E-commerce Analysis

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1 Introduction

This project consists of analyzing the performance of an E-commerce specialized in various areas, and determining whether they are profitable or not and if they are at their full business potential.

2 Data Gathering

The data taken for this project is from a free dataset on Kaggle, which includes two files:

- **Orders.csv**

- **product-Supplier.xlsx**

- Link: `https://www.kaggle.com/datasets/gabrielsantello/wholesale-and-retail-orders-data` `data?select=orders.csv&fbclid=IwAR31XLaLEOdQZfhPqeTBF2w_fql6Yo-mmSXqS4FmJs4gDQ9eJQyJJ`

3 ETL

ETL Tasks:

- **tUnique rows:** Remove duplicates to ensure unique rows.

- **tMAP:** Map the order list and the supplier-customer to different sources.

- **tLogrow:** Perform testing.

- **TAggregate:** Sort, calculate sum and average of profit, sales depending on other variables.

- **Extract data into 5 output files.**

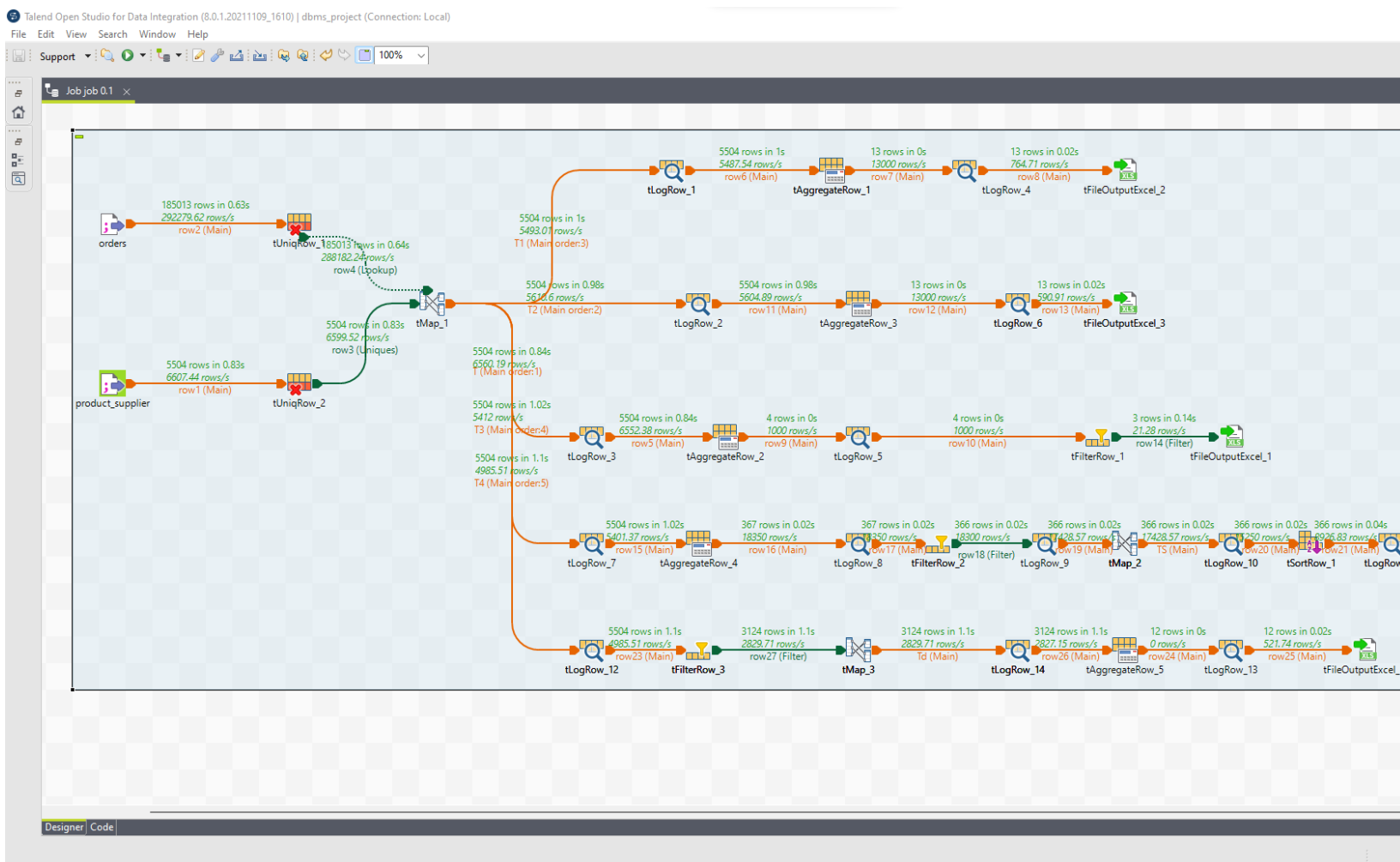After performing these ETL tasks, the data will be ready for further analysis.

