



# Atliq Hardware

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Requests:

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

Answer:

```
SELECT
    distinct market
FROM dim_customer
where customer = "Atliq Exclusive"
and region = "APAC";
```

A screenshot of a database query result. It shows a table with a single column labeled 'market'. The table contains a list of countries: India, Indonesia, Japan, Philippines, South Korea, Australia, Newzealand, and Bangladesh. The first row (India) is highlighted with a blue background, and the last row (Bangladesh) is highlighted with a yellow background. There is a small black triangle icon to the left of the 'India' row.

market
India
Indonesia
Japan
Philippines
South Korea
Australia
Newzealand
Bangladesh

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.

Answer:

```
WITH unique_products AS (
    SELECT
        fiscal_year,
        COUNT(DISTINCT product_code) AS unique_products
    FROM fact_sales_monthly
```

```

WHERE fiscal_year IN (2020, 2021)

GROUP BY fiscal_year

)

SELECT
    MAX(CASE WHEN fiscal_year = 2020 THEN unique_products END) AS unique_products_2020,
    MAX(CASE WHEN fiscal_year = 2021 THEN unique_products END) AS unique_products_2021,
    round((MAX(CASE WHEN fiscal_year = 2021 THEN unique_products END) - MAX(CASE WHEN fiscal_year
= 2020 THEN unique_products END)) * 100.0 /
    MAX(CASE WHEN fiscal_year = 2020 THEN unique_products END), 2) AS percentage_chg
FROM
    unique_products;

```

	unique_products_2020	unique_products_2021	percentage_chg
▶	245	334	36.33

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

Answer:

```

select
    segment,
    count(distinct(product_code)) as product_count
from dim_product
group by segment
order by product_count desc;

```

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

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

Answer:

```
WITH unique_products AS (  
    SELECT  
        dim_product.segment,  
        fiscal_year,  
        COUNT(DISTINCT product_code) AS unique_products  
    FROM fact_sales_monthly join dim_product using (product_code)  
    WHERE fiscal_year IN (2020, 2021)  
    GROUP BY dim_product.segment, fiscal_year  
)
```

```
SELECT  
    segment,  
    MAX(CASE WHEN fiscal_year = 2020 THEN unique_products END) AS product_count_2020,  
    MAX(CASE WHEN fiscal_year = 2021 THEN unique_products END) AS product_count_2021,  
    (MAX(CASE WHEN fiscal_year = 2021 THEN unique_products END) - MAX(CASE WHEN fiscal_year = 2020  
    THEN unique_products END)) AS difference  
FROM  
    unique_products  
group by segment;
```

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

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

Answer:

```
WITH manufacturing_costs AS (  
    SELECT  
        dp.product_code,  
        dp.product,  
        fmc.manufacturing_cost,  
        RANK() OVER (ORDER BY fmc.manufacturing_cost DESC) AS rank_highest,  
        RANK() OVER (ORDER BY fmc.manufacturing_cost ASC) AS rank_lowest  
    FROM dim_product dp  
    JOIN fact_manufacturing_cost fmc  
    ON dp.product_code = fmc.product_code  
)
```

```
SELECT  
    product_code,  
    product,  
    round(manufacturing_cost, 2)  
FROM manufacturing_costs  
WHERE rank_highest = 1 OR rank_lowest = 1;
```

product_code	product	manufacturing_cost
A2118150101	AQ Master wired x1 Ms	0.89
A6120110206	AQ HOME Allin1 Gen 2	240.54

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

Answer:

```
select
    customer_code,
    c.customer,
    ROUND(pre_invoice_discount_pct*100,2) AS average_discount_percentage
from fact_pre_invoice_deductions
join dim_customer c using(customer_code)
where pre_invoice_discount_pct >
(select avg(pre_invoice_discount_pct) as average_discount_percentage
from fact_pre_invoice_deductions
where fiscal_year = 2021)
and fiscal_year = 2021
and c.market = "India"
ORDER BY pre_invoice_discount_pct DESC
LIMIT 5;
```

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

7. Get the complete report of the Gross sales amount for the customer “Atliq Exclusive” for each month. The final report contains these columns: Month Year Gross sales Amount

Answer:

```
select
    month(sm.date) as Month,
    year(sm.date) as Year,
    round(sum(sm.sold_quantity*gp.gross_price)) as Gross_Sales_Amount
from fact_sales_monthly sm
join fact_gross_price gp
    on sm.product_code = gp.product_code
    and sm.fiscal_year = gp.fiscal_year
join dim_customer c
    on sm.customer_code = c.customer_code
where c.customer = "Atliq Exclusive"
group by sm.date
order by Year and Month asc;
```

Month	Year	Gross_Sales_Amount
9	2019	4496260
10	2019	5135902
11	2019	7522893
12	2019	4830405
1	2020	4740600
2	2020	3996228
3	2020	378771
4	2020	395035
5	2020	783813
6	2020	1695217
7	2020	2551159
8	2020	2786648
9	2020	12353510
10	2020	13218636
11	2020	20464999
12	2020	12944660
1	2021	12399393
2	2021	10129736
3	2021	12144061
4	2021	7312000
5	2021	12150225
6	2021	9824521
7	2021	12092346
8	2021	7178708

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

Answer:

```
SELECT
    quarter(DATE_ADD(date, INTERVAL 4 MONTH)) 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;
```

quarter	total_sold_quantity
1	7005619
2	6649642
4	5042541
3	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

Answer:

```
with cte1 as
(
    select
        c.channel,
        round(sum(sm.sold_quantity*gp.gross_price)) as gross_sales_Mln
    from fact_sales_monthly sm
    join fact_gross_price gp
        on sm.product_code = gp.product_code
        and sm.fiscal_year = gp.fiscal_year
    join dim_customer c
        on sm.customer_code = c.customer_code
    where year(date) = 2021
    group by c.channel)

```

```

SELECT
    channel,
    gross_sales_mln,
    ROUND(gross_sales_mln/(SELECT sum(gross_sales_mln) FROM cte1)*100) AS percentage
FROM cte1
ORDER BY percentage DESC;

```

channel	gross_sales_mln	percentage
Retailer	705532519	73
Direct	150664256	16
Distributor	107332599	11

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.

Answer:

```

with cte1 AS
    (SELECT
        division,
        sm.product_code,
        product,
        sum(sold_quantity) AS total_sold_quantity
    FROM fact_sales_monthly sm
    JOIN dim_product p
        ON sm.product_code=p.product_code
    WHERE "2021"
    GROUP BY p.product_code, p.division, p.product
    ORDER BY p.division DESC, total_sold_quantity desc)

SELECT * FROM ( SELECT *, row_number() OVER(PARTITION BY division ORDER BY total_sold_quantity
DESC) AS rank_order FROM cte1)

```



RANKED

WHERE rank\_order <= 3;

division	product_code	product	total_sold_quantity	rank_order
N & S	A6720160103	AQ Pen Drive 2 IN 1	1159222	1
N & S	A6818160201	AQ Pen Drive DRC	1128104	2
N & S	A6419160301	AQ Clx1	729696	3
P & A	A2319150302	AQ Gamers Ms	683634	1
P & A	A2219150204	AQ Master wireless x1 Ms	682321	2
P & A	A2319150306	AQ Gamers Ms	681531	3
PC	A4218110202	AQ Digit	26012	1
PC	A4319110306	AQ Velocity	25978	2
PC	A4118110107	AQ Aspirom	25963	3