

Marketing and Retails Analytics

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Contents of presentation :

1. Available data walk-through
2. Analysis of Sales
3. Customer segmentation
4. Business enhancement strategies

The data has 20 variables and 2747 entries.
There are no null values present.

```
Data columns (total 20 columns):
#   Column                               Non-Null Count  Dtype
---  -
0   ORDERNUMBER                          2747 non-null   int64
1   QUANTITYORDERED                      2747 non-null   int64
2   PRICEEACH                           2747 non-null   float64
3   ORDERLINENUMBER                      2747 non-null   int64
4   SALES                                2747 non-null   float64
5   ORDERDATE                            2747 non-null   datetime64[ns]
6   DAYS_SINCE_LASTORDER                 2747 non-null   int64
7   STATUS                               2747 non-null   object
8   PRODUCTLINE                          2747 non-null   object
9   MSRP                                 2747 non-null   int64
10  PRODUCTCODE                          2747 non-null   object
11  CUSTOMERNAME                         2747 non-null   object
12  PHONE                                2747 non-null   object
13  ADDRESSLINE1                         2747 non-null   object
14  CITY                                 2747 non-null   object
15  POSTALCODE                           2747 non-null   object
16  COUNTRY                              2747 non-null   object
17  CONTACTLASTNAME                      2747 non-null   object
18  CONTACTFIRSTNAME                     2747 non-null   object
19  DEALSIZE                             2747 non-null   object
dtypes: datetime64[ns](1), float64(2), int64(5), object(12)|
```

We are dealing with a data that has:

6 Statuses

3 Dealsizes

7 ProductLines

109 ProductCodes

89 Unique customers

71 Cities

19 Countries

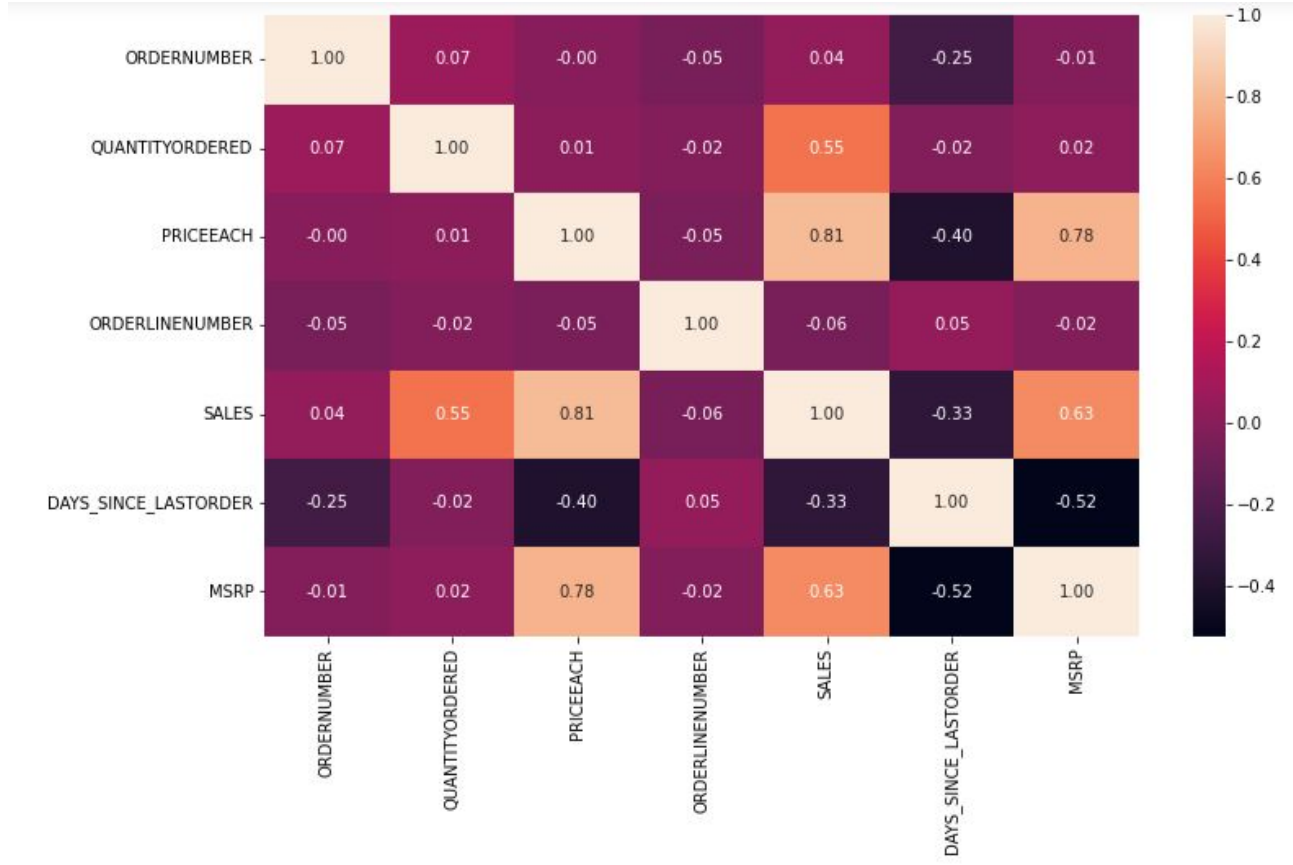
Mean Quantity ordered is 35.1

Mean Price of each is 101,09

Mean MSRP is 100.7

Correlation of Variables :

