# SQL PROJECT

## FINANCE AND SUPPLY CHAIN ANALYTICS ON ATLIQ HARDWARE

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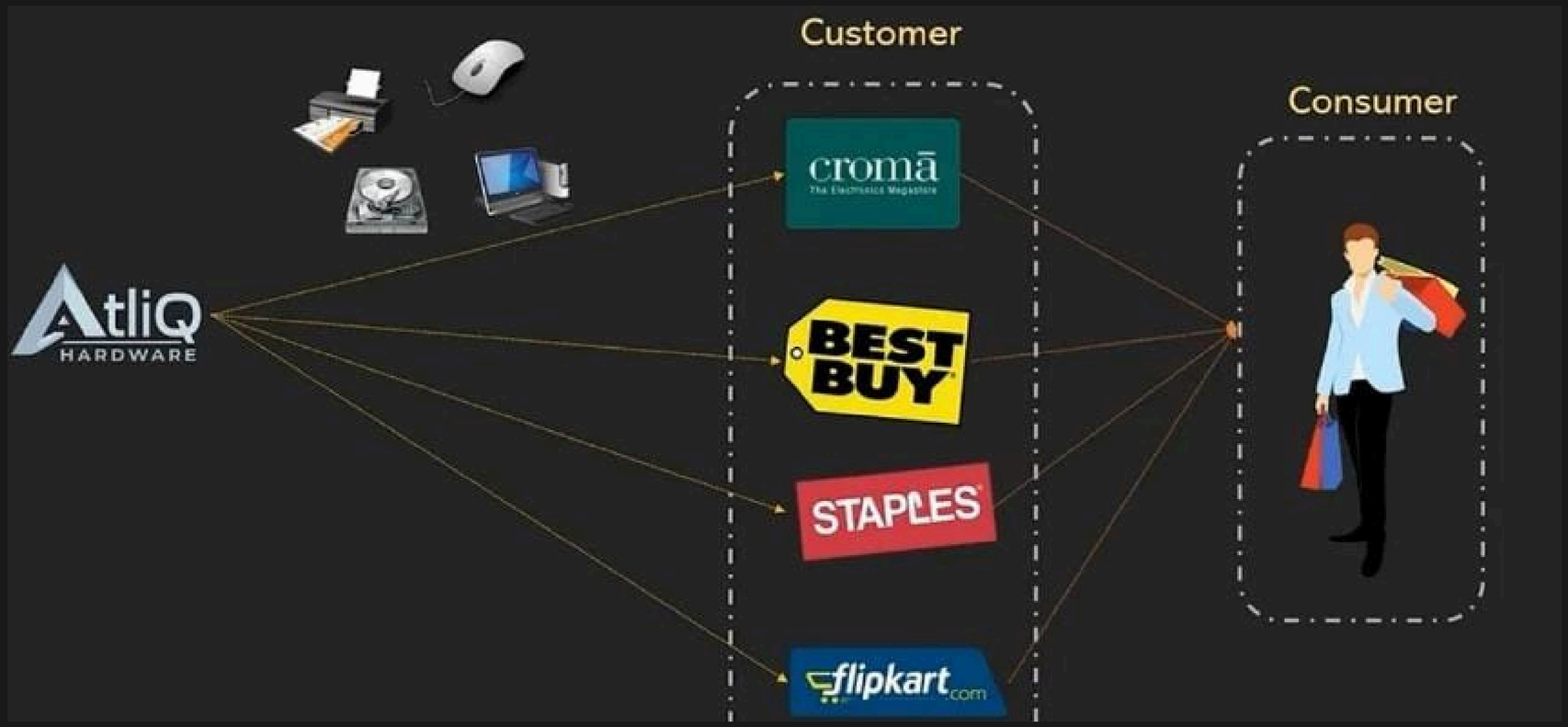
# ABOUT ATLIQ HARDWARE AND BUSINESS MODEL




AtliQ Hardware stands as a premier global authority in electronics manufacturing, renowned for its exceptional quality and innovation. We excel in producing and distributing a wide array of superior hardware products, catering to the varied demands of our global customer base. Our extensive product lineup includes personal computers, printers, mice, and an assortment of computer peripherals, ensuring comprehensive solutions for all computing needs. AtliQ Hardware is dedicated to delivering excellence, reliability, and cutting-edge technology to our valued customers around the world.

