

SALES PERFORMANCE ANALYSIS DASHBOARD USING POWER BI

BY TEAM 3 : PROFIT DETECTORS

TEAM:

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PROJECT OVERVIEW :

Purpose: To create an interactive Sales Performance Dashboard leveraging Power BI for actionable insights.

Key Features:

- Integration of datasets: customer demographics, sales transactions, product data, and customer ratings.
- Advanced analyses: customer lifetime value, churn prediction, product cannibalization, and customer sentiment.
- Data visualization: Charts, maps, and analytics for better decision-making.

Outcome: A dynamic tool for understanding sales trends, customer behavior, and product performance.

INTRODUCTION :

The Sales Performance Dashboard leverages Power BI to turn complex sales data into actionable insights, providing a comprehensive view of sales and customer trends. This tool is tailored to help decision-makers understand key sales drivers and customer behaviors.

Dataset Overview:

- The dataset integrates various data sources, including:
 - **Customer Demographics:** Information on customer regions, acquisition dates, and purchase frequency.
 - **Sales Transactions:** Detailed records of each sale, including order date, product sold, sale amount, and discount information.
 - **Product Information:** Data on product categories, pricing, release dates, and status (e.g., new vs. existing products).
 - **Customer Feedback:** Customer ratings and satisfaction metrics, allowing us to correlate sentiment with sales performance.



MODULE-1

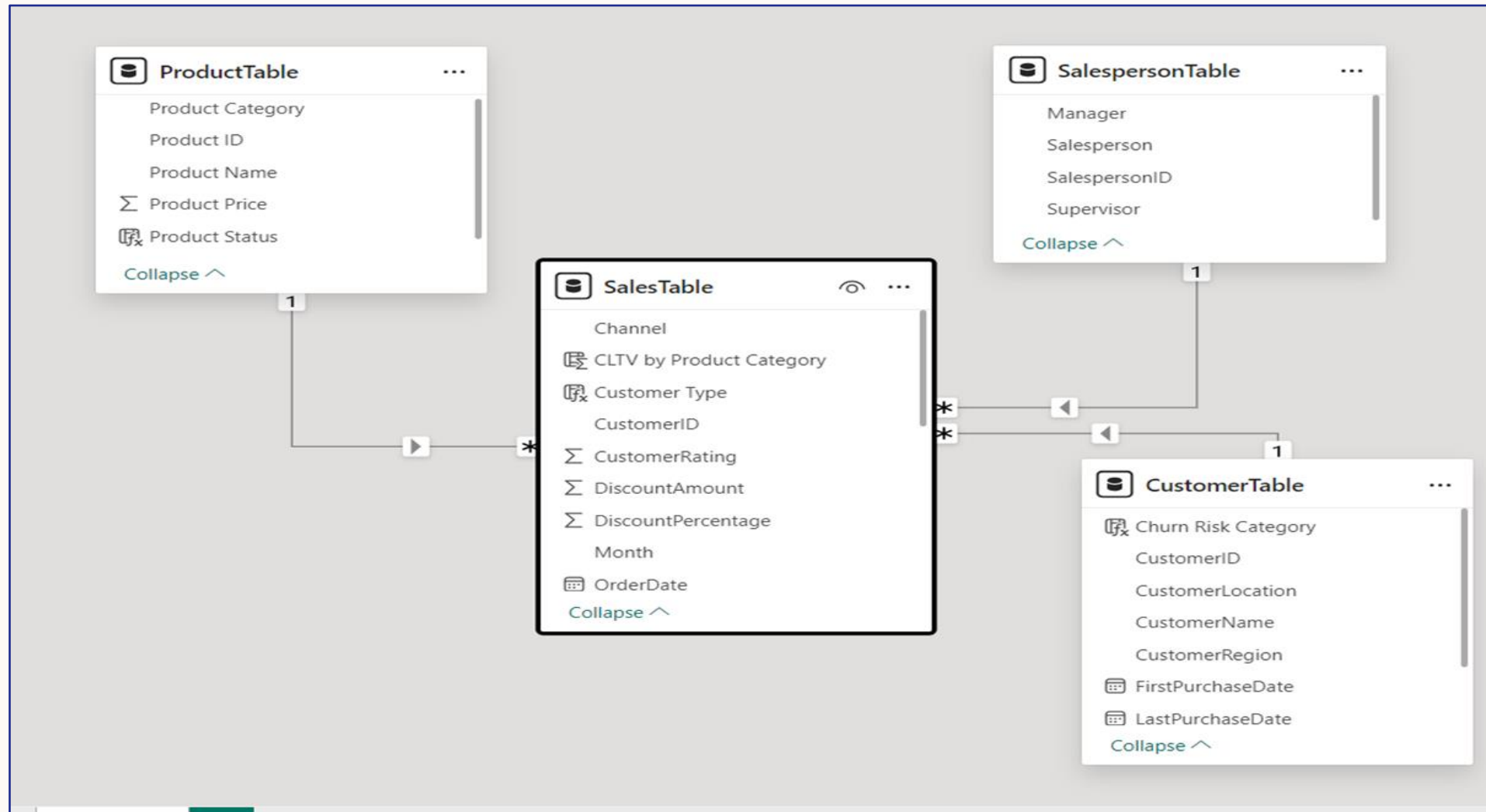
Data Transformation



TRANSFORMATIONS :

- Made changes in the data type
- Removed empty rows
- Added new columns

DATASET MODEL VIEW





MODULE-2

Dax Formulae

DAX FORMULAE :

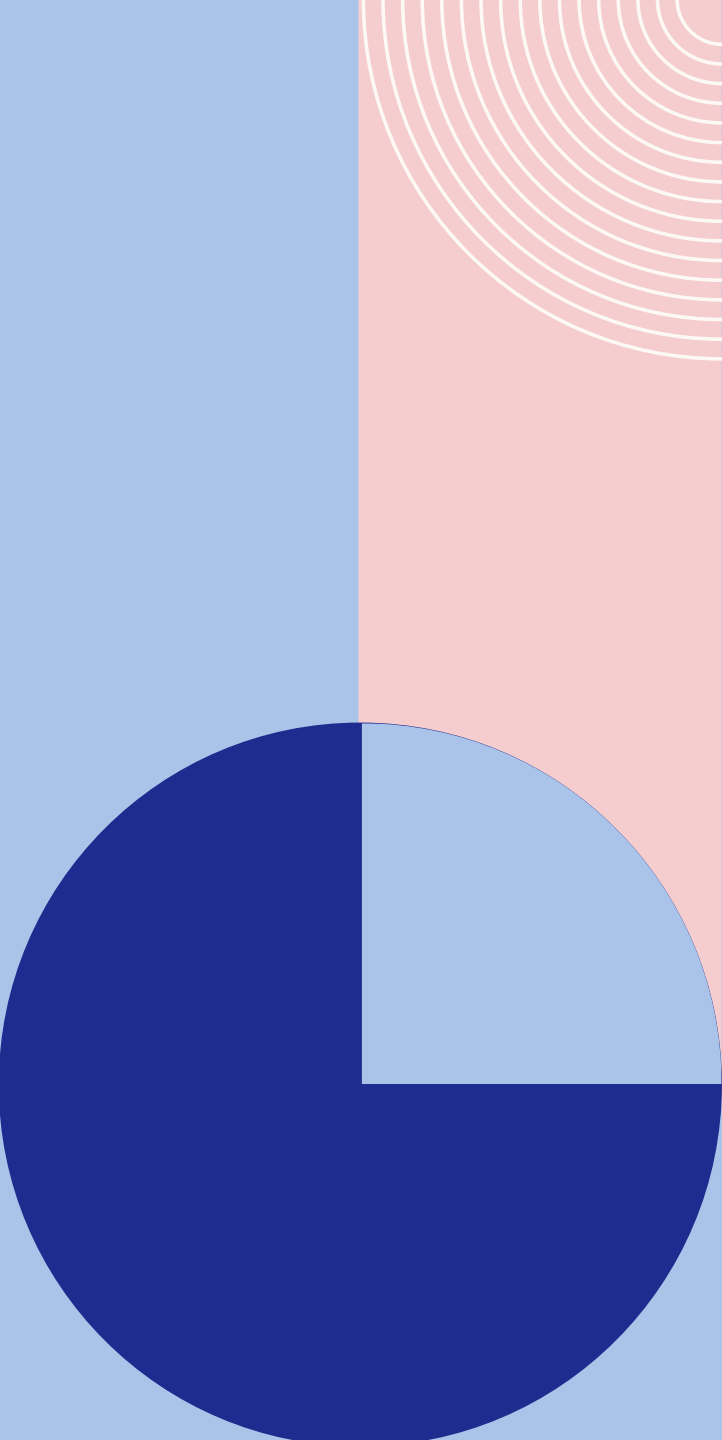
- Total Spend = `SUM(SalesTable[Total_Amount])`
- Recency = `DATEDIFF(MAX(CustomerTable[LastPurchaseDate]), TODAY(), DAY)`
- Customer Type = `IF([Total Spend] > 8000000, "Platinum", IF([Total Spend] > 4000000, "Gold", "Silver"))`
- Customer Count by Churn Category = `CALCULATE(DISTINCTCOUNT(CustomerTable[CustomerID]), FILTER(CustomerTable, CustomerTable[Churn Risk Category] = SELECTEDVALUE(CustomerTable[Churn Risk Category])))`

DAX FORMULAE :