Sales has highest dependency on PriceEach and MSRP



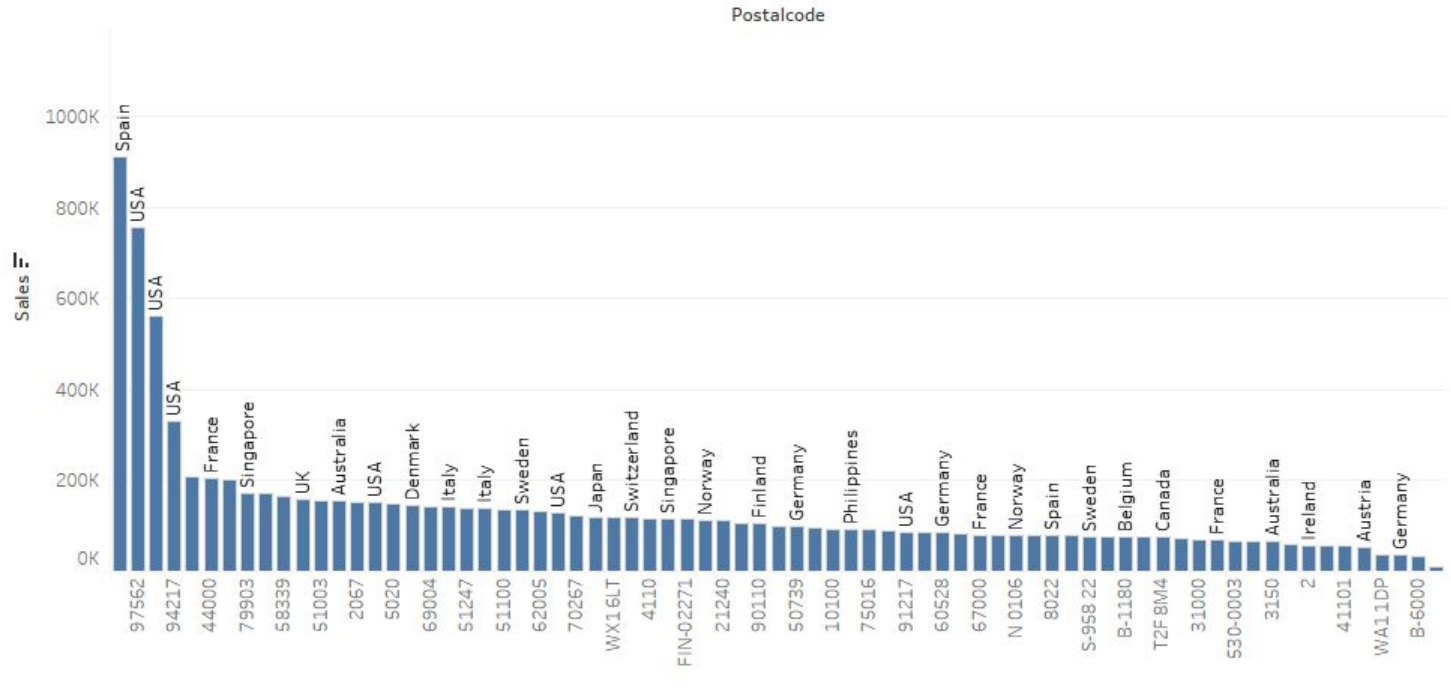
Postalcodes with top 3 Sales:

28034 (Spain)

97562 (USA)

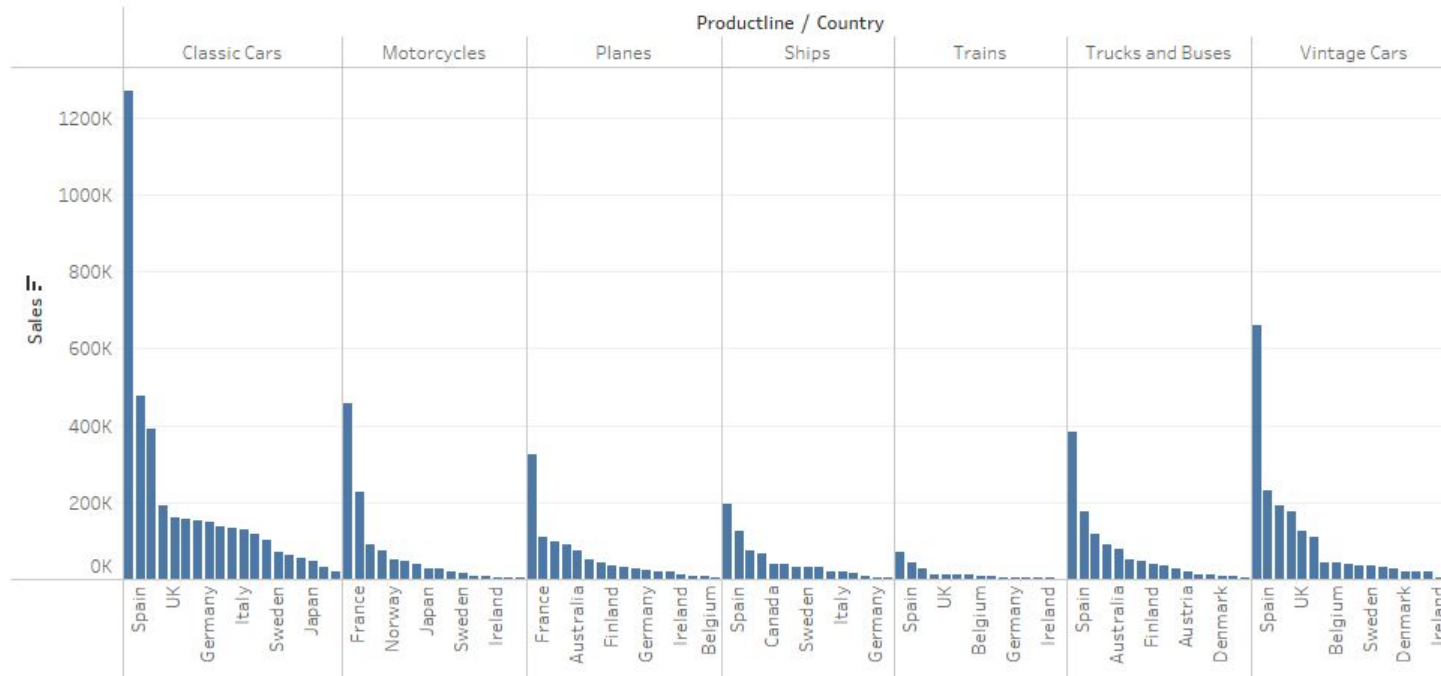
1002 (USA)