# PROBLEM STATEMENT

AtliQ Hardware is experiencing performance issues stemming from the growing size and complexity of its Excel files. In response, the company has established a specialized team of data analysts tasked with harnessing the power of MySQL. This initiative aims to uncover valuable insights and boost operational efficiency, ensuring AtliQ Hardware continues to thrive in its data-driven decision-making processes.

# PROJECT OVERVIEW

This project involves an in-depth analysis of AtliQ Hardware's dataset to uncover actionable insights. The main goals are to assess sales performance, understand market dynamics, analyze customer behavior, and forecast supply chain trends. These insights will help AtliQ Hardware make informed decisions to drive growth and improve efficiency.

# TASK 1

## Croma India product wise sales report for fiscal year 2021

Attach | Add a child issue | Link issue | ...

Description

Normal text

**As a** product owner, **I want to** generate a report of individual product sales (aggregated on a monthly basis at the product code level) for Croma India customer for FY=2021 **so that** I can track individual product sales and run further product analytics on it in excel.

The report should have the following fields,

1. Month
2. Product Name
3. Variant
4. Sold Quantity
5. Gross Price Per Item
6. Gross Price Total

# SOLUTION

```sql
-- a. Perform joins to pull product information
    SELECT s.date, s.product_code, p.product, p.variant, s.sold_quantity
    FROM fact_sales_monthly s
    JOIN dim_product p
        ON s.product_code=p.product_code
    WHERE
            customer_code=90002002 AND
            get_fiscal_year(date)=2021
    LIMIT 1000000;
-- b. Performing join with 'fact_gross_price' table with the above query and generating required fields
    SELECT
            s.date,
            s.product_code,
            p.product,
            p.variant,
            s.sold_quantity,
            g.gross_price,
            ROUND(s.sold_quantity*g.gross_price,2) as gross_price_total
    FROM fact_sales_monthly s
    JOIN dim_product p
            ON s.product_code=p.product_code
    JOIN fact_gross_price g
            ON g.fiscal_year=get_fiscal_year(s.date)
        AND g.product_code=s.product_code
    WHERE
            customer_code=90002002 AND
            get_fiscal_year(s.date)=2021
    LIMIT 1000000;
```

| 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 |

# TASK 2

AFA-1 / AFA-6

## Gross monthly total sales report for Croma

Attach | Add a child issue | Link issue | ...

Description

**As a** product owner, **I need** an aggregate monthly gross sales report for Croma India customer **so that** I can track how much sales this particular customer is generating for AtliQ and manage our relationships accordingly.