- Churn Risk Category = SWITCH(
TRUE(),
[Recency] > 980, "Inactive",
[Recency] > 750 && CustomerTable[PurchaseFrequency] <= 28, "At Risk",
[Recency] <= 750 && CustomerTable[PurchaseFrequency] > 28, "Retained",
TRUE(), "Potential"
)
- Product Status = IF(DATEDIFF(ProductTable[ReleaseDate], TODAY(), YEAR) <= 2, "New", "Existing")
- Average Sale Price = AVERAGE(SalesTable[SalePrice])
- CLTV by Product Category = CALCULATE(
SUM(SalesTable[SaleAmount]),
ALLEXCEPT(ProductTable, ProductTable[Product Category])
)
- Total Sales = SUM(SalesTable[SaleAmount])

DAX FORMULAE :

- Rating Category = `IF(SalesTable[CustomerRating] == 5, "Excellent",
IF(SalesTable[CustomerRating] == 4, "Good",
IF(SalesTable[CustomerRating] == 3, "Average",
IF(SalesTable[CustomerRating] == 2, "Bad",
IF(SalesTable[CustomerRating] == 1, "Worst"))))`
- Customer Status = `VAR FirstPurchaseDate =
CALCULATE(
MIN(CustomerTable[FirstPurchaseDate]),
FILTER(
CustomerTable,
CustomerTable[CustomerID] = SalesTable[CustomerID]
)
)
RETURN
IF(
SalesTable[OrderDate] <= FirstPurchaseDate + 365,
"New",
"Repeat"
)`

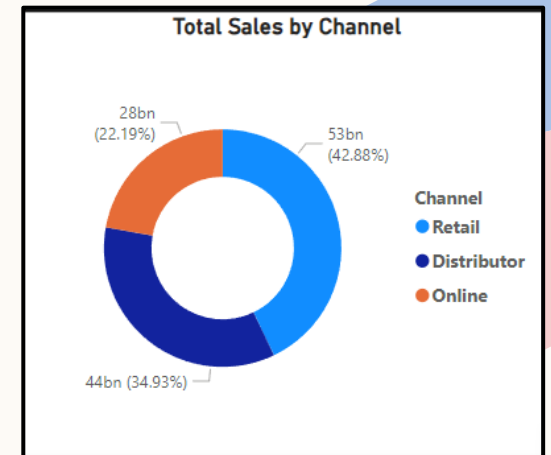
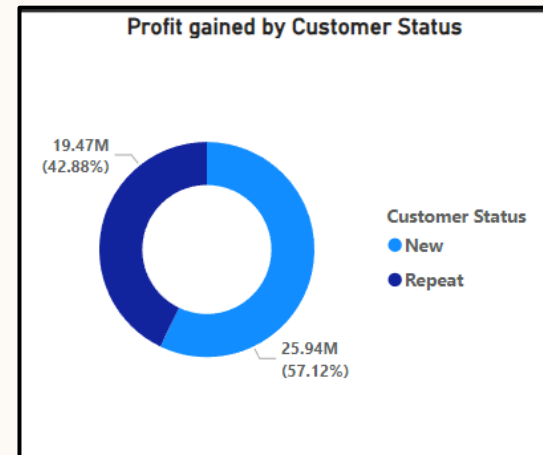
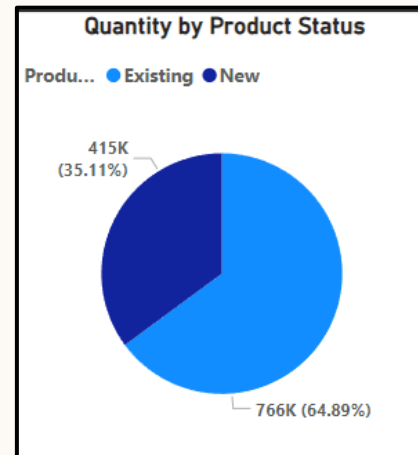
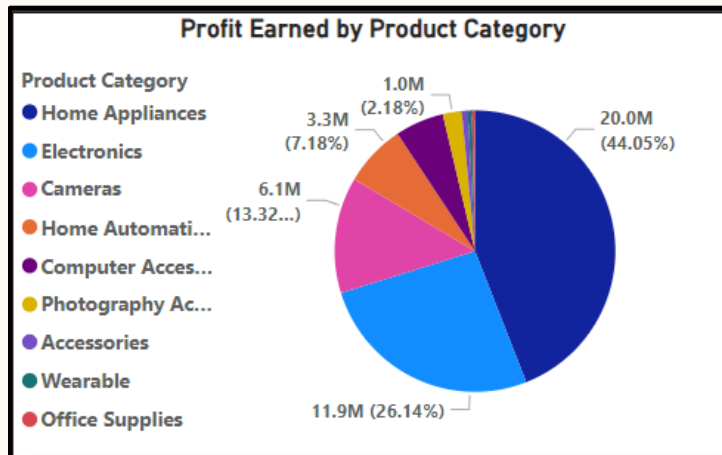
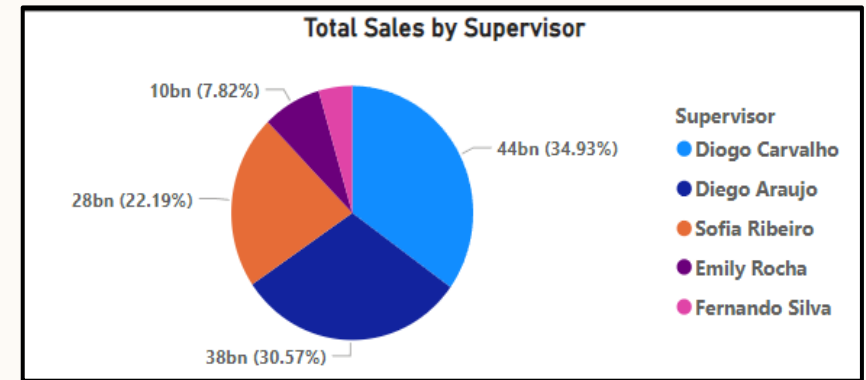
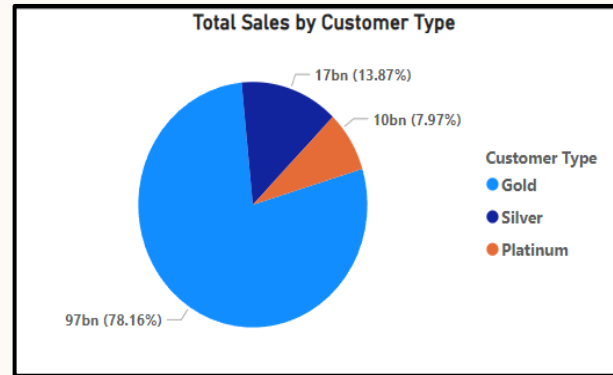
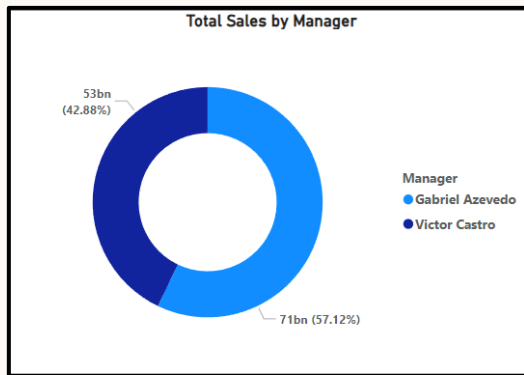


