atliq Hardware offered nearly uniform pre-invoice discounts to its top 5 customers in the Indian market, with discount rates clustered around 29-31%; **Flipkart** received the highest average discount at **30.83%**.



Request 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.

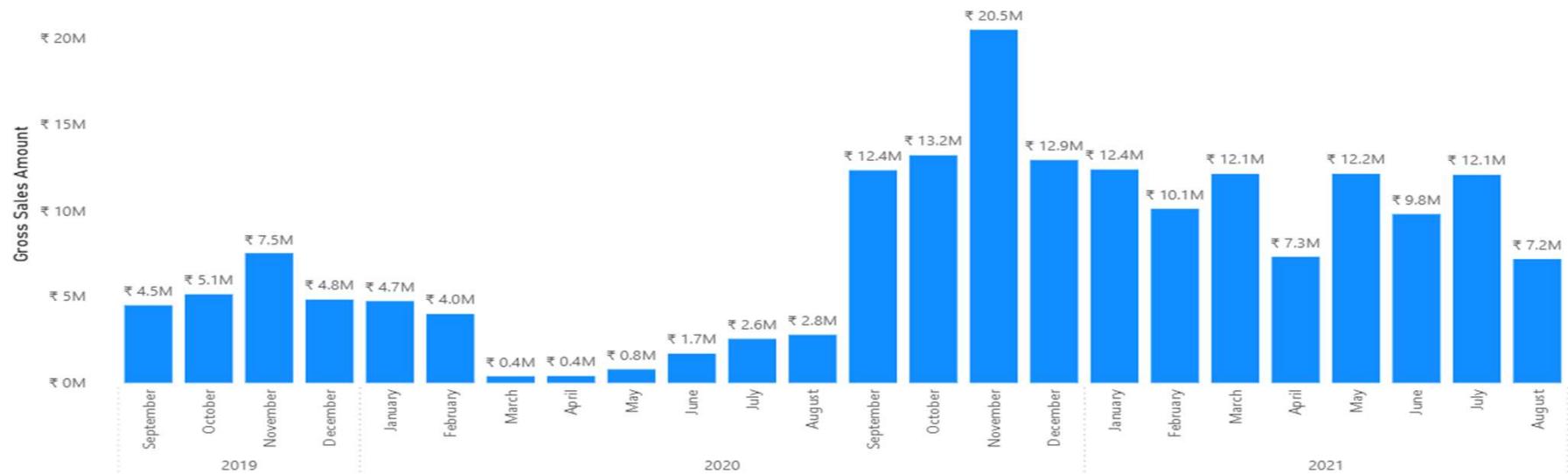
```
SELECT
    monthname(s.date) AS month,
    year(s.date) AS year,
    ROUND(SUM(g.gross_price*s.sold_quantity)/1000000,2)
        AS gross_sales_amount
FROM fact_sales_monthly s
JOIN fact_gross_price g
ON s.product_code=g.product_code
AND g.fiscal_year=s.fiscal_year
JOIN dim_customer c
ON s.customer_code= c.customer_code
WHERE customer="Atliq Exclusive"
GROUP BY month, year
ORDER BY year ASC ;
```

OUTPUT

	month	year	gross_sales_amount
▶	September	2019	4.50
	October	2019	5.14
	November	2019	7.52
	December	2019	4.83
	January	2020	4.74
	February	2020	4.00
	March	2020	0.38
	April	2020	0.40
	May	2020	0.78
	June	2020	1.70
	July	2020	2.55
	August	2020	2.79
	September	2020	12.35
	October	2020	13.22
	November	2020	20.46
	December	2020	12.94
	January	2021	12.40
	February	2021	10.13
	March	2021	12.14
	April	2021	7.31
	May	2021	12.15
	June	2021	9.82
	July	2021	12.09
	August	2021	7.18

Insights

For Atliq Exclusive, November 2020 recorded the highest gross sales, while March 2020 saw the lowest sales, primarily due to the impact of COVID-19. Sales performance showed a steady recovery from August 2020 onwards.



Request 8:

In which quarter of 2020, got the maximum total_sold_quantity?