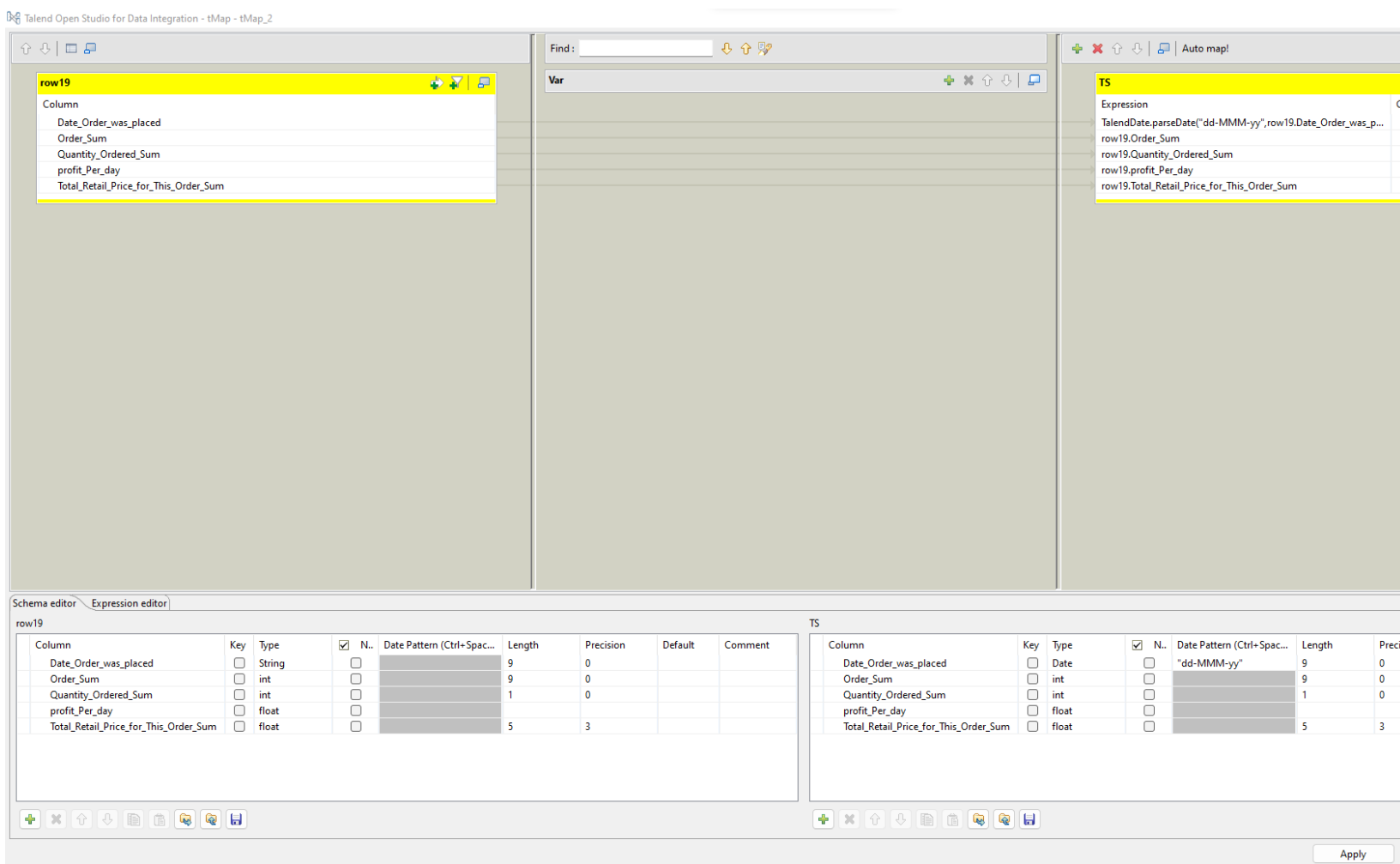