Sales vs Postalcode

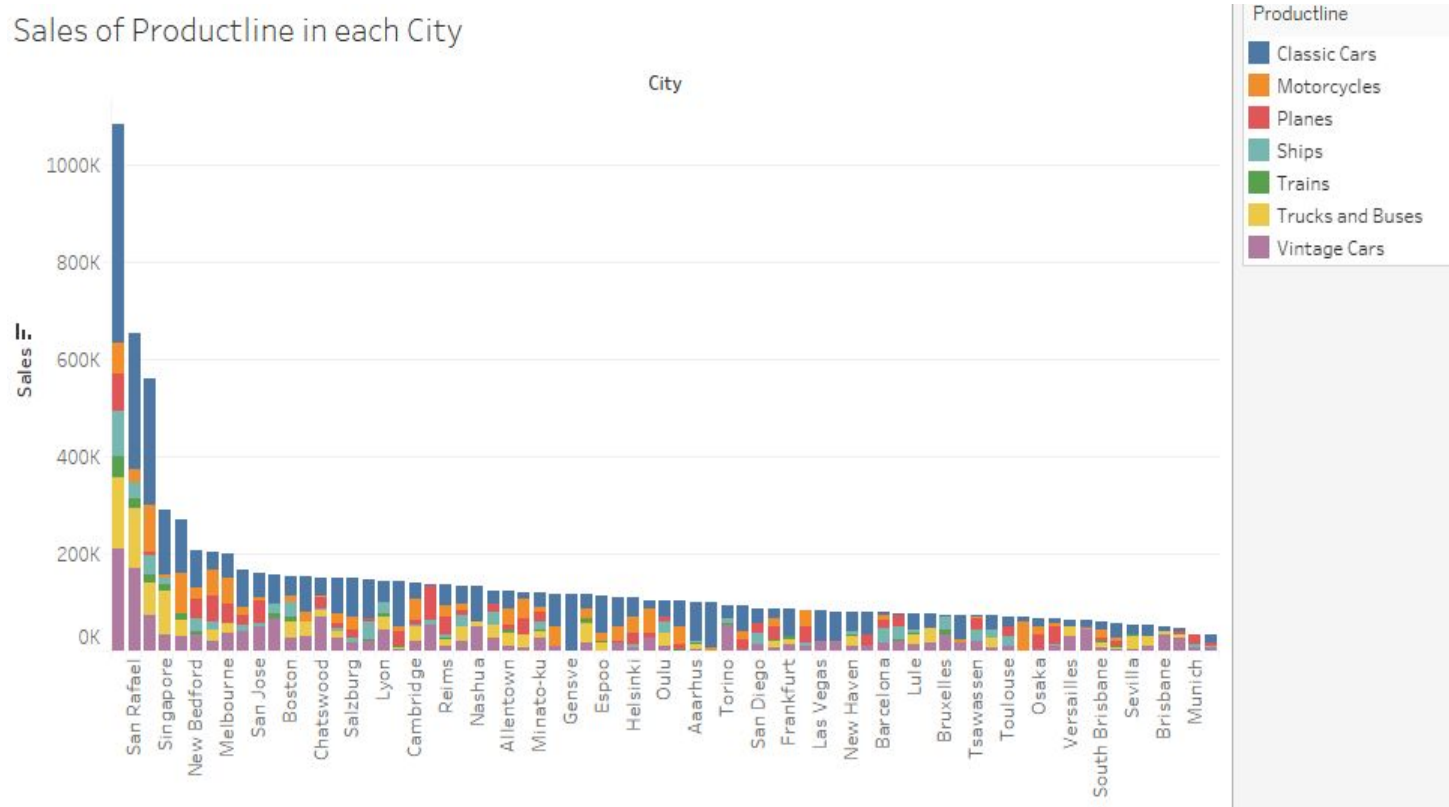


USA and France highest sales across different Productlines

Sales of Productline in each Country



Madrid and San Rafael cities have highest Sales, Classic Cars product being the best seller

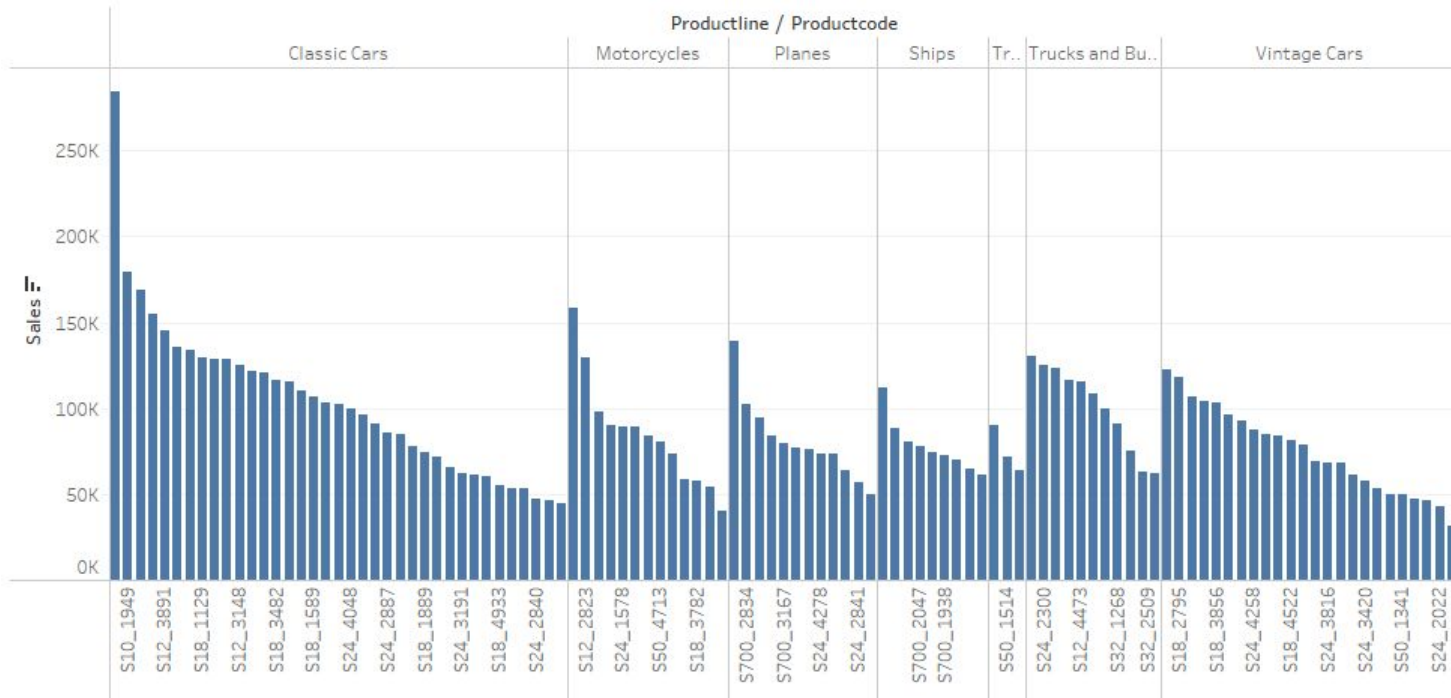


Top selling ProductCodes in each ProductLine:

Classic Cars:	S18_3232, S10_1949
Motorcycles:	S10_4698, S12_2823
Planes:	S18_1662, S700_2834
Ships:	S24_2011, S700_3505
Trains:	S18_3259, S50_1514
Trucks & Buses:	S12_1666, S24_2300
Vintage Cars:	S18_1749, S18_2795

Sales of ProductCodes in each ProductLine:

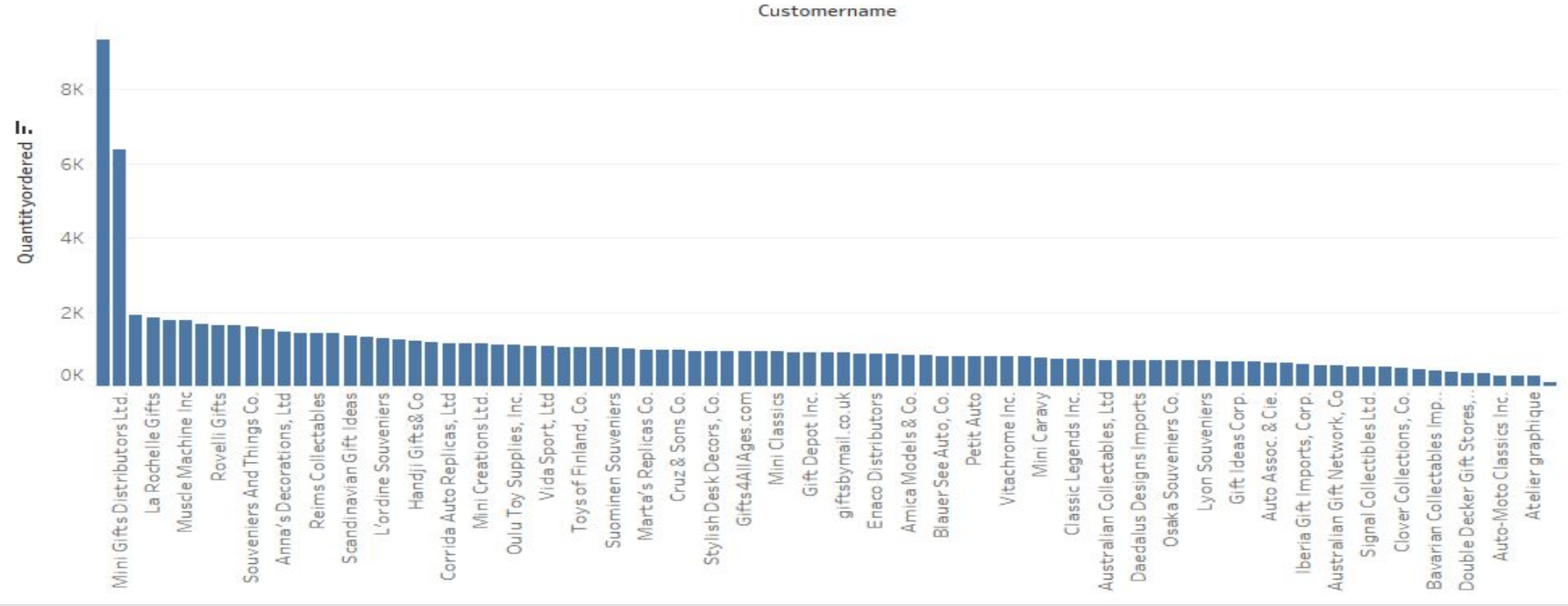
Sales of Productcode



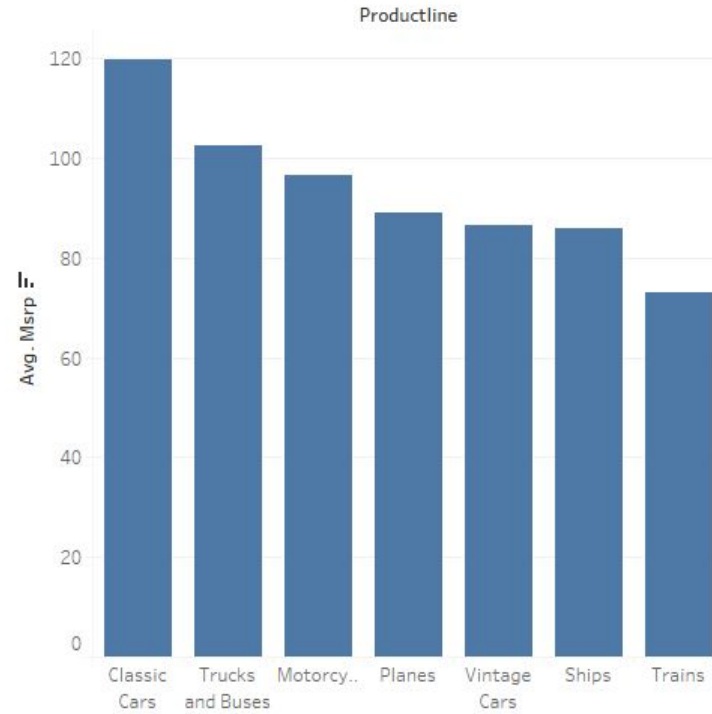
Customers with highest Quantity ordered:
Euro Shopping Channel, Mini Gifts Distributors Ltd

