



**SQL Project**

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# **FINANCE AND SUPPLY CHAIN ANALYTICS AT ATLIQ HARDWARE**

Presented by  
Yadula Kumar

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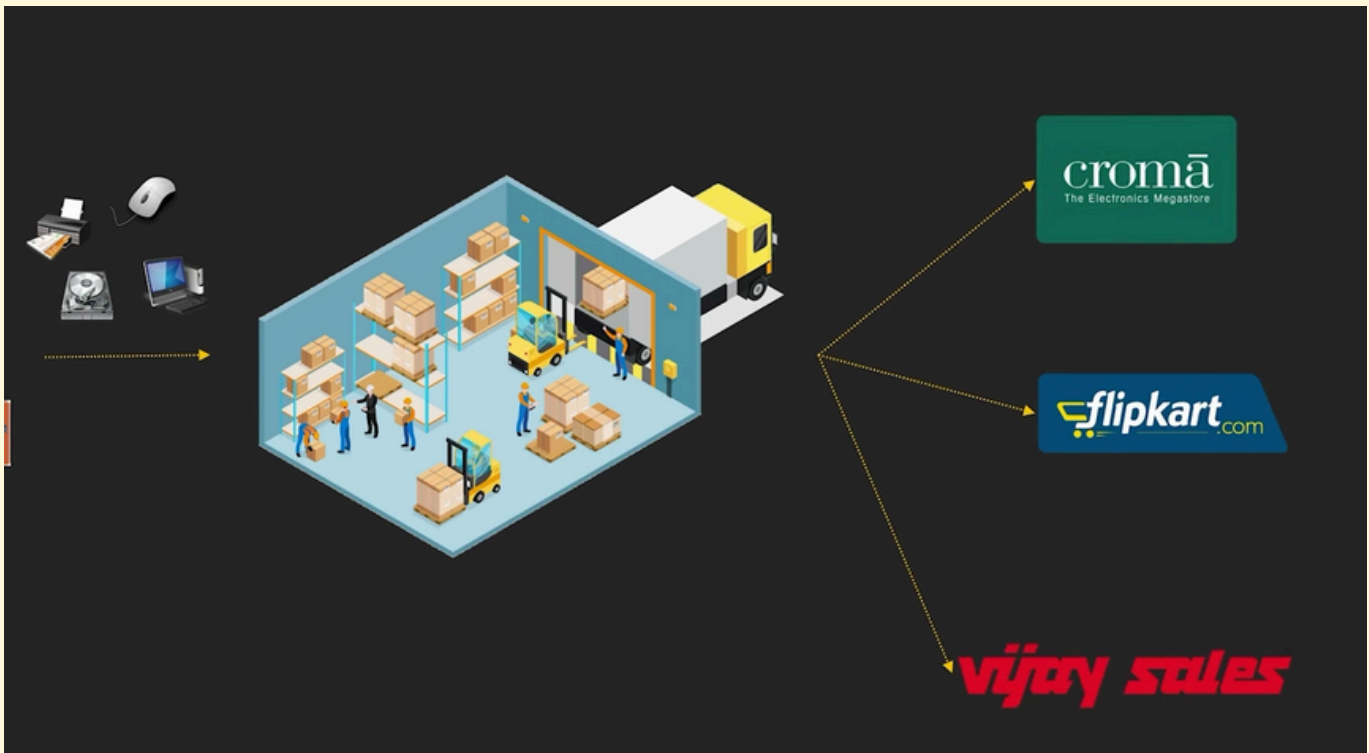
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# ATLIQ HARDWARE AND BUSINESS MODEL

Atliq Hardware is a global leader in electronics manufacturing. We specialize in producing and distributing a wide range of high-quality hardware products. Our offerings include personal computers, printers, microphones, and various computer accessories, serving the needs of customers around the world.



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# PROBLEM STATEMENT & PROBLEM OVERVIEW

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## PROBLEM STATEMENT

Atliq Hardware is struggling with slow and complicated Excel files as their data keeps growing. To handle this issue, they created a team of data analysts to switch from Excel to MySQL. This move aims to improve efficiency and make better use of their data.