MODULE-3

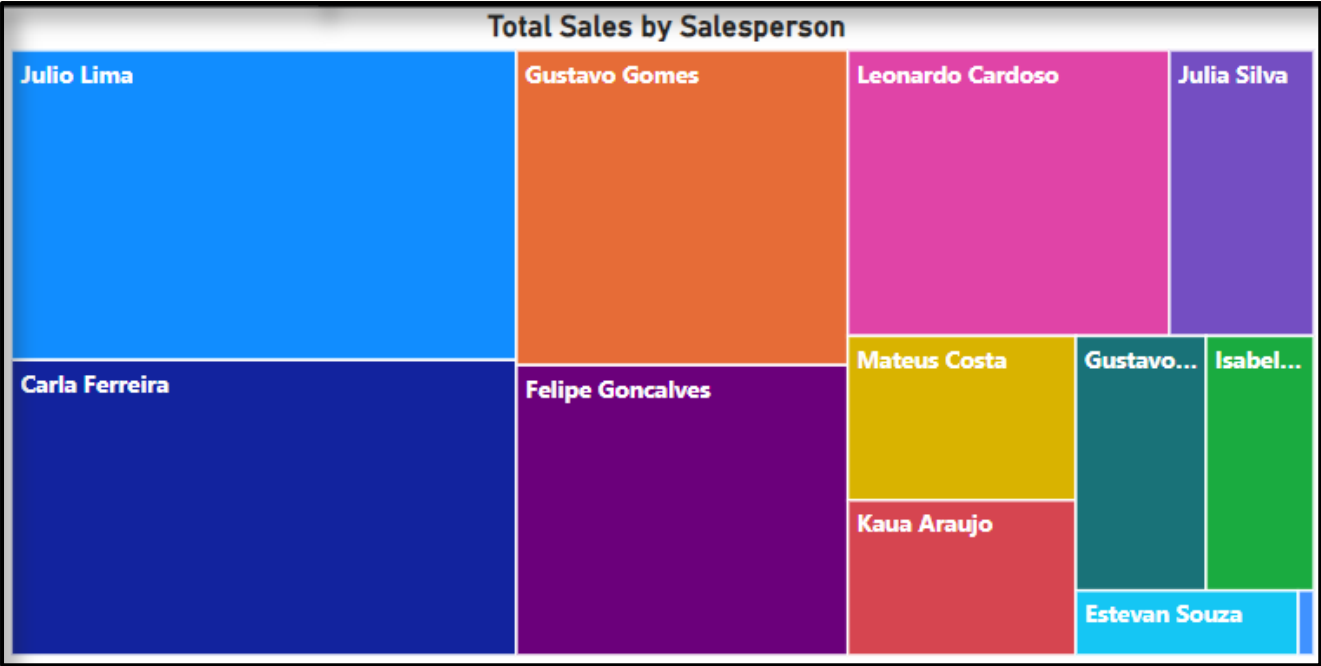
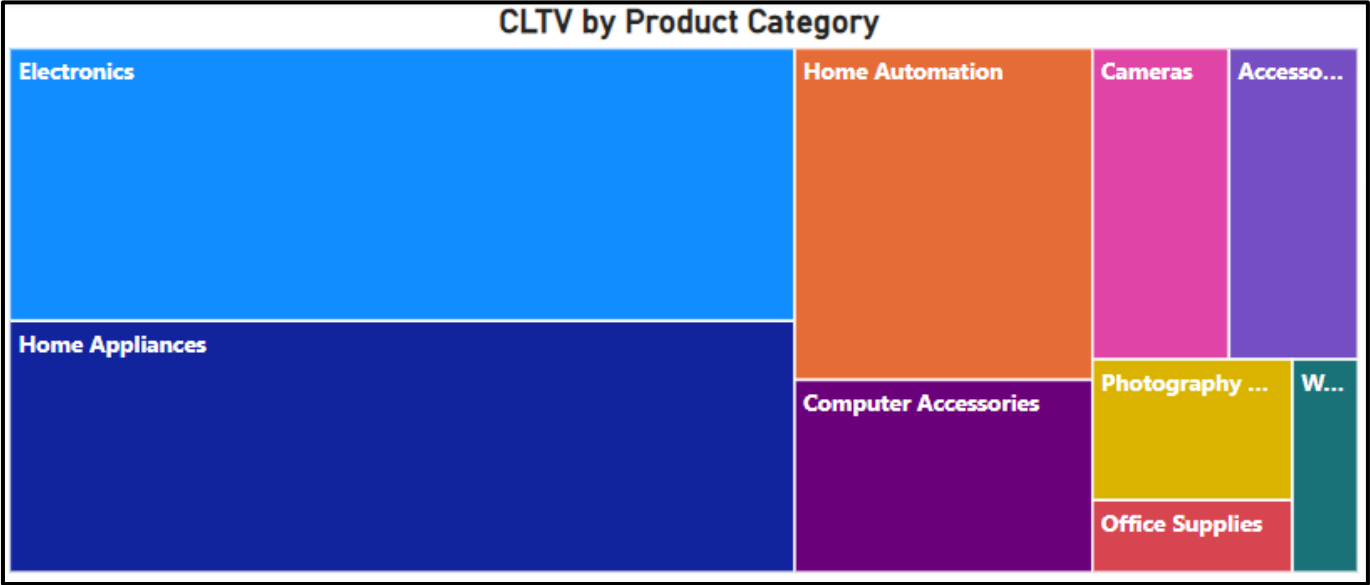
Data Visualization

VISUALIZATIONS :

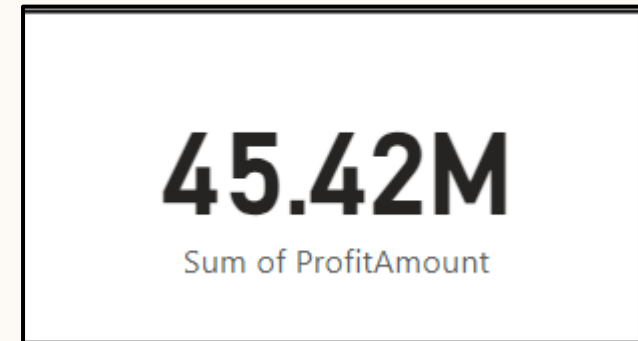
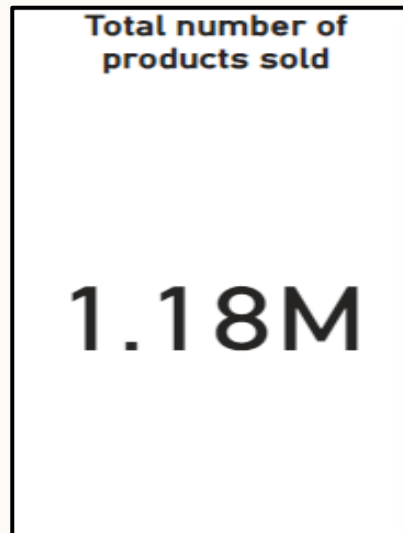
Pie and donut charts :



Tree map :



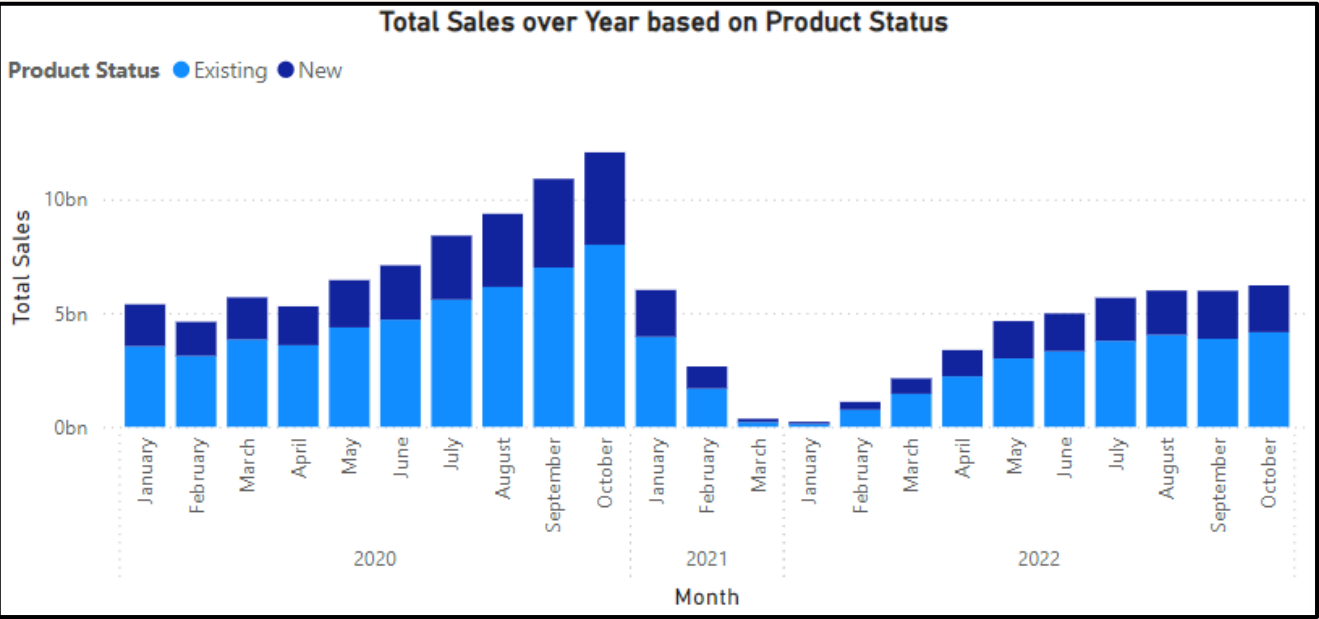
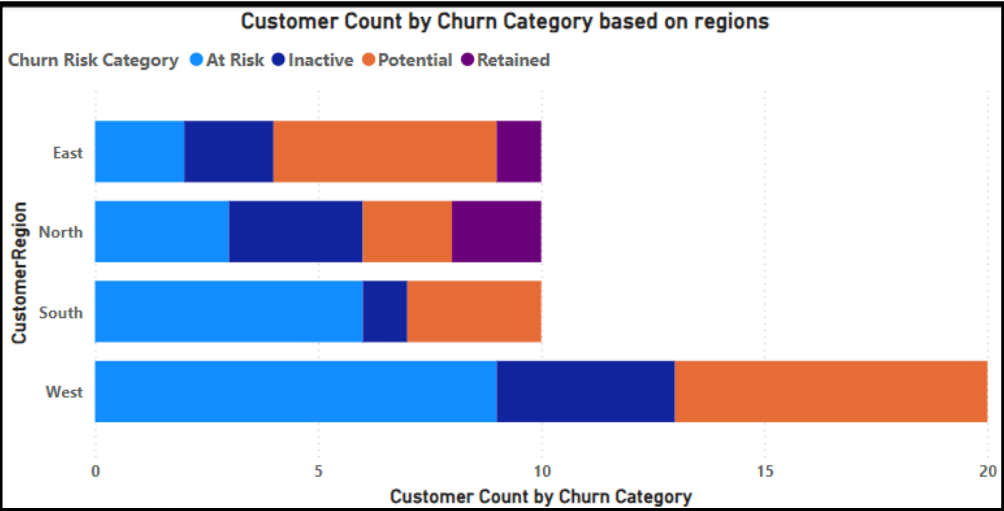
Cards :



Slicers :



Stacked column and bar chart :



Map :