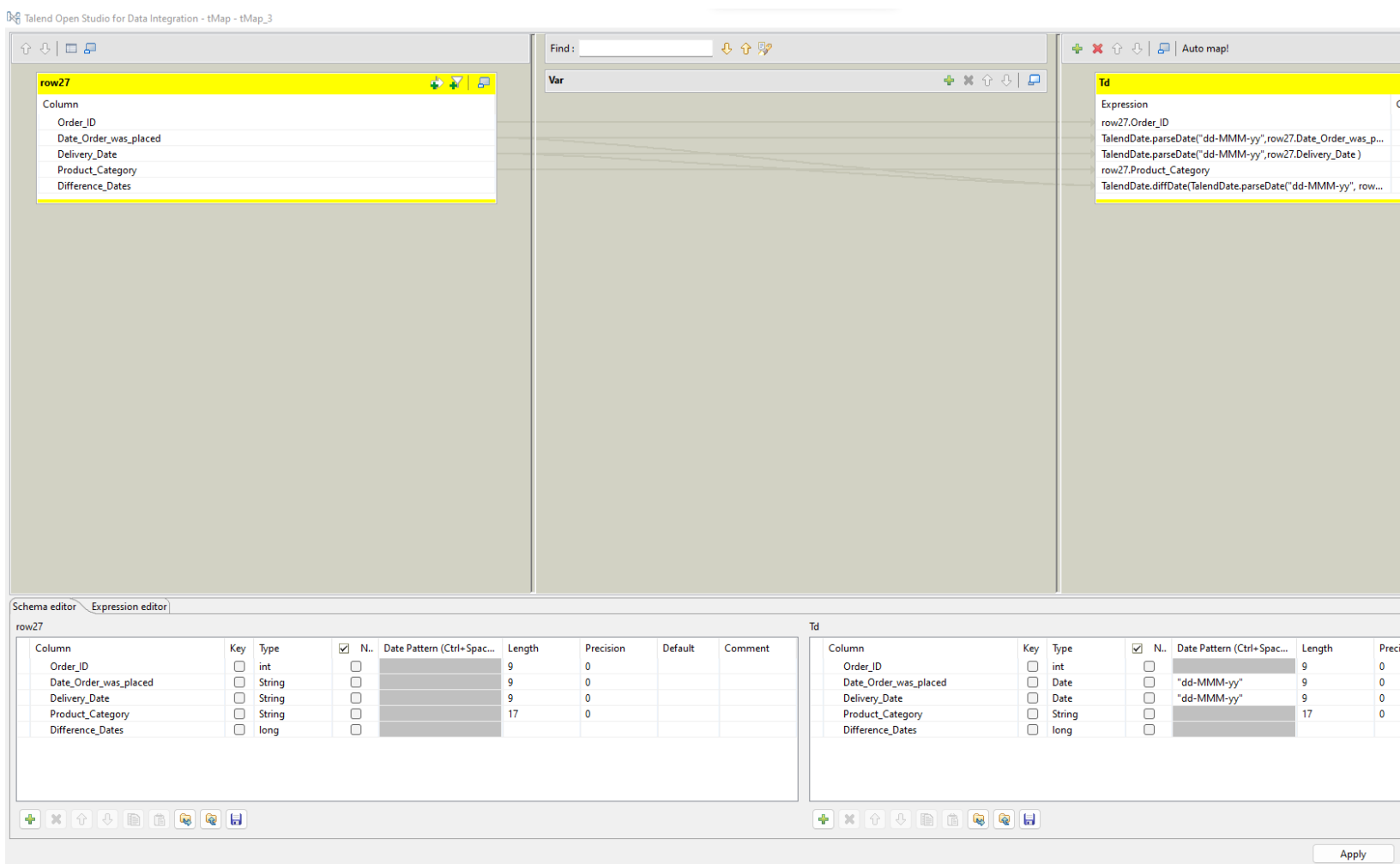Figure 1: Caption for your ETL image.