## PROBLEM OVERVIEW

The goal of this project is to explore the company's data using MySQL. The team will study sales, customer behavior, market patterns, and supply chain activities to discover useful insights that can help improve business decisions.

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# CROMA SALES REPORT

Generate a report detailing the individual product sales for **Croma** India customer throughout the **fiscal year 2021**.

date	product_code	product	variant	sold_quantity	gross_price	gross_price_total
2020-09-01	A0118150101	AQ Dracula HDD – 3.5 Inch SATA 6 Gb/s 5400 R...	Standard	202	19.0573	3849.57
2020-09-01	A0118150102	AQ Dracula HDD – 3.5 Inch SATA 6 Gb/s 5400 R...	Plus	162	21.4565	3475.95
2020-09-01	A0118150103	AQ Dracula HDD – 3.5 Inch SATA 6 Gb/s 5400 R...	Premium	193	21.7795	4203.44
2020-09-01	A0118150104	AQ Dracula HDD – 3.5 Inch SATA 6 Gb/s 5400 R...	Premium Plus	146	22.9729	3354.04
2020-09-01	A0219150201	AQ WereWolf NAS Internal Hard Drive HDD – 8....	Standard	149	23.6987	3531.11
2020-09-01	A0219150202	AQ WereWolf NAS Internal Hard Drive HDD – 8....	Plus	107	24.7312	2646.24
2020-09-01	A0220150203	AQ WereWolf NAS Internal Hard Drive HDD – 8....	Premium	123	23.6154	2904.69
2020-09-01	A0320150301	AQ Zion Saga	Standard	146	23.7223	3463.46
2020-09-01	A0321150302	AQ Zion Saga	Plus	236	27.1027	6396.24
2020-09-01	A0321150303	AQ Zion Saga	Premium	137	28.0059	3836.81
2020-09-01	A0418150103	AQ Mforce Gen X	Standard 3	23	19.5235	449.04
2020-09-01	A0418150104	AQ Mforce Gen X	Plus 1	82	19.9239	1633.76
2020-09-01	A0418150105	AO Mforce Gen X	Plus 2	86	20.0766	1726.59

```

3  ●  SELECT
4      s.date, s.product_code,
5      p.product, p.variant, s.sold_quantity,g.gross_price,
6      round(g.gross_price *  s.sold_quantity,2) as gross_price_total
7  FROM fact_sales_monthly s
8  join dim_product p
9  on p.product_code = s.product_code
10 join fact_gross_price g
11 on g.product_code = s.product_code and
12 g.fiscal_year=get_fiscal_year(s.date)
13 where customer_code = "90002002" and
14 get_fiscal_year(date)=2021
15 order by date asc;

```

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# CROMA YEARLY GROSS SALES REPORT

Generate a yearly report for **Croma** India where there are two columns.

1. Fiscal Year ,2. **Total Gross Sales** amount in the year from **Croma**.

	fiscal_year	total_gross_sales
▶	2018	1324097.48
	2019	3555079.19
	2020	6502182.12
	2021	23216512.73
	2022	44638199.11

```
5 ● SELECT
6     get_fiscal_year(s.date) AS fiscal_year,
7     SUM(round(g.gross_price * s.sold_quantity,2)) AS total_gross_sales
8 FROM fact_sales_monthly s
9 JOIN fact_gross_price g
10    ON g.product_code = s.product_code
11    AND g.fiscal_year = get_fiscal_year(s.date)
12 WHERE customer_code = 90002002
13 GROUP BY get_fiscal_year(s.date)
14 ORDER BY fiscal_year;
```

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## TOP 5 MARKETS

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Generate a report getting **Top 5** markets by **Net Sales** in Fiscal Year **2021**.

```
4 ● SELECT
5     market,
6     round(sum(net_sales)/1000000,2)as net_sales_mln
7     from gdb0041.net_sales
8     where fiscal_year = 2021
9     group by market
10    order by net_sales_mln desc
11    limit 5;
```

	market	net_sales_mln
▶	India	210.67
	USA	132.05
	South Korea	64.01
	Canada	45.89
	United Kingdom	44.73