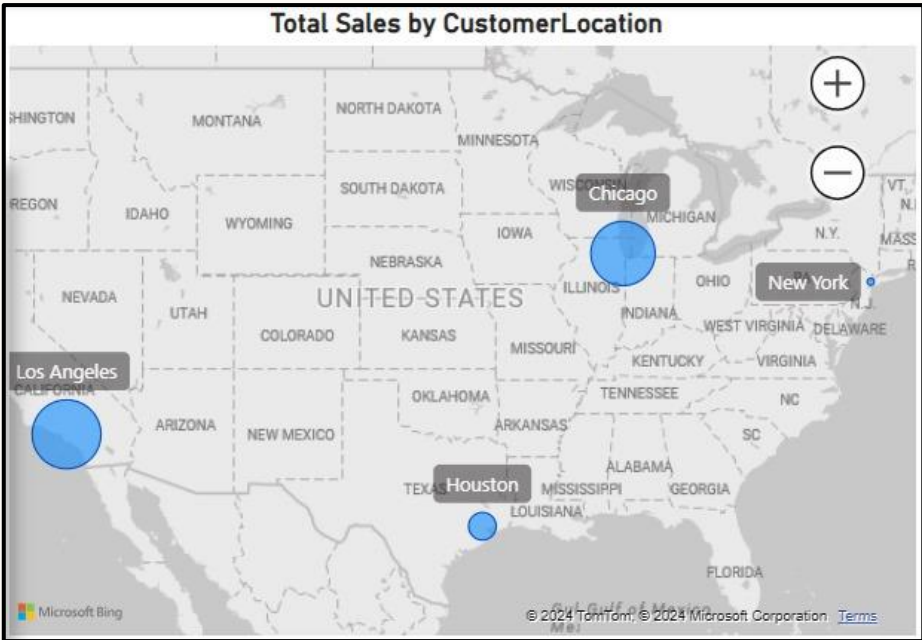
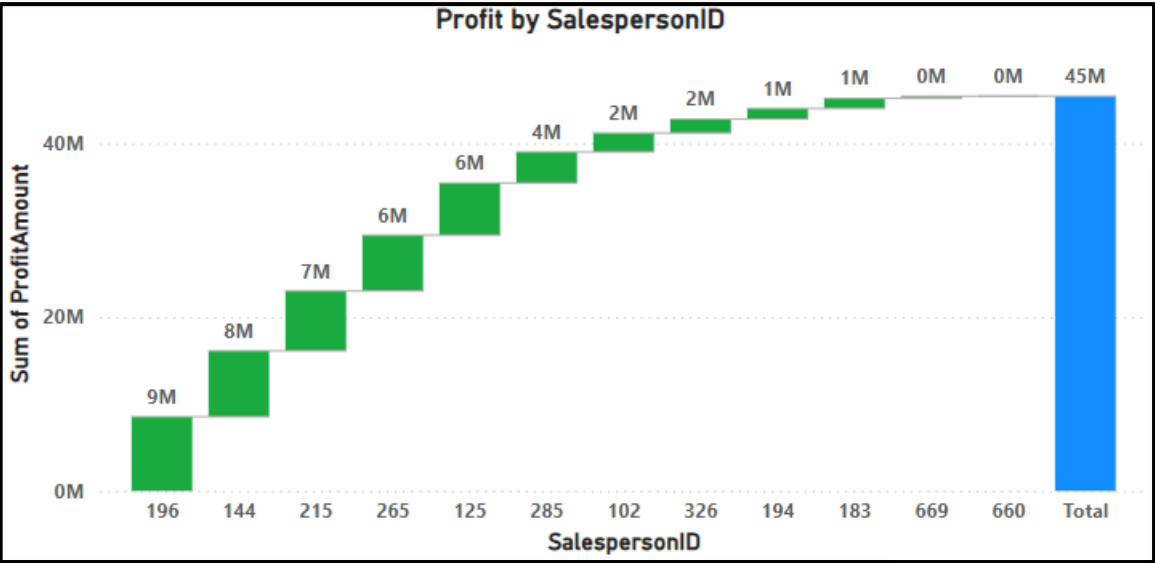
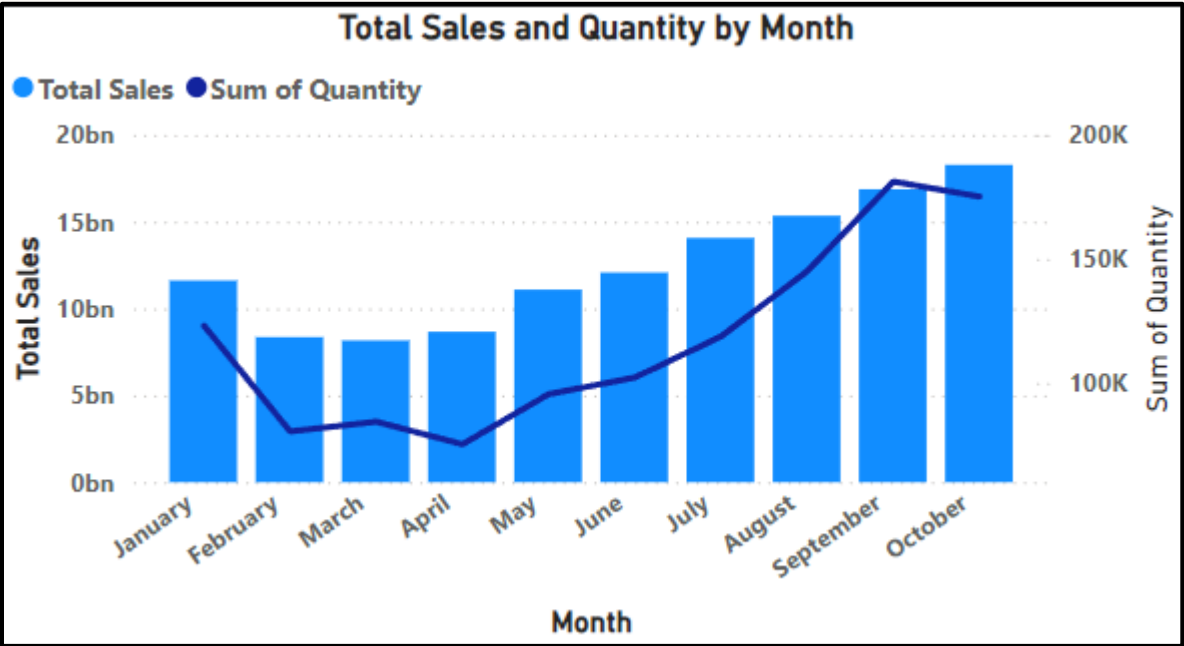


Table :

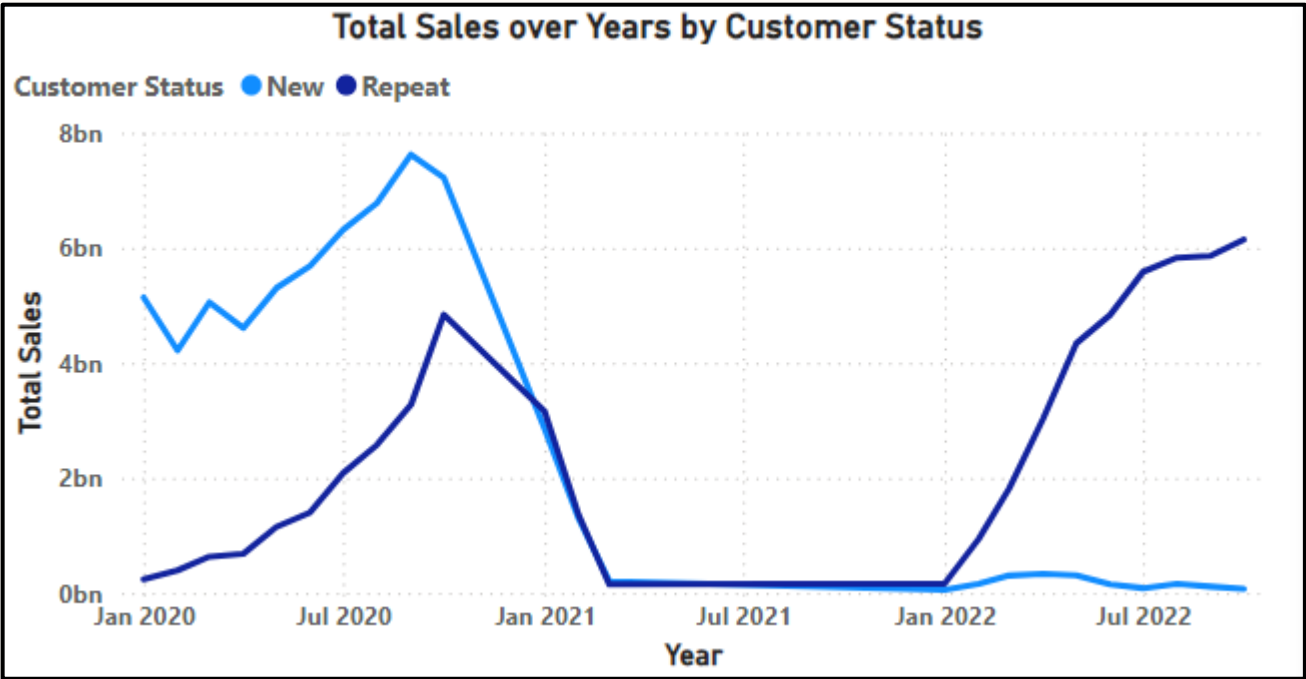
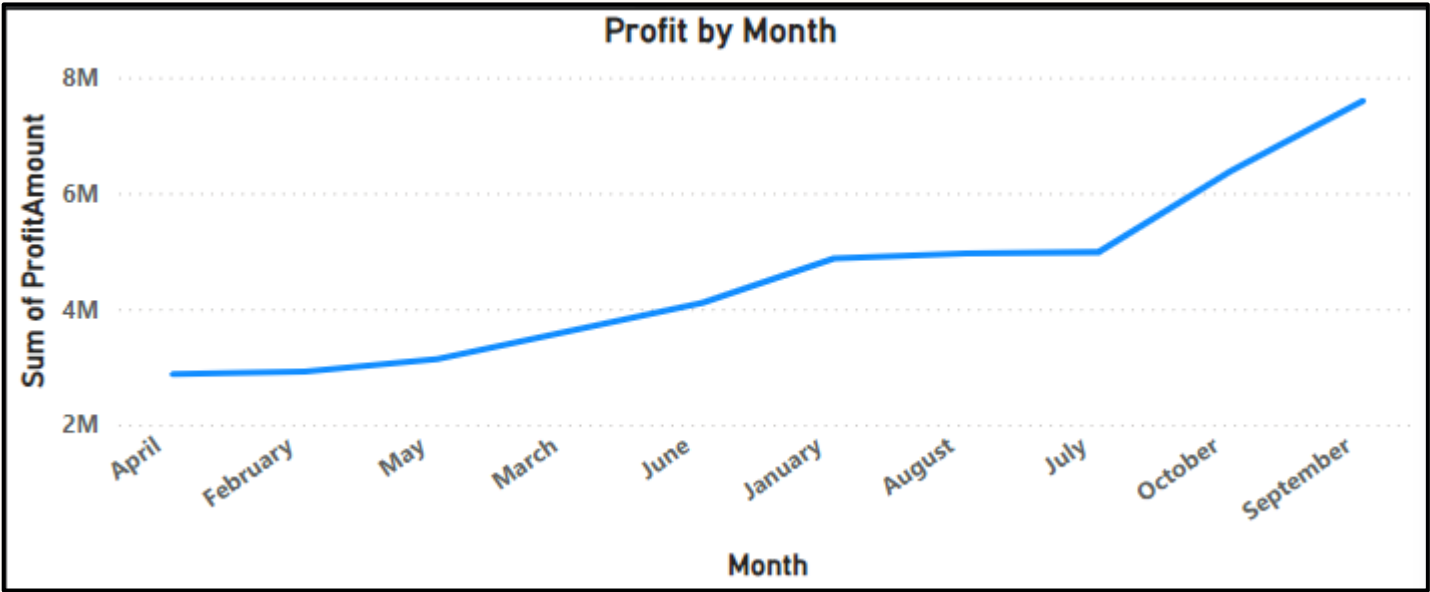
Top Customers	
CustomerName	Total Spend
Wyatt Bell	1,15,06,552.33
Zoe Turner	97,84,137.59
Olivia Garcia	90,25,438.85
Noah Lewis	85,27,329.67
Benjamin Campbell	71,58,660.49
Jessica Martinez	71,17,483.70
Logan Adams	69,14,727.20
Laura Miller	67,60,656.03
Amelia Scott	65,87,655.58
Emily Johnson	64,32,494.64
Jackson Edwards	63,60,394.87