Customers with lowest Quantity ordered:
Boards & Toys Co. , Atelier graphique

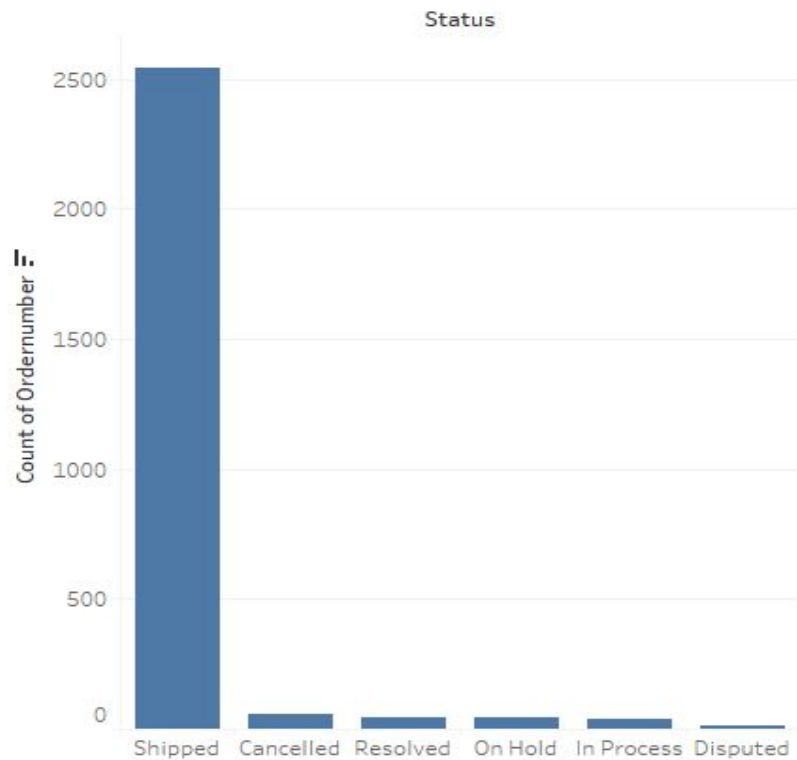
Customername vs Quantity ordered



Average MSRP for each Productline:

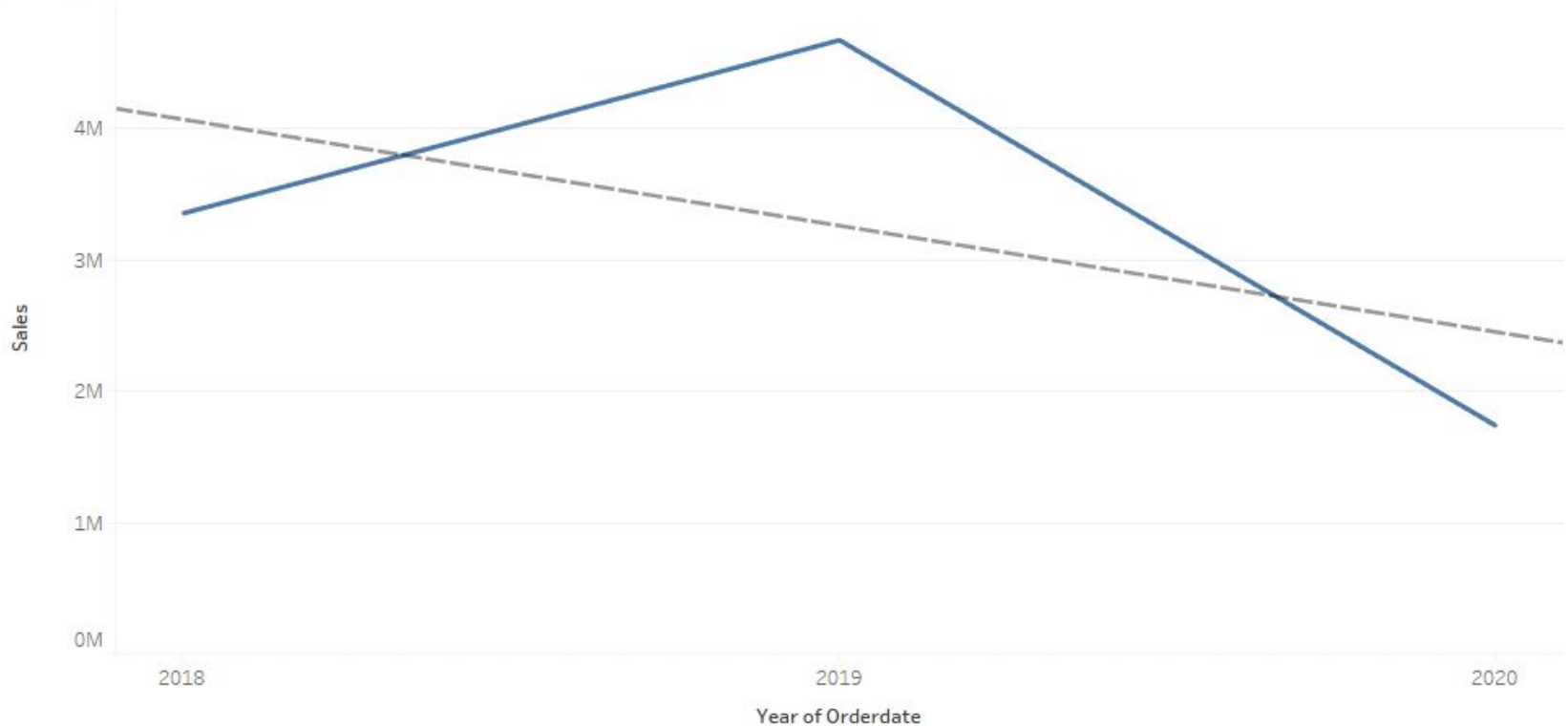


Status of orders:



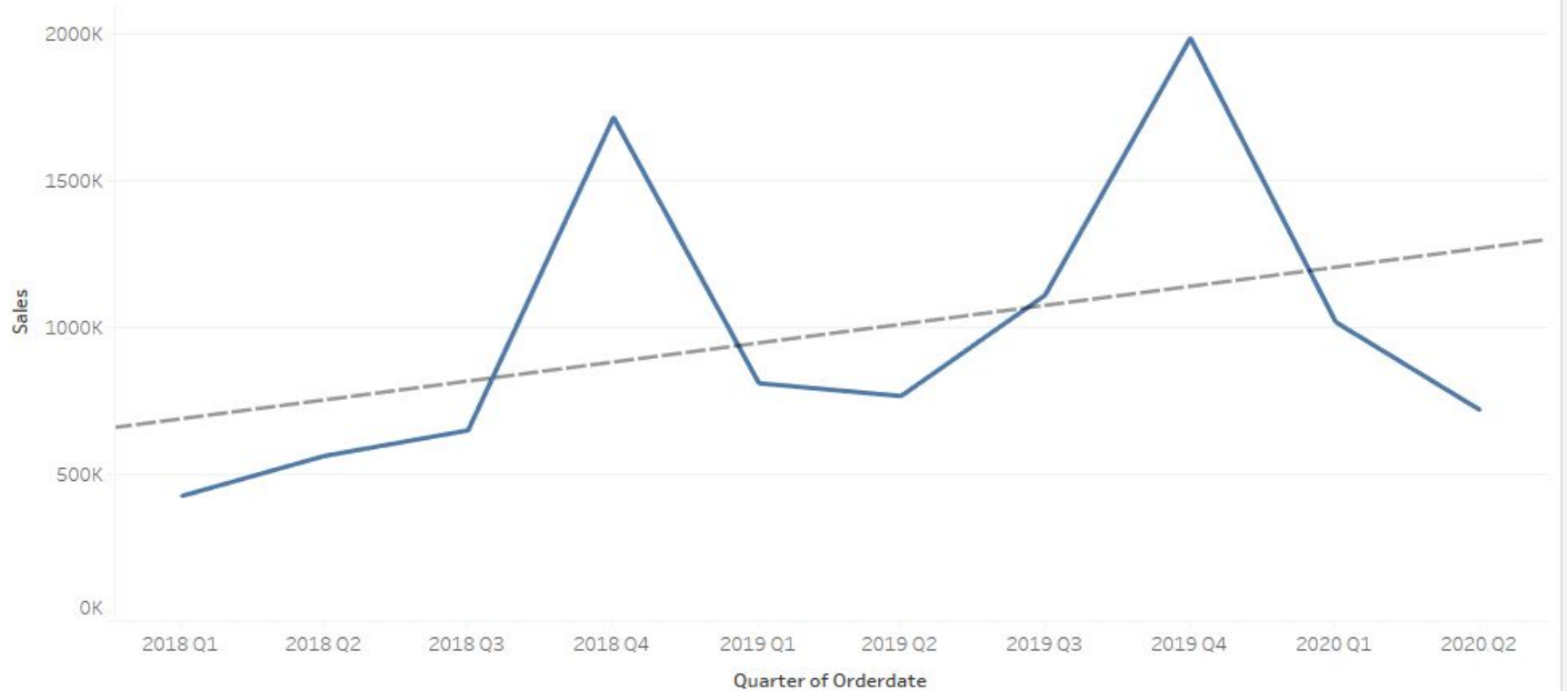
Decreasing trend for Yearly Sales :

Yearly Sales

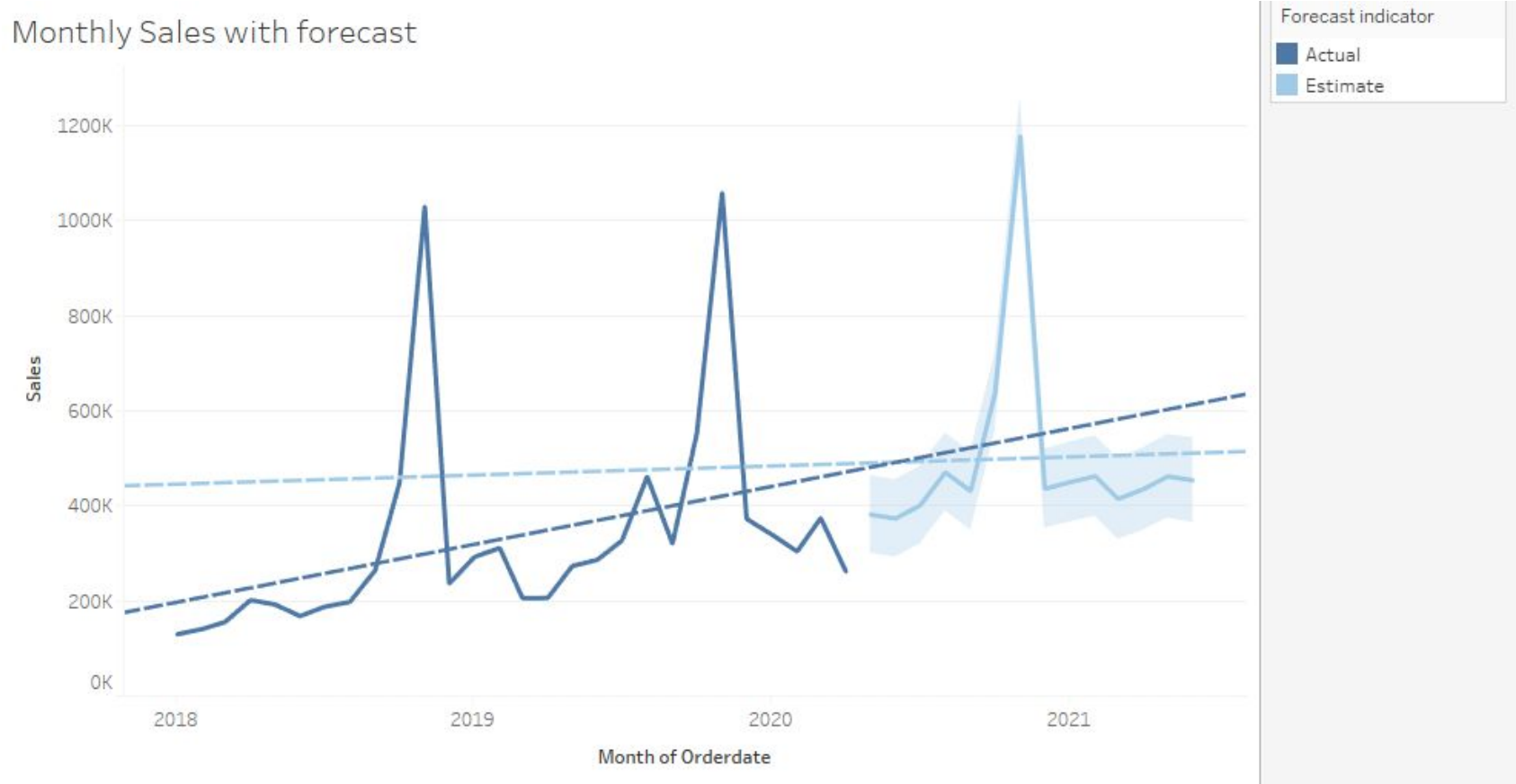


Increasing trend for quarterly sales :