## TOP 5 CUSTOMERS

---

Generate a report getting **Top 5** customers by **Net Sales** in Fiscal Year **2021**.

```
4 ● SELECT
5     c.customer,
6     round(sum(net_sales)/1000000,2)as net_sales_mln
7 from gdb0041.net_sales n
8 join dim_customer c
9 on c.customer_code = n.customer_code
10 where fiscal_year = 2021
11 group by c.customer
12 order by net_sales_mln desc
13 limit 5;
```

customer	net_sales_mln
Amazon	109.03
Atliq Exclusive	79.92
Atliq e Store	70.31
Sage	27.07
Flipkart	25.25



## TOP 5 PRODUCTS

Generate a report getting **Top 5** products by **Net Sales** in Fiscal Year **2021**.

```
3 ● SELECT
4     p.product,
5     round(sum(net_sales)/1000000,2)as net_sales_mln
6 from gdb0041.net_sales n
7 join dim_product p
8 on p.product_code = n.product_code
9 where fiscal_year = 2021
10 group by p.product
11 order by net_sales_mln desc
12 limit 5;
```

product	net_sales_mln
AQ BZ Allin 1	33.75
AQ Qwerty	27.84
AQ Trigger	26.95
AQ Gen Y	23.58
AQ Maxima	22.32

# NET SALES % REPORT

Write a query to show each customer's net sales (in millions) for fiscal year 2021, along with their percentage contribution to total net sales. Use **CTE** and window functions.

```

4 with cte1 as (
5     select
6     customer,
7     round(sum(net_sales)/1000000,2) as net_sales_mln
8     from net_sales s
9     join dim_customer c
10    on s.customer_code = c.customer_code
11    where s.fiscal_year = 2021
12    group by customer)
13
14    select *,
15    net_sales_mln * 100/sum(net_sales_mln) over () as pct
16    from cte1
17    order by net_sales_mln desc
  
```

customer	net_sales_mln	pct
Amazon	109.03	13.233402
Atliq Exclusive	79.92	9.700206
Atliq e Store	70.31	8.533803
Sage	27.07	3.285593
Flipkart	25.25	3.064692
Leader	24.52	2.976089
Neptune	21.01	2.550067
Ebay	19.88	2.412914
Electricalsocity	16.25	1.972327
Synthetic	16.10	1.954121
Electricalslytical	15.64	1.898289
Acclaimed Sto...	14.32	1.738075
Propel	14.14	1.716228
Novus	12.01	1.566038

## REGION & CUSTOMER WHISE NET SALES % REPORT

Generate a Net Sales % report of Customers in differnet regions

```
4 with cte1 as (  
5     select c.customer,c.region,  
6         round(sum(net_sales)/1000000,2) as net_sales_mln  
7     from net_sales s  
8     join dim_customer c  
9     on s.customer_code = c.customer_code  
10    where s.fiscal_year = 2021  
11    group by c.customer,c.region)  
12  
13    select *, round(net_sales_mln*100/sum(net_sales_mln)  
14    over (partition by region),2) as pct_share_region  
15    from cte1  
16    order by region ,net_sales_mln desc
```

customer	region	net_sales_mln	pct_share_region
Amazon	APAC	57.41	12.99
Atliq Exclusive	APAC	51.58	11.67
Atliq e Store	APAC	36.97	8.36
Leader	APAC	24.52	5.55
Sage	APAC	22.85	5.17
Neptune	APAC	21.01	4.75
Electricalsocity	APAC	16.25	3.68
Propel	APAC	14.14	3.20
Synthetic	APAC	14.14	3.20
Flipkart	APAC	12.96	2.93
Novus	APAC	12.91	2.92
Expression	APAC	12.90	2.92
Girias	APAC	11.30	2.56