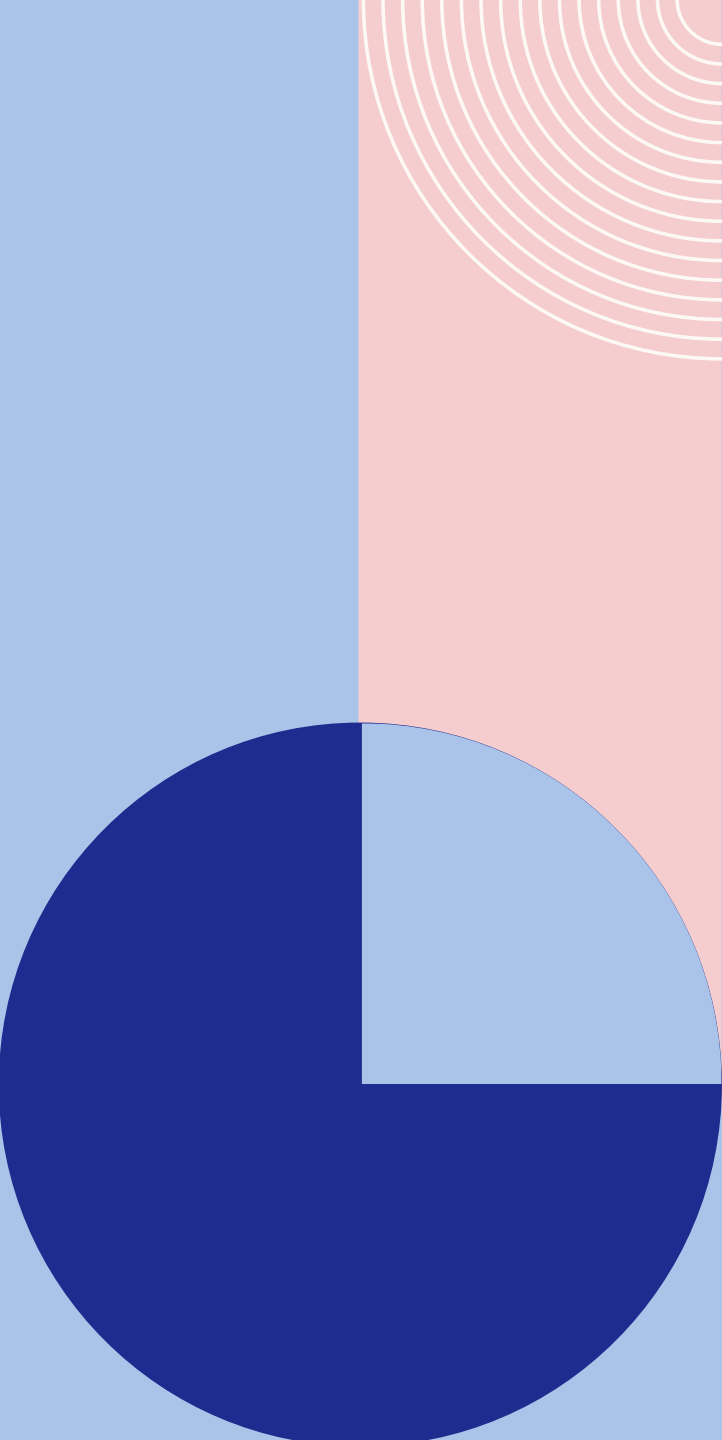
Line and column chart :



Waterfall chart :

Line chart:

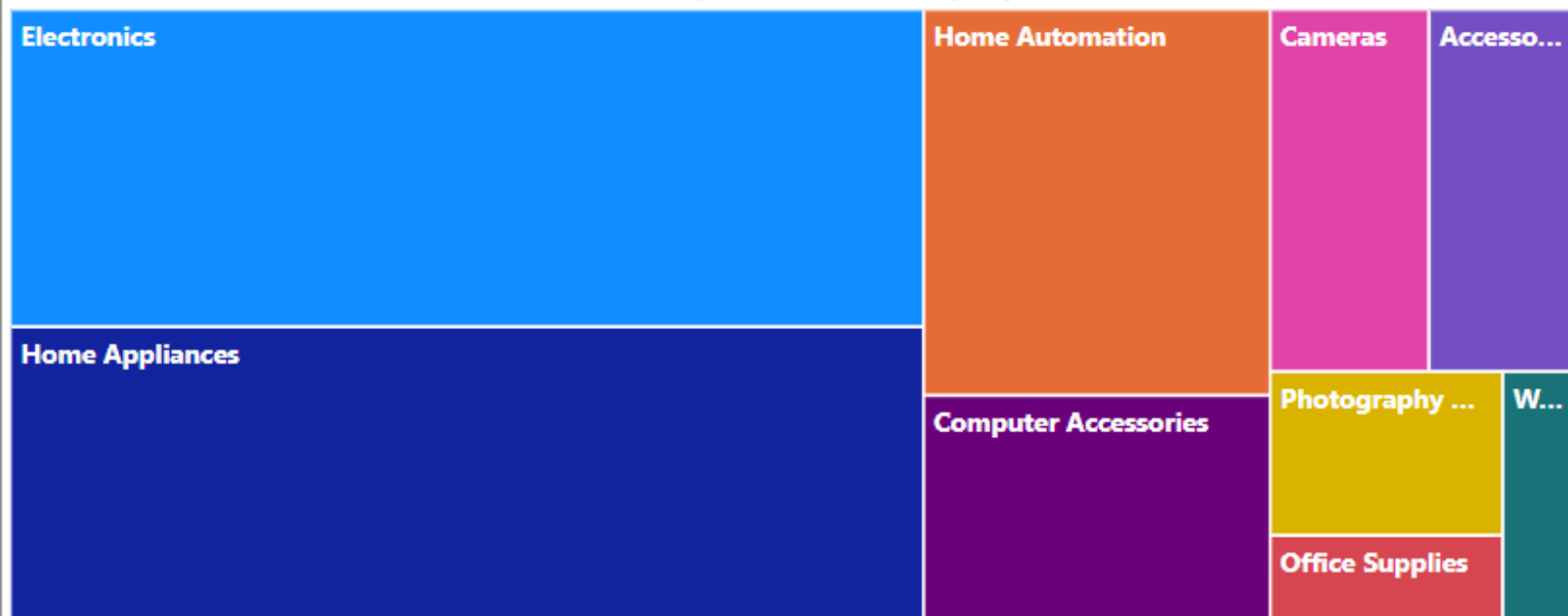




MODULE-4

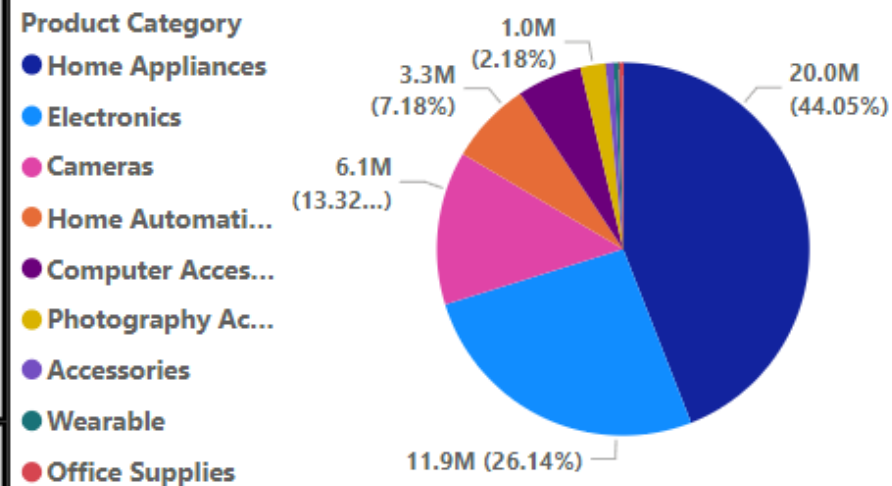
Dashboard

CLTV by Product Category



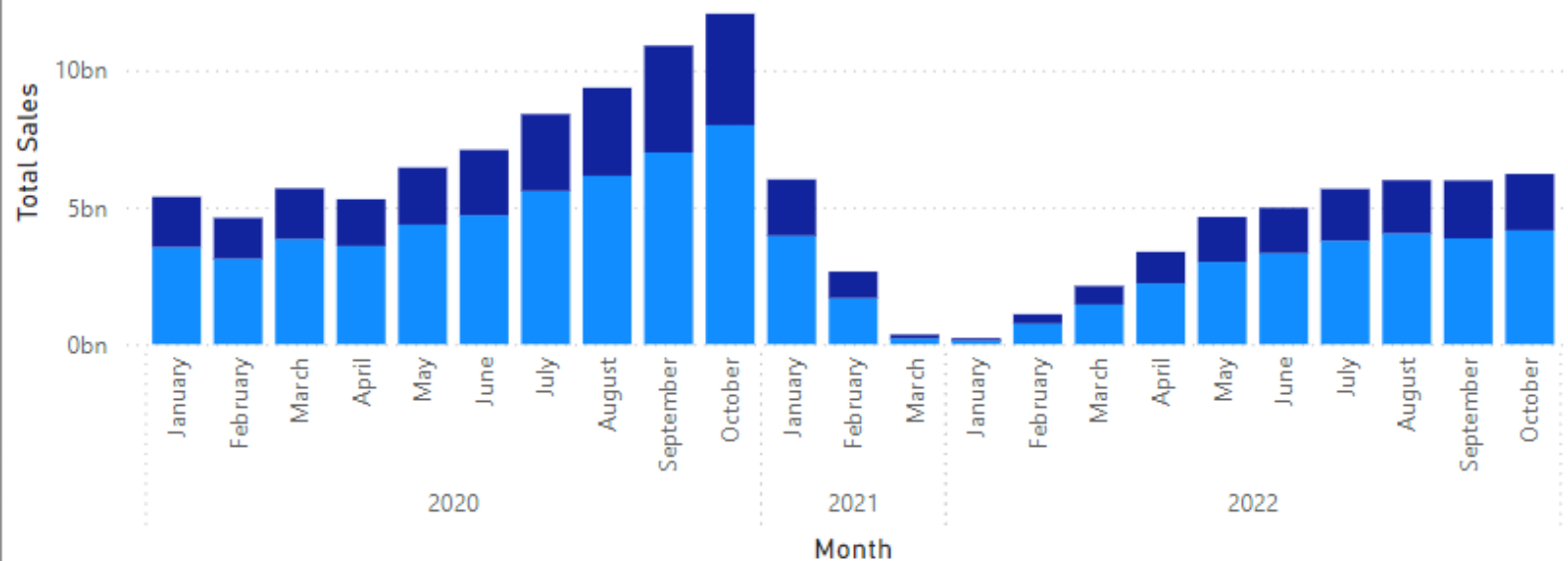
Product Analysis

Profit Earned by Product Category



Total Sales over Year based on Product Status

Product Status Existing New

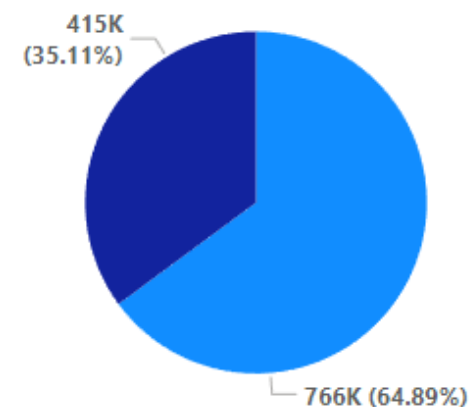


Total number of products sold

1.18M

Quantity by Product Status

Produ... Existing New



Sales Analysis

Year

2020

2021

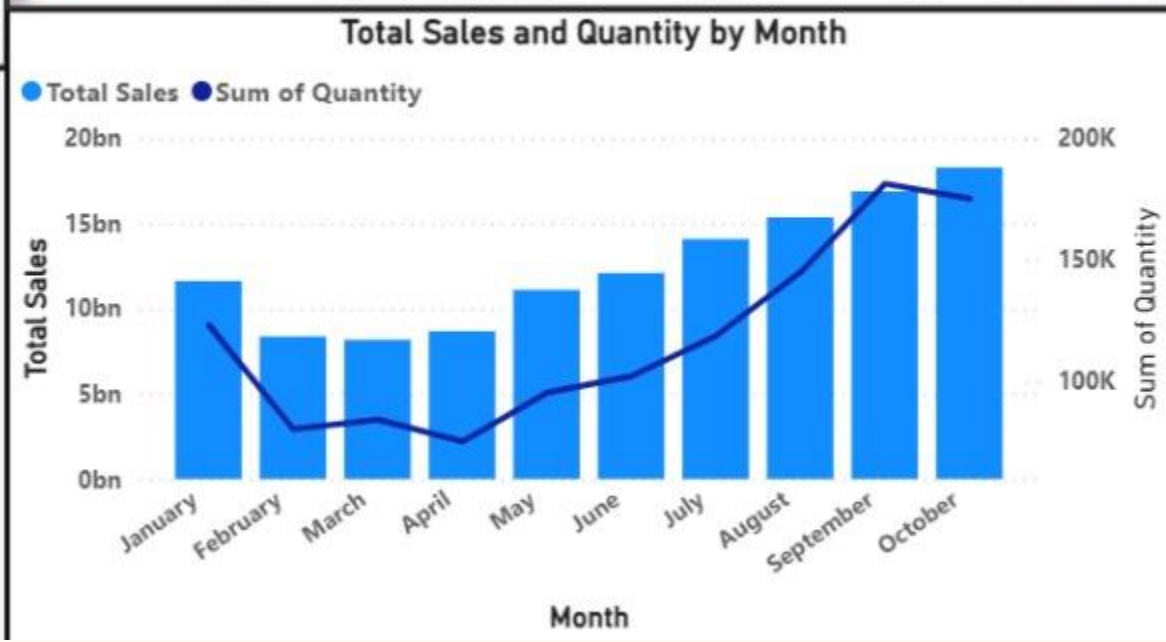
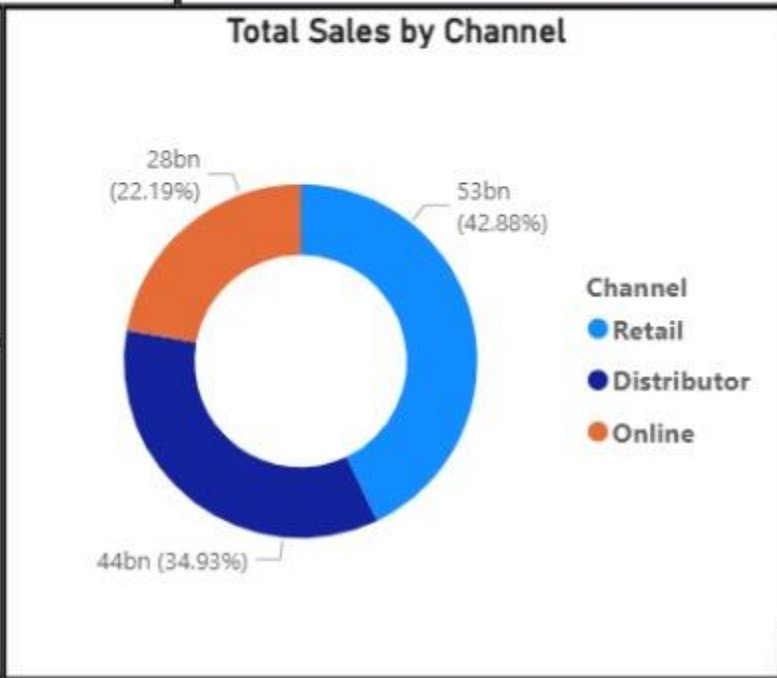
2022