Find : Auto map!

row19

Column

Date_Order_was_placed
Order_Sum
Quantity_Ordered_Sum
profit_Per_day
Total_Retail_Price_for_This_Order_Sum

Var

TS

Expression

TalendDate.parseDate("dd-MMM-yy",row19.Date_Order_was_p...
row19.Order_Sum
row19.Quantity_Ordered_Sum
row19.profit_Per_day
row19.Total_Retail_Price_for_This_Order_Sum

Schema editor | Expression editor

row19

Column	Key	Type	N..	Date Pattern (Ctrl+Spac...	Length	Precision	Default	Comment
Date_Order_was_placed		String			9	0		
Order_Sum		int			9	0		
Quantity_Ordered_Sum		int			1	0		
profit_Per_day		float						
Total_Retail_Price_for_This_Order_Sum		float			5	3		

TS

Column	Key	Type	N..	Date Pattern (Ctrl+Spac...	Length	Preci
Date_Order_was_placed		Date		"dd-MMM-yy"	9	0
Order_Sum		int			9	0
Quantity_Ordered_Sum		int			1	0
profit_Per_day		float				
Total_Retail_Price_for_This_Order_Sum		float			5	3

Apply

Figure 2: Caption for your ETL image.

Figure 3: Caption for your ETL image.

4 Analysis

Sum of Total Retail Price for This Order by Month

Year, Quarter, Month, Day

∧ ☐ 2017
   ∧ ☐ Qtr 1
      ∨ ☐ January
      ∨ ☐ February
      ∨ ☐ March
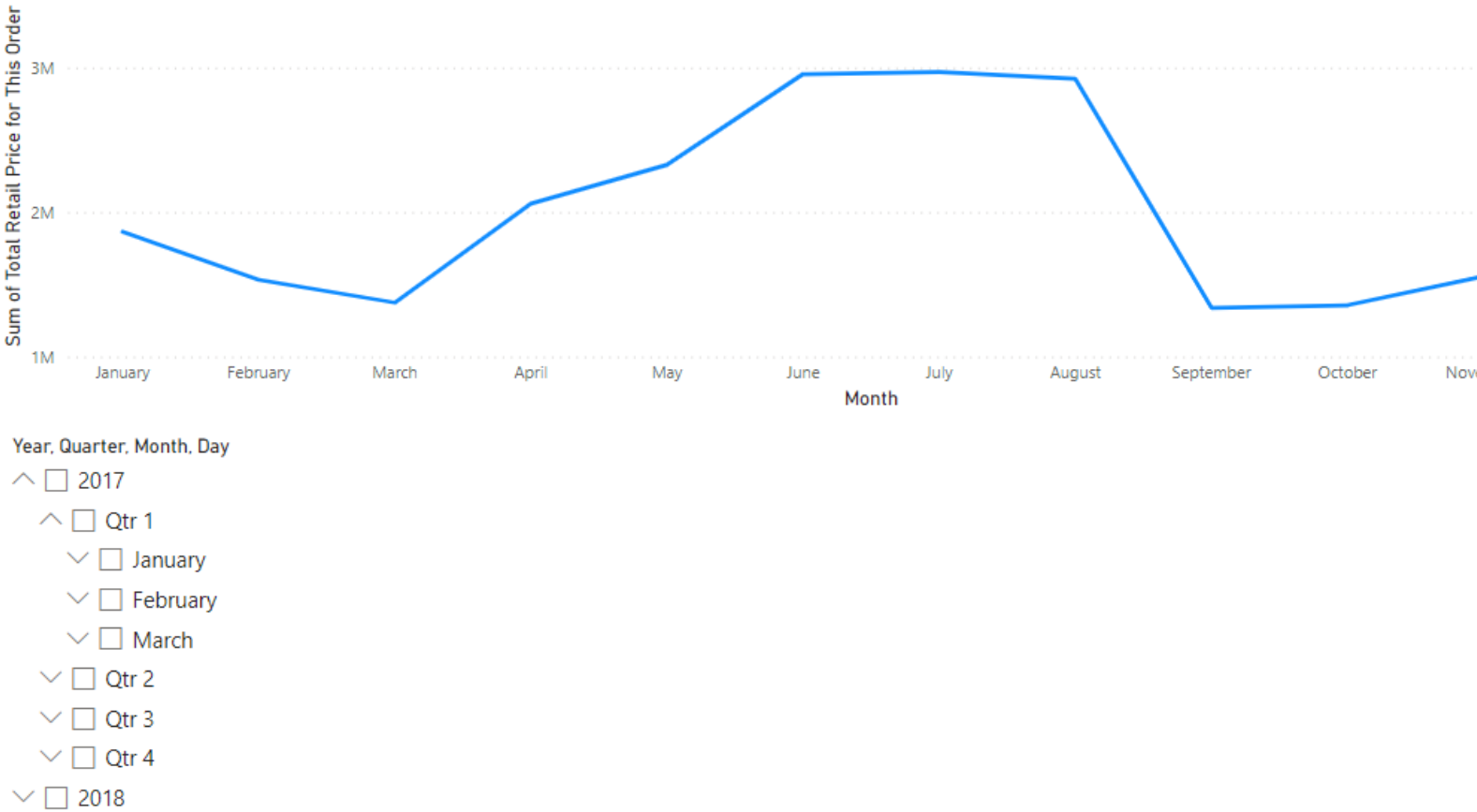   ∨ ☐ Qtr 2
   ∨ ☐ Qtr 3
   ∨ ☐ Qtr 4
∨ ☐ 2018

Figure 4: Caption for Analysis - s1.