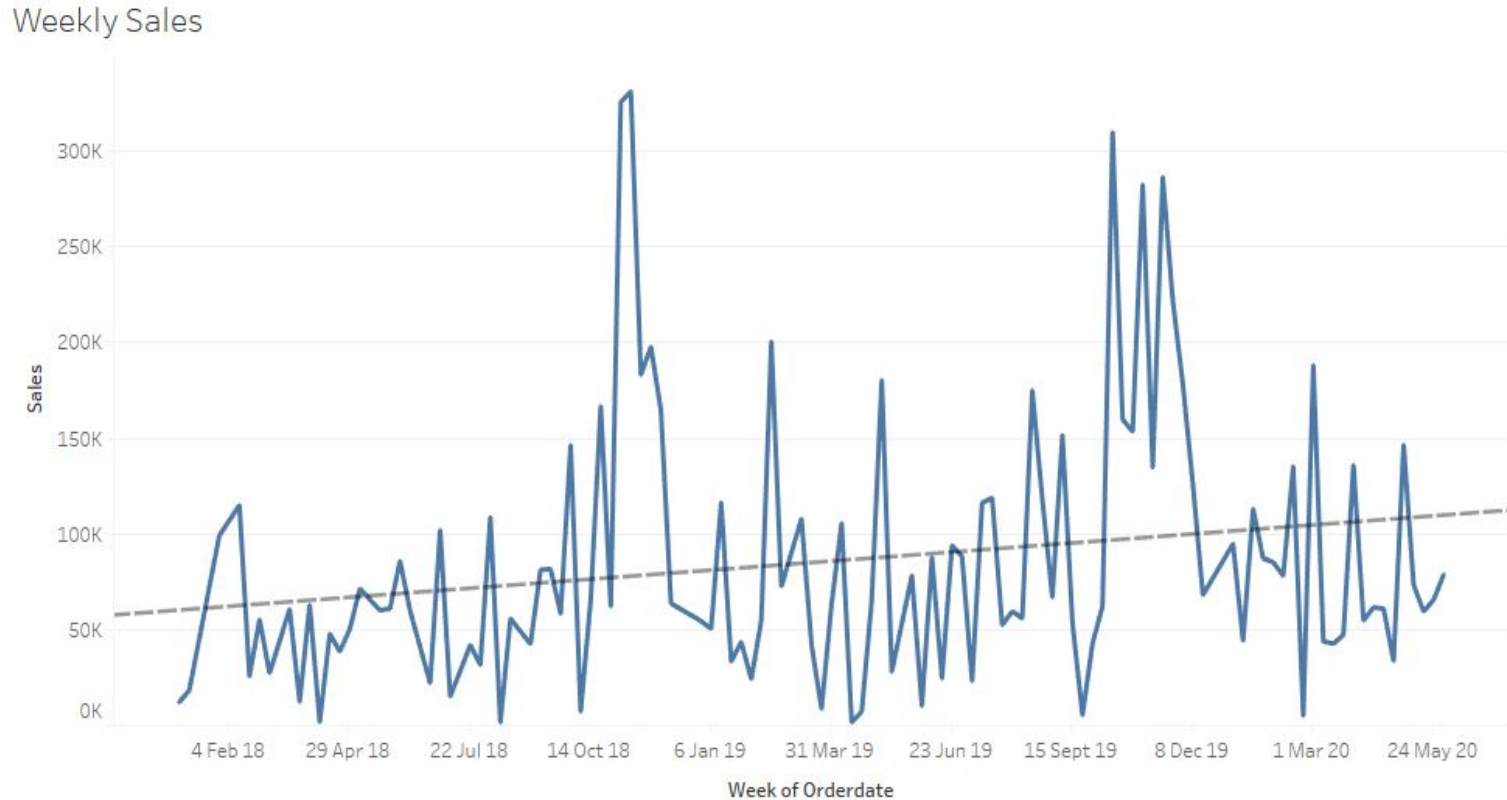
Quarterly Sales



Increasing trend for monthly sales along with forecast :