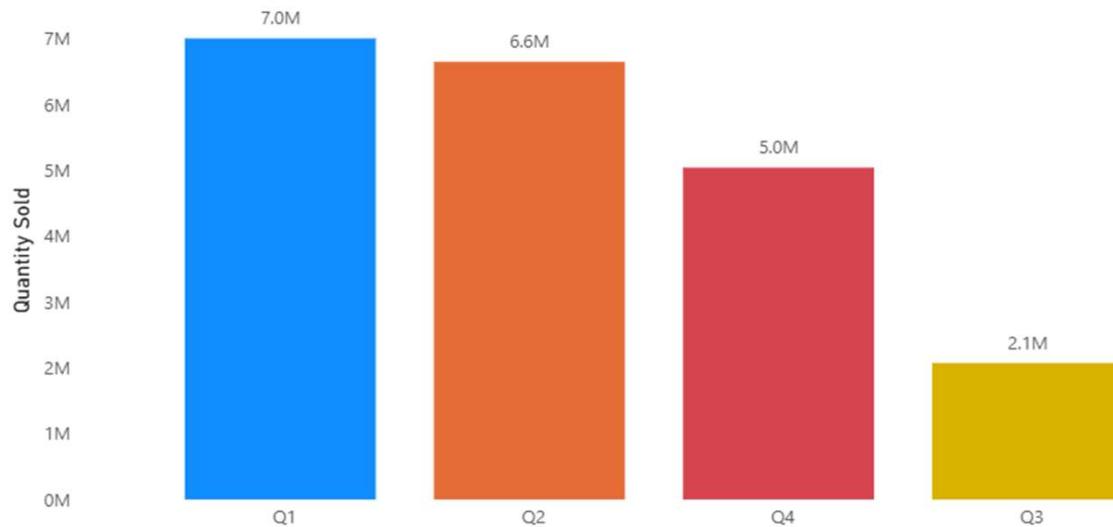
```
SELECT (
  CASE
    WHEN month(date) IN (9,10,11) THEN "Q1"
    WHEN month(date) IN (12,1,2) THEN "Q2"
    WHEN month(date) IN (3,4,5) THEN "Q3"
    WHEN month(date) IN (6,7,8) THEN "Q4"
  END) AS Quarter,
  SUM(sold_quantity) AS total_sold_quantity
FROM fact_sales_monthly
WHERE fiscal_year=2020
GROUP BY Quarter
ORDER BY total_sold_quantity DESC ;
```

OUTPUT

Quarter	total_sold_quantity
Q1	7005619
Q2	6649642
Q4	5042541
Q3	2075087

Insights

Sold quantity declined sharply to 2.1M in Q3(March-May) of FY 2020 during the peak of COVID-19. However, demand recovered in Q4 with Q1 recording the highest quantity sold.



Request 9:

Which channel helped to bring more gross sales in the fiscal year 2021 and the percentage of contribution?

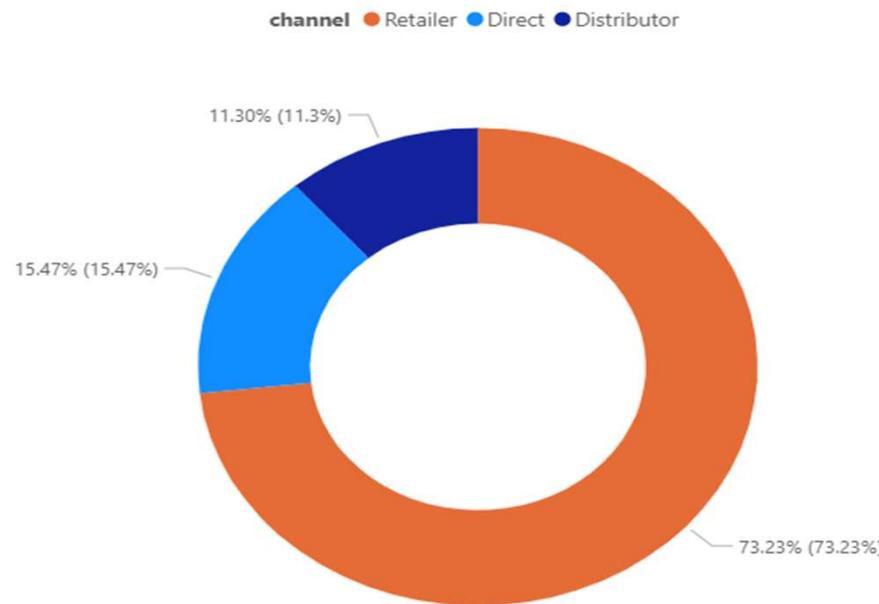
```
WITH cte1 AS (
    SELECT
        c.channel,
        ROUND(SUM((s.sold_quantity*g.gross_price)/1000000),2) AS gross_sales_mln
    FROM dim_customer c
    JOIN fact_sales_monthly s
    ON c.customer_code=s.customer_code
    JOIN fact_gross_price g
    ON s.product_code=g.product_code
    WHERE s.fiscal_year=2021
    GROUP BY c.channel )
    SELECT
        *,
        CONCAT(ROUND(gross_sales_mln*100/SUM(gross_sales_mln) OVER(),2),"%")
        AS pct_distribution
    FROM cte1
    ORDER BY pct_distribution DESC ;
```