The report should have the following fields,

1. Month
2. Total gross sales to Amazon India in this month

# SOLUTION

```sql
SELECT
        s.date,
        SUM(ROUND(s.sold_quantity*g.gross_price,2)) as monthly_sales
    FROM fact_sales_monthly s
    JOIN fact_gross_price g
        ON g.fiscal_year=get_fiscal_year(s.date) AND g.product_code=s.product_code
    WHERE
        customer_code=90002002
    GROUP BY date;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| date | monthly_sales |
|---|---|
| 2017-09-01 | 122407.57 |
| 2017-10-01 | 162687.56 |
| 2017-12-01 | 245673.84 |
| 2018-01-01 | 127574.73 |
| 2018-02-01 | 144799.54 |
| 2018-04-01 | 130643.92 |
| 2018-05-01 | 139165.06 |
| 2018-06-01 | 125735.36 |
| 2018-08-01 | 125409.90 |
| 2018-09-01 | 343337.14 |
| 2018-10-01 | 440562.10 |
| 2018-12-01 | 653944.72 |
| 2019-01-01 | 359025.06 |
| 2019-02-01 | 356607.19 |
| 2019-04-01 | 379549.74 |
| 2019-05-01 | 340152.29 |
| 2019-06-01 | 343792.08 |

Result 2 | Read Only

# TASK 3

Add epic / AFA-18

## Stored proc for market badge

Attach | Add a child issue | Link issue

**Description**

Create a stored proc that can determine the market badge based on the following logic,

If **total sold quantity > 5 million** that market is considered **Gold** else it is **Silver**

My input will be,

- market
- fiscal year

Output

- market badge

# SOLUTION

Name: get_market_badge

The name of the routine is parsed automatically from the DDL statement. The DDL is parsed automatically while you type.

DDL:

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `get_market_badge`(
            IN in_market VARCHAR(45),
            IN in_fiscal_year YEAR,
            OUT out_level VARCHAR(45)
    )
BEGIN
            DECLARE qty INT DEFAULT 0;
            # Default market is India
            IF in_market = "" THEN
                SET in_market="India";
            END IF;
            # Retrieve total sold quantity for a given market in a given year
            SELECT
                SUM(s.sold_quantity) INTO qty
            FROM fact_sales_monthly s
            JOIN dim_customer c
            ON s.customer_code=c.customer_code
            WHERE
                get_fiscal_year(s.date)=in_fiscal_year AND
                c.market=in_market;
            # Determine Gold vs Silver status
            IF qty > 5000000 THEN
                SET out_level = 'Gold';
            ELSE
                SET out_level = 'Silver';
            END IF;
    END
```

```
1 • set @out_level = '0';
2 • call gdb0041.get_market_badge('India', 2021, @out_level);
3 • select @out_level;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| @out_level |
| --- |
| Gold |

Result Grid

# TASK 4

2. Report for **top products**,

| Rank | Product | Net Sales |
|---|---|---|
| 1 | AQ BZ Allin1 | 33.75 |
| 2 | AQ Qwerty | 27.84 |

# SOLUTION

Name: get_top_n_products_by_net_sales

The name of the routine is parsed automatically from the DDL statement. The DDL is parsed automatically while you type.

DDL:

```
CREATE DEFINER=`root`@`localhost` PROCEDURE `get_top_n_products_by_net_sales`(
    in_fiscal_year INT,
    in_top_n INT
)
BEGIN
    SELECT
        product,
        ROUND(total_net_sales / 1000000, 2) AS net_sales_mln
    FROM (
        SELECT
            product,
            SUM(net_sales) AS total_net_sales
        FROM gdb0041.net_sales
        WHERE fiscal_year = in_fiscal_year
        GROUP BY product
    ) AS sales_summary
    ORDER BY total_net_sales DESC
    LIMIT in_top_n;
END
```

```
call gdb0041.get_top_n_products_by_net_sales(2021, 5);
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

| product | net_sales_mln |
|---|---|
| AQ BZ Allin1 | 33.75 |
| AQ Qwerty | 27.84 |
| AQ Trigger | 26.95 |
| AQ Gen Y | 23.58 |
| AQ Maxima | 22.32 |

# TASK 5

3. Report for **top customers**

| Rank | Customer | Net Sales |
|---|---|---|
| 1 | Amazon | 109.03 |
| 2 | AtliQ Exclusive | 79.92 |

# SOLUTION

Name: top_n_customer_by_net_sales

The name of the routine is parsed automatically from the statement. The DDL is parsed automatically while you t

DDL:

```
1  CREATE DEFINER=`root`@`localhost` PROCEDURE `top_n_customer_by_net_sales`(
2      IN in_fiscal_year INT,
3      IN in_top_n INT
4      )
5  BEGIN
6  SELECT
7      c.customer, ROUND(SUM(net_sales) / 1000000, 2) AS net_sales_mln
8  FROM
9      net_sales s
10     JOIN dim_customer c
11     ON s.customer_code=c.customer_code
12 WHERE
13     fiscal_year = in_fiscal_year
14 GROUP BY customer
15 ORDER BY net_sales_mln DESC
16 LIMIT in_top_n;
17 END
```

```
1  call gdb0041.top_n_markets_by_net_sales(2021, 5);
2
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

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

# KEY HIGHLIGHTS

- AtliQ Hardware achieved notable sales figures in 2022.
- India led the market in 2021 with $210.67 million in sales.
- Amazon was the top sales channel in 2021 with $109.03 million in net sales.40

These insights highlight the strong market presence and successful product performance of AtliQ Hardware, guiding strategic decisions for future growth.

# THANK YOU