

# Final document

# #Sl.	12
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🔄 Phase	Documentation
⚙️ Status	In progress

## ▼ Objective

AtliQ Hardware, a growing electronics company, faced a major loss in Latin America.

The problem?

They were still using Excel for data analysis, which couldn't keep up with their expanding operations. Without clear insights, they made poor decisions. They need real-time data analysis across their financial status. This data analysis project will allow them to make smarter, data-driven decisions, transforming their challenges into new opportunities for growth.

The management wants to know overall PL statement from 2019 to 2022.

I need to get

- Total Gross Sales
- Total Net Sales
- Total COGS
- Gross Margin
- Gross Margin %
- Operational Expenses
- Net Profit
- Net Profit %
- Top 5 products, customer by Net Sales
- Net Sales performance over time

## ▼ Dataset

I got two databases. gdb041 has dim\_customer, dim\_market, dim\_product, fact\_forecast\_monthly, fact\_sales\_monthly. And, gdb056 has freight\_cost, gross\_price, manufacturing\_cost, post\_invoice\_decution, pre\_inovice\_deduction.

At first I started to explore fact\_sales\_monthly from gdb041.

#### ▼ Fact\_Sales\_monthly

I started in SQL.

##### ▼ How many rows?

```
/*  
How many rows fact_sales_mo  
nthly have?  
*/  
SELECT count(*) FROM gdb04  
1.fact_sales_monthly
```

- 1425706

##### ▼ How many columns?

```
/*  
Check sample data  
*/  
SELECT * FROM gdb041.fact_s  
ales_monthly LIMIT 1000
```

11 columns total. 'date', 'division', 'category', 'product\_code', 'product', 'market', 'platform', 'channel', 'customer\_code', 'customer\_name', 'sold\_quantity'

##### ▼ What does one rows mean? What is the grain?

```
/*  
The following query will help to  
understand to find the grain.  
What each row in this dataset a  
ctually represents.  
I am assuming that date+produ  
ct_code+customer_code is the  
grain.  
If the query return no rows. The  
assumption is validated.
```

Each row represents: A specific customer buys a specific product in a specific date (month).

```
*/  
SELECT  
    count(*) as row_count,  
    `date`,  
    product_code,  
    customer_code  
FROM  
    gdb041.fact_sales_monthly  
GROUP BY  
    `date`,  
    product_code,  
    customer_code  
HAVING  
    ROW_COUNT>1  
  
-- No rows return --  
-- The grain date+product_cod  
e+customer_code
```

## ▼ Context

Fact\_sales\_monthly