Sum of Total Retail Price per Month for a Chosen Year: This graph displays the total retail price for each month over a selected year. It provides an overview of the monthly sales performance, helping to identify trends and patterns throughout the year.
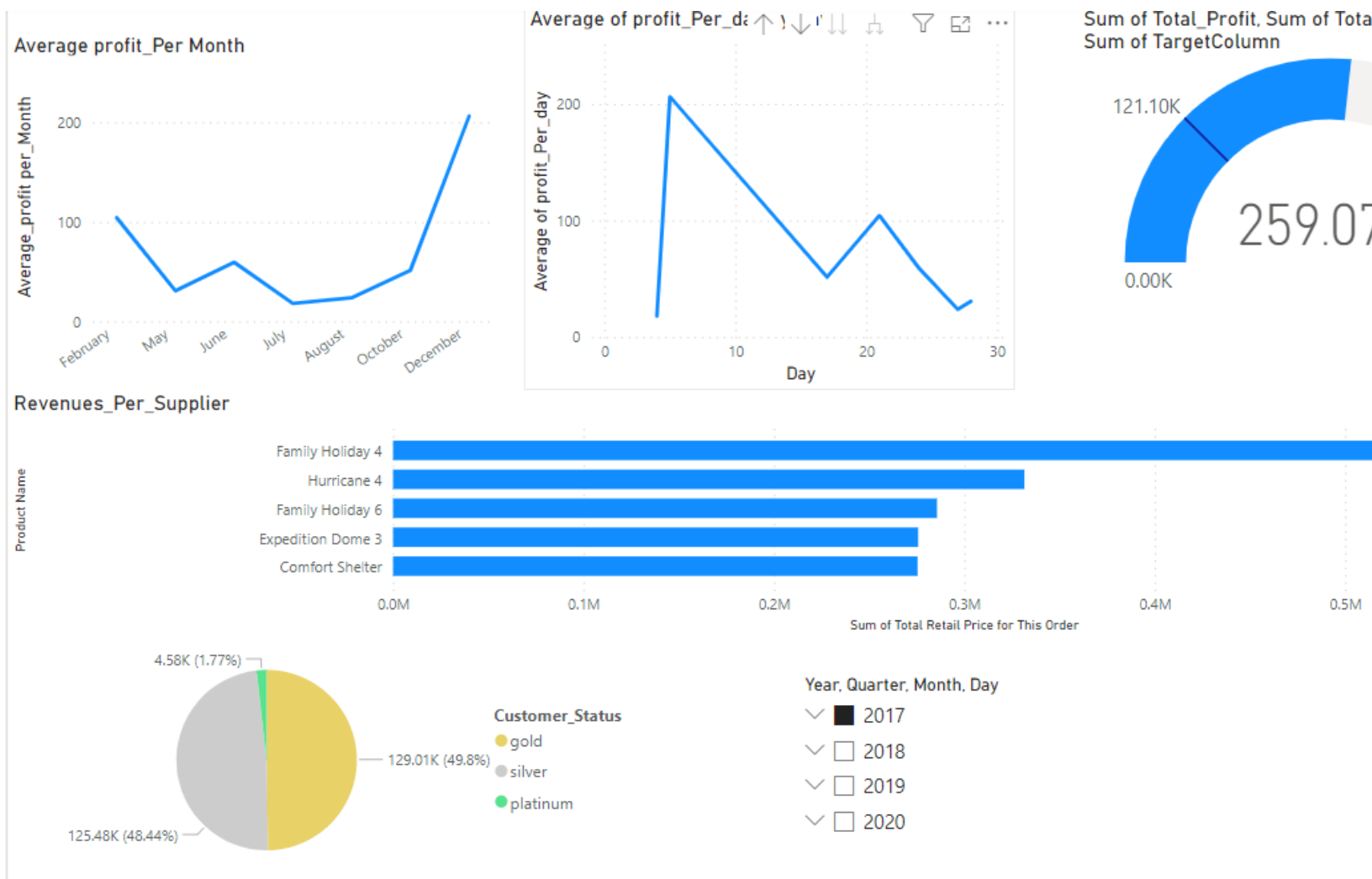
Figure 5: Caption for Analysis - s2.