OUTPUT

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

Insights

In FY 2021, the majority of sales were generated through retailers, contributing approximately 73% of total sales. Direct and distributor channels together accounted for the remaining 27% indicating a strong reliance on the retail channel.

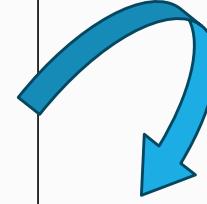


Request 10:

Get the Top 3 products in each division that have a high total_sold_quantity in the fiscal_year 2021?

```
WITH cte1 AS (
    SELECT
        p.division, s.product_code, p.variant, p.product,
        SUM(s.sold_quantity) AS total_sold_qty,
        DENSE_RANK() OVER( PARTITION BY p.division ORDER BY
            SUM(s.sold_quantity) DESC) AS rank_order
    FROM fact_sales_monthly s
    JOIN dim_product p
    ON s.product_code=p.product_code
    WHERE s.fiscal_year=2021
    GROUP BY p.division, s.product_code, p.product, p.variant
)
SELECT
    division,
    CONCAT(product," ", variant) AS product_variant,
    product_code, total_sold_qty, rank_order
FROM cte1
WHERE rank_order<=3
ORDER BY division, rank_order;
```

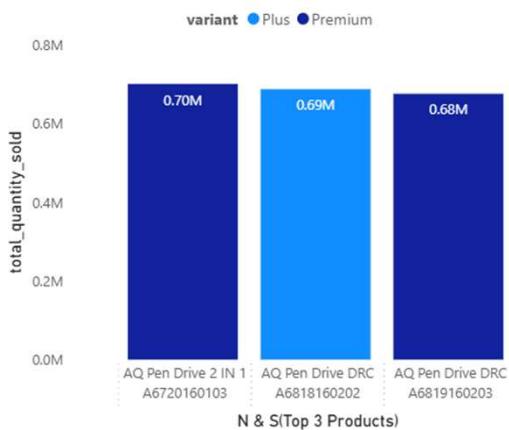
OUTPUT



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

Insights

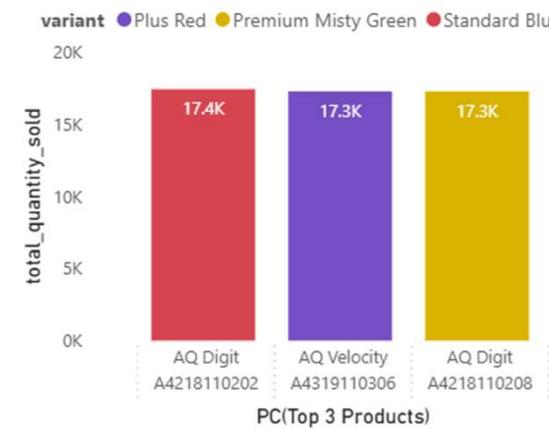
In FY 2021, the top 3 selling products in N&S were pen drives with total sales around 7 lakhs units.



In FY 2021, the top 3 selling products in P&A were mouse models selling around 4 lakhs units in total.



In FY 2021, the top 3 selling products in PC category were personal laptops with combined sales of approximately 17,000 units.



Thank you