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# TOP PRODUCTS BY REGION

Get top n products in each division by their quantity sold;

```
3 • with cte1 as
4   (select
5     p.division,p.product,
6     sum(sold_quantity) as total_qty
7     from fact_sales_monthly s
8     join dim_product p
9     on p.product_code = s.product_code
10    where fiscal_year = 2021
11    group by p.product,p.division),
12  cte2 as (
13    select
14      *,
15      dense_rank() over(partition by division
16        order by total_qty desc) as drnk
17    from cte1)
18  select * from cte2 where drnk <=3
```

division	product	total_qty	drnk
N & S	AQ Pen Drive DRC	2034569	1
N & S	AQ Digit SSD	1240149	2
N & S	AQ Clx1	1238683	3
P & A	AQ Gamers Ms	2477098	1
P & A	AQ Maxima Ms	2461991	2
P & A	AQ Master wireless x1 Ms	2448784	3
PC	AQ Digit	135092	1
PC	AQ Gen Y	135031	2
PC	AQ Elite	134431	3

# TOP 3 MARKETS BY SOLD QTY

Find the top 3 markets by sold quantity for each product division in 2021 using CTE and window functions.

```
WITH cte1 AS (  
    SELECT  
        c.market,  
        c.region,  
        p.division,  
        SUM(s.sold_quantity) AS total_qty  
    FROM fact_sales_monthly s  
    JOIN dim_product p  
        ON p.product_code = s.product_code  
    JOIN dim_customer c  
        ON c.customer_code = s.customer_code  
    WHERE fiscal_year = 2021  
    GROUP BY c.market, c.region, p.division  
),  
cte2 AS (  
    SELECT *,  
        DENSE_RANK() OVER(PARTITION BY  
            division ORDER BY total_qty DESC) AS drnk  
    FROM cte1  
)  
SELECT *  
FROM cte2  
WHERE drnk <= 3;
```

market	region	division	total_qty	drnk
India	APAC	N & S	2893813	1
USA	NA	N & S	1695281	2
South Korea	APAC	N & S	849889	3
India	APAC	P & A	10456809	1
USA	NA	P & A	6021839	2
South Korea	APAC	P & A	2980642	3
India	APAC	PC	400807	1
USA	NA	PC	234704	2
South Korea	APAC	PC	117263	3

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# TOP 2 MARKETS BY GROSS SALES BY REGION

Find the top 2 markets by gross sales (in millions) per region for fiscal year 2021 using CTE and window functions.

```
3 WITH cte1 AS (  
4     SELECT  
5         c.market,  
6         c.region,  
7         ROUND(SUM(s.gross_price_total)/1000000, 2)  
8         AS gross_sales_mln  
9     FROM gross_sales s  
10    JOIN dim_customer c  
11      ON c.customer_code = s.customer_code  
12     WHERE fiscal_year = 2021  
13     GROUP BY c.region, c.market  
14 ),  
15 cte2 AS (  
16     SELECT *,  
17     DENSE_RANK() OVER(PARTITION BY  
18         region ORDER BY gross_sales_mln DESC) AS drnk  
19     FROM cte1  
20 )  
21 SELECT *  
22 FROM cte2  
23 WHERE drnk <= 2;
```

market	region	gross_sales_mln	drnk
India	APAC	455.05	1
South Korea	APAC	131.86	2
United Kingdom	EU	78.11	1
France	EU	67.62	2
Mexico	LATAM	2.30	1
Brazil	LATAM	2.14	2
USA	NA	264.46	1
Canada	NA	89.78	2

## CONCLUSION

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- Atliq Hardware had its highest-ever sales in 2022.
- In 2021, India was the top country by sales, reaching 210.67 million.
- Amazon was the leading platform in 2021 with sales of 109.03 million.
- The best-selling product in 2021 was the AQBZ All-in-One, with 33.75 million in sales.
- Amazon dominated the market in the APAX, LATAM, and North America regions.
- In the European Union, Atliq's own e-stores were the top performers.
- Identified top 5 products contributing highest net sales in 2021.
- Found customers with decreased forecast accuracy from 2020 to 2021.

# THANK YOU

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