125bn

Total Sales

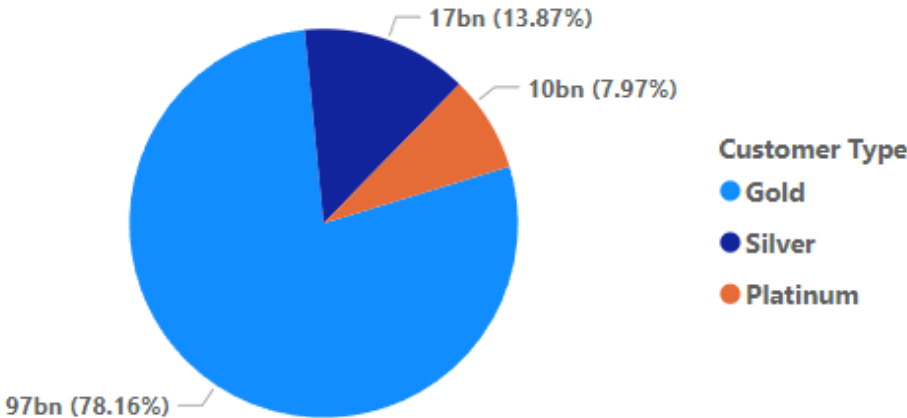
45.42M

Sum of ProfitAmount



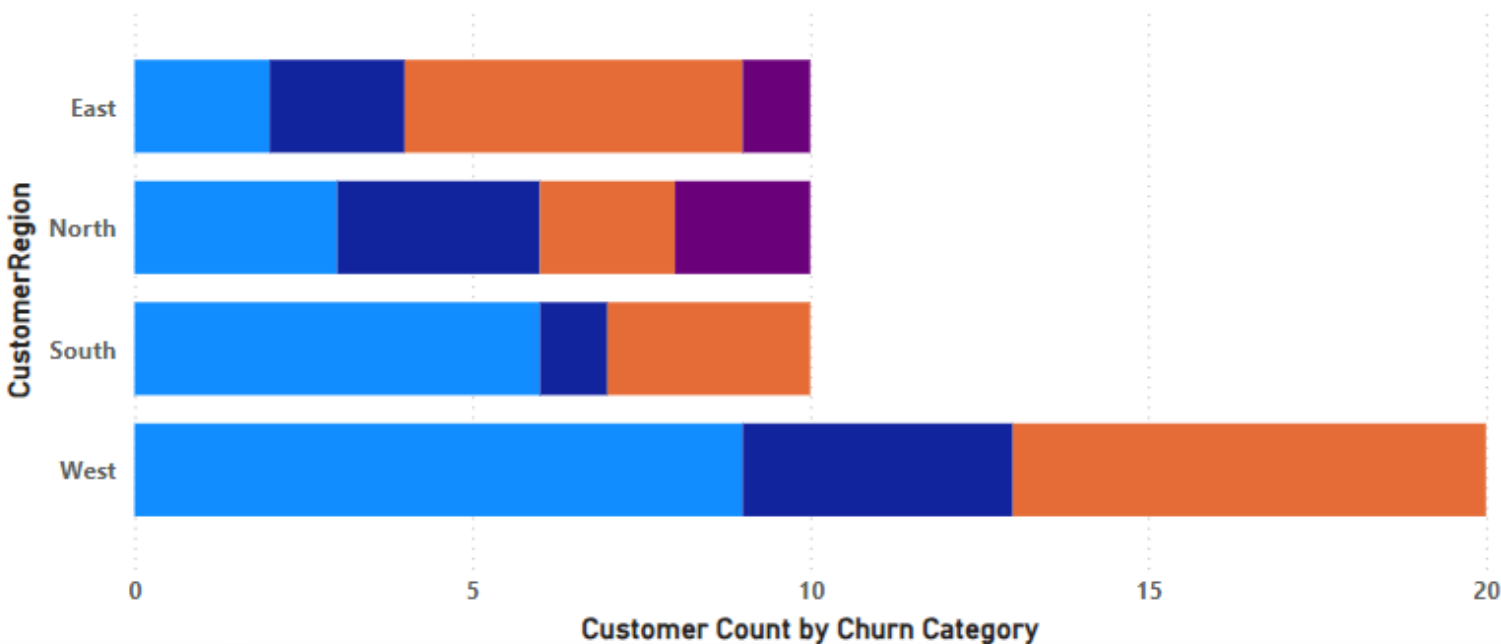
Customer Analysis

Total Sales by Customer Type



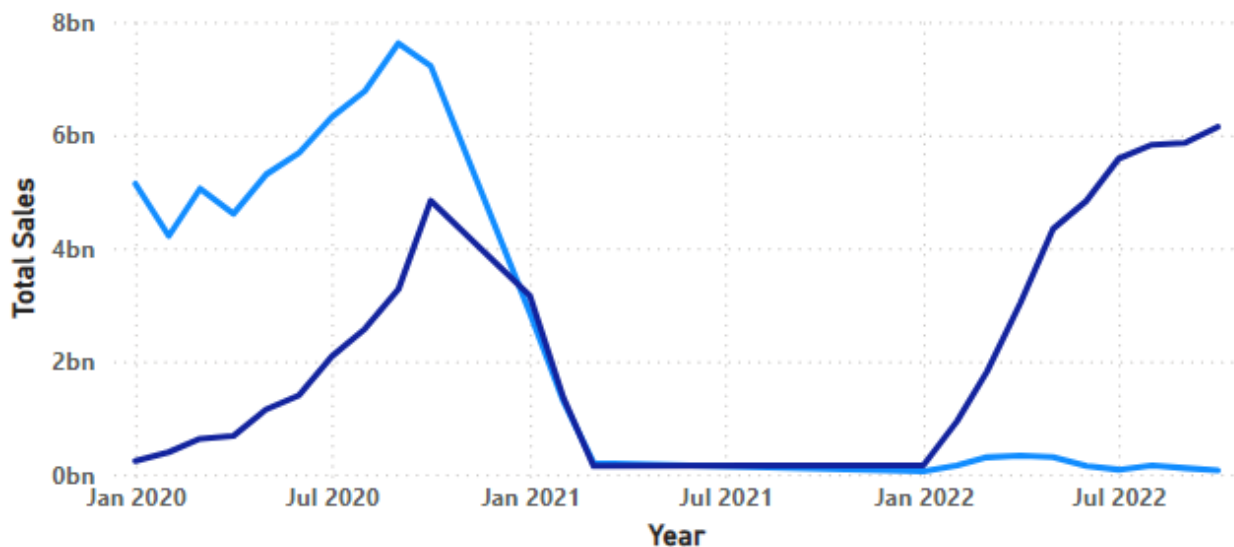
Customer Count by Churn Category based on regions