Average Profit per Month: This graph illustrates the average profit generated each month. It allows for the assessment of the overall profitability trend over the specified time period, aiding in identifying months of high or low profitability.
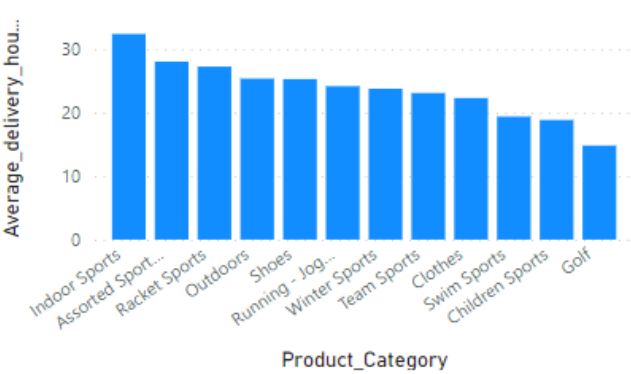
Average Profit per Day of the Month: This graph breaks down the average profit on a daily basis within a month. It provides insights into daily fluctuations in profitability, helping to identify specific days of the month that contribute significantly to overall profits.

Gauge Representing Total Profit Compared to Total Sales with a Target of 25%: The gauge visually represents the ratio of total profit to total sales, setting a target of 25

Revenue per Supplier: This graph displays the revenue contribution from each supplier. It helps in assessing the significance of different suppliers to the overall revenue, facilitating strategic decisions related to supplier relationships and sourcing.
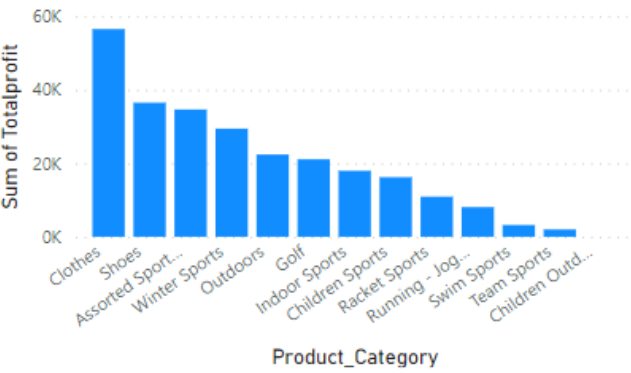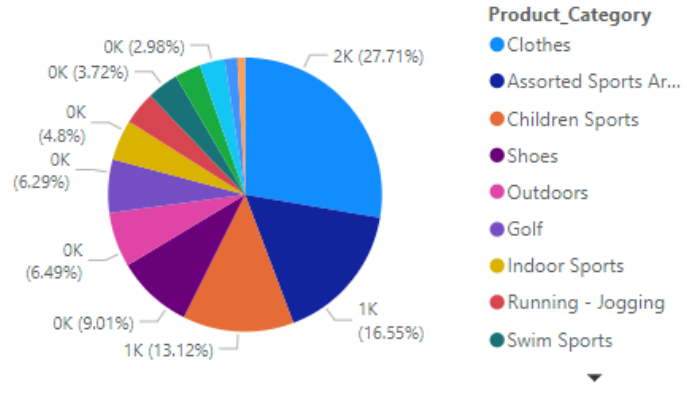
Figure 6: Caption for Analysis - s3.

Sum of Total Profit by Product Category: This graph provides a comprehensive view of the total profit generated in each product category. It aids in identifying which categories contribute most significantly to overall profit, allowing for strategic focus and decision-making.

Sum of Profit by Supplier Name: The graph illustrates the total profit generated from each supplier. It helps in assessing the financial impact of different suppliers on the business, guiding decisions related to supplier relationships and procurement strategies.

Number of Products per Category: This graph presents the total count of products within each product category. It provides insights into the distribution of products across categories, aiding in inventory management and product portfolio analysis.

Average Delivery Time in Hours by Category: This graph analyzes the average delivery time in hours for each product category. It allows for the evaluation of delivery efficiency across different categories, helping to identify areas for improvement or optimization in the supply chain.