Churn Risk Category ● At Risk ● Inactive ● Potential ● Retained



Total Sales over Years by Customer Status

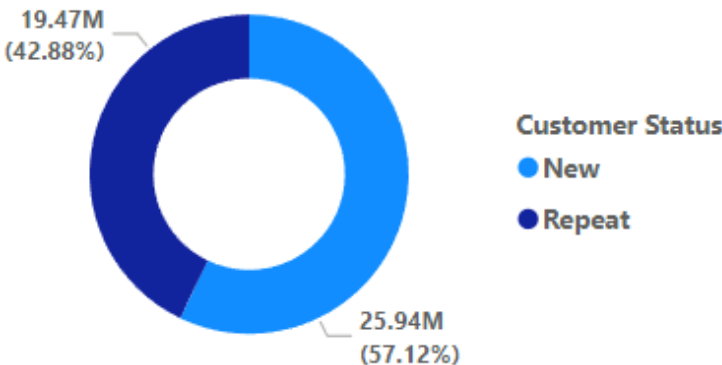
Customer Status ● New ● Repeat



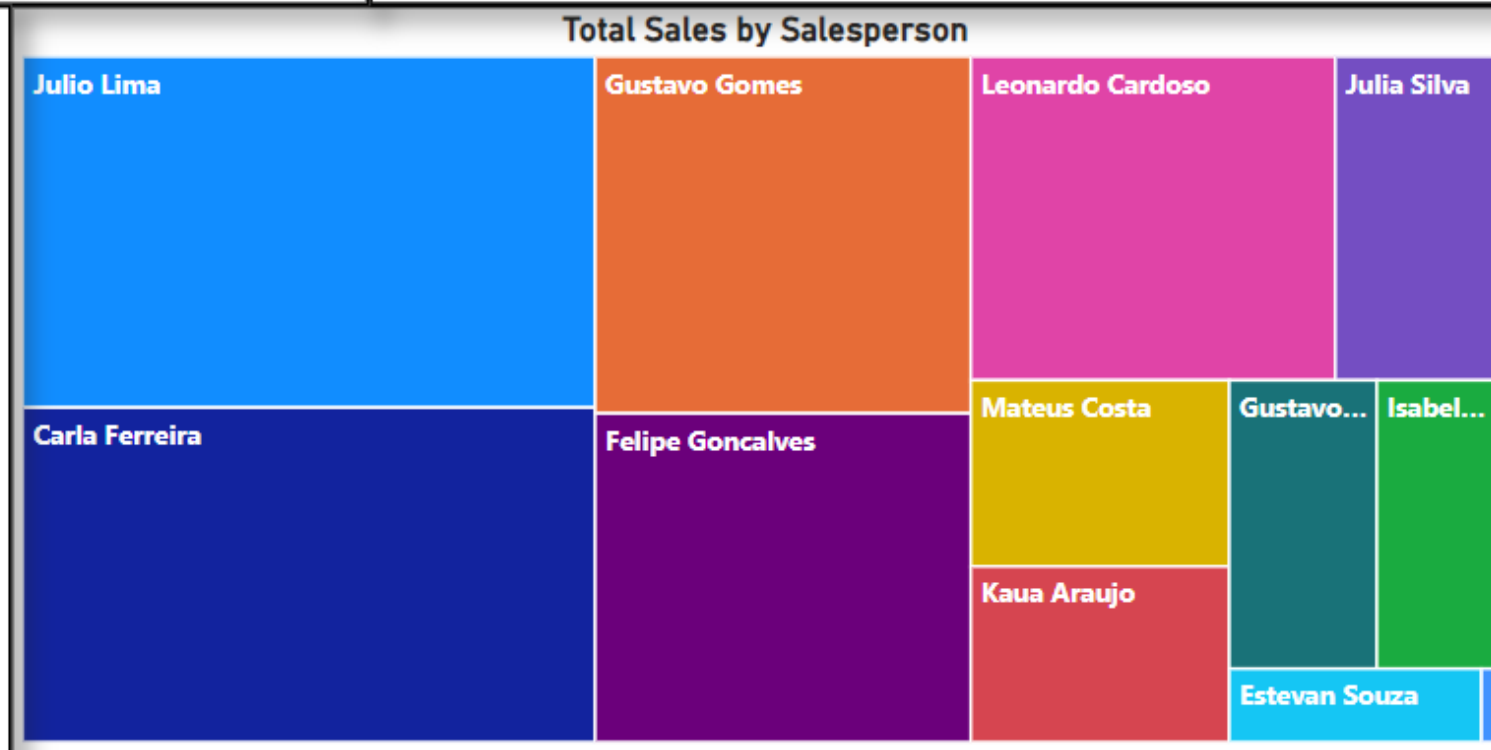
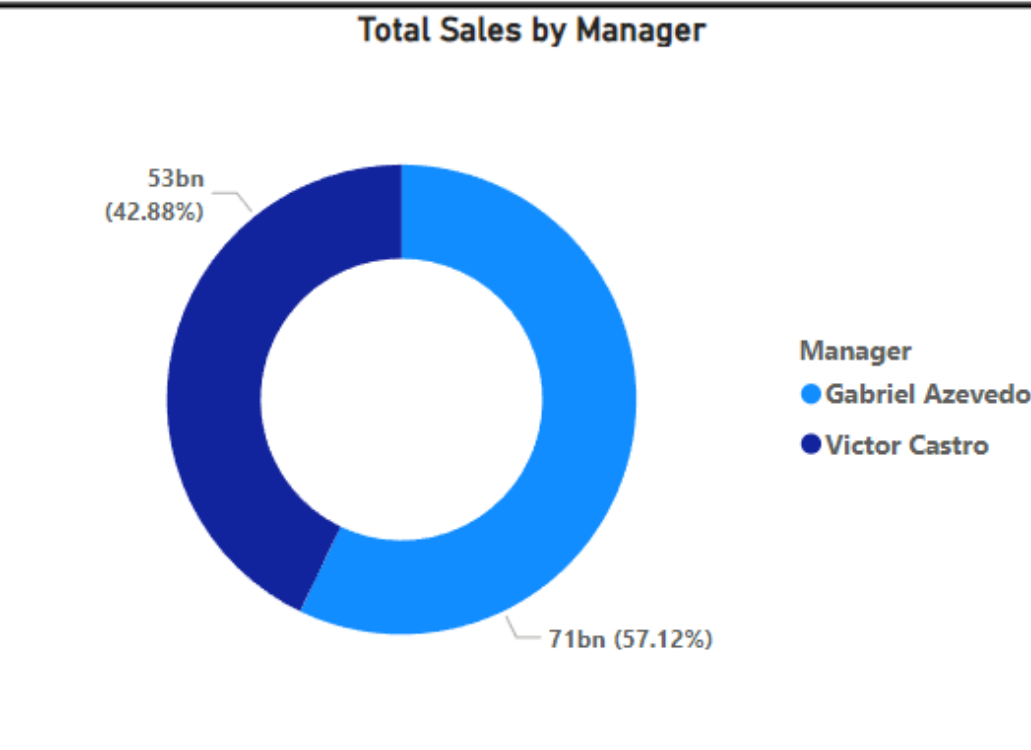
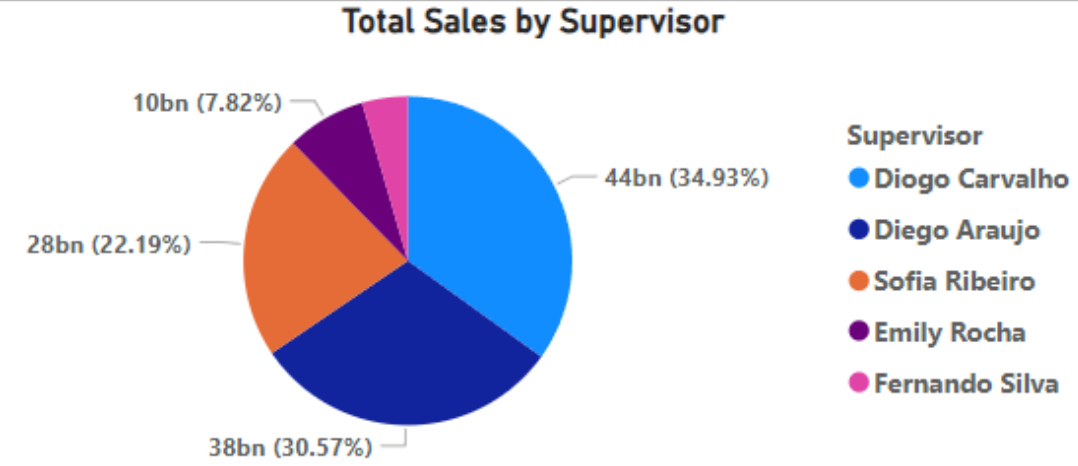
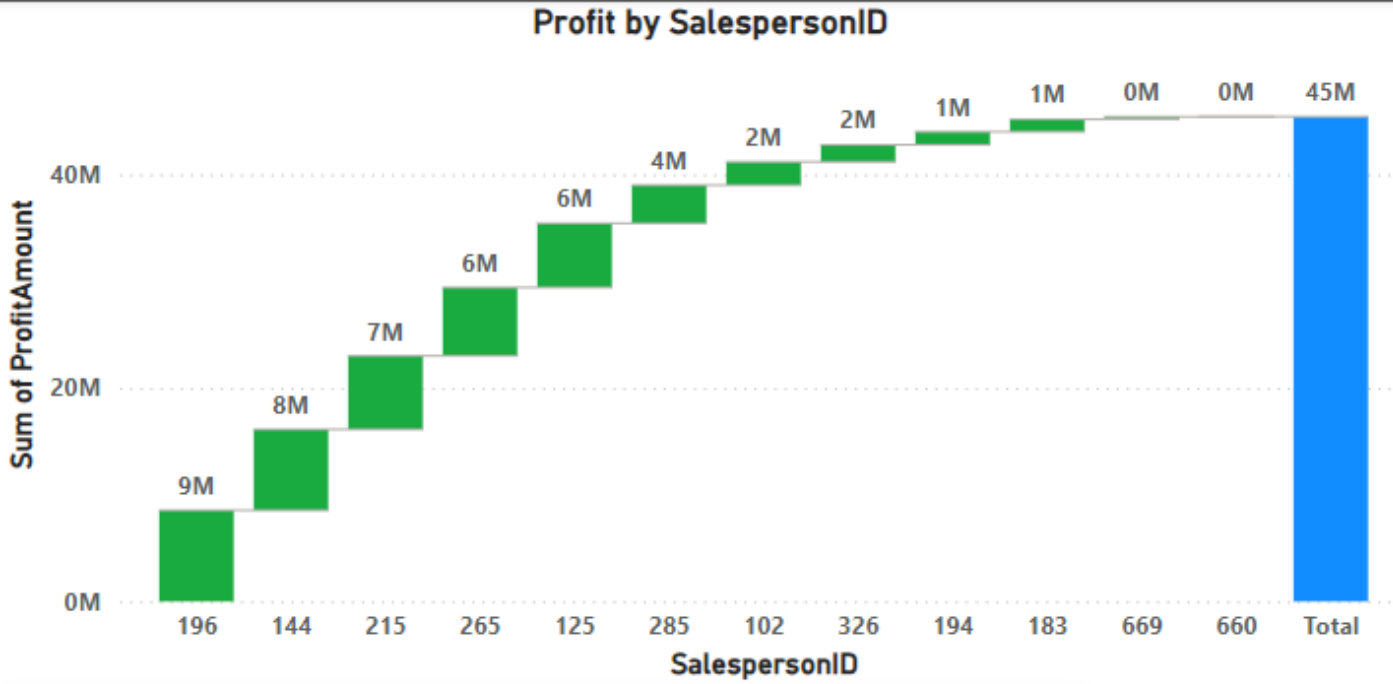
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Emily Johnson	64,32,494.64
Jackson Edwards	63,60,394.87

Profit gained by Customer Status



Salesperson Analysis



CONCLUSION :

- The Sales Performance Dashboard offers a **comprehensive view** of sales dynamics, customer behaviours, and product trends.
- Key analyses like **CLTV**, **churn risk**, and **product sales cannibalization** provide actionable insights for **business growth** and **customer retention**.
- Advanced visualizations, such as **ribbon charts**, **pie charts**, and **geo-mapping**, ensure **data is interpretable** and actionable.
- Real-time decision-making is supported, enabling businesses to adapt to challenges and opportunities.
- A modular design ensures **future scalability**, aligning with evolving business needs.



FUTURE ENHANCEMENTS:

Advanced Segmentation: Categorize customers by behaviour and demographics for personalized marketing.

Predictive Analytics: Employ machine learning for **sales forecasting** and inventory optimization.

Marketing Impact Analysis: Assess campaign effectiveness on customer acquisition and retention.

Enhanced Geo-Spatial Insights: Use advanced maps to identify local trends and adjust strategies.

Product Velocity Analysis: Measure product demand trends to optimize production.

Discount Effectiveness Analysis: Evaluate promotion impacts to maximize revenue.

Sentiment Tracking: Integrate customer feedback for better product development



THANK YOU

Team profit detectors