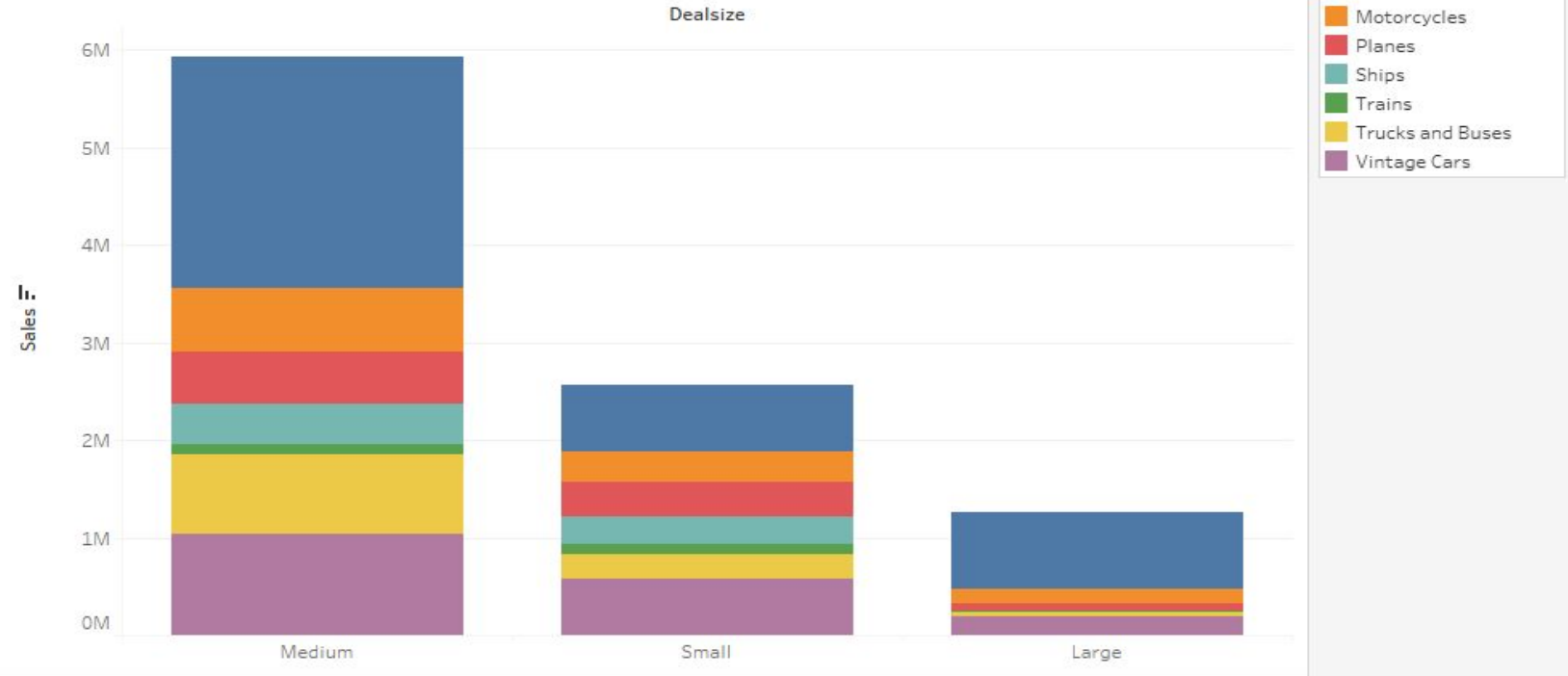


Increasing trend for weekly sales :



Medium dealsize have highest Sales
Classic cars are top sellers in all the categories here
Trains are poorest sellers in all the categories here

Dealsize Sales with Productline



RFM:

RFM stands for Recency Frequency Monetary

RFM analysis is a marketing technique used to quantitatively rank and group customers based on the recency, frequency and monetary total of their recent transactions to identify the best customers and perform targeted marketing campaigns.

Recency – How recent did the customer use the business' products or services

Eg; Today's date-Order date

Lower the difference, higher the recency

Frequency – How often the customer uses the business' products or services

Eg; Total number of orderID of a customer

Higher the count, higher the frequency

Monetary – How much does the customer spend on the business' products or services

Eg; Sum of billAmount of all orders for the customer

Higher the sum, higher the monetary

A perfect customer uses the business' products or services often, visits the business frequently, and has high billing amount

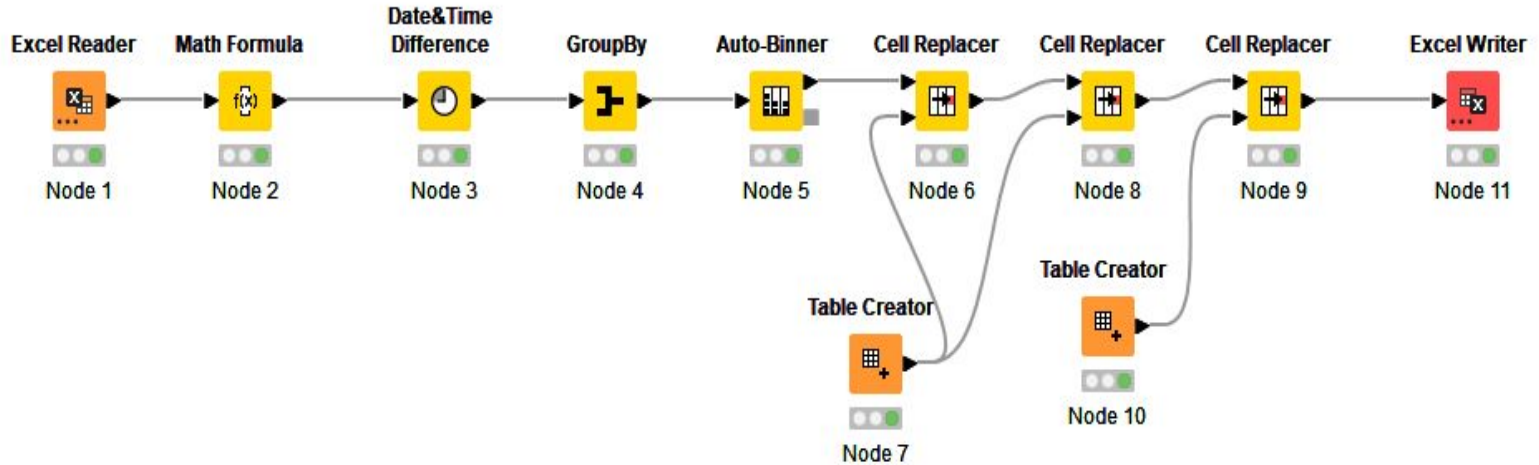
A bad customer barely uses the business' services or products, does not visit business store frequently and has low billing amount

A mediocre customer falls between the 2 and could use targeted marketing

Customers are divided into Gold, Silver and Bronze categories.

Strategies and targeted marketing should transition customers from Silver to Gold and Bronze to Silver to enhance the business profits

KNIME Workflow:



Output table head:

CUSTOMERNAME	QUANTITYORDERED	SALES	MSRP	Monetary	Recency	ORDERNUMBER	PRICEEACH	ORDERDATE	STATUS	PRODUCTLINE	PRODUCTCODE	Monetary	Recency	ORDERNUMBER	Monetary	Frequency	Recency
AV Stores, Co.	34.8627451	3094.271	92.84314	157807.8	1202	51	91.08451	51	Shipped	51	51 Bin 3	Bin 2	Bin 3	High	High	Medium	
Alpha Cognac	34.35	3524.422	97.15	70488.44	1070	20	101.16	20	Shipped	20	20 Bin 1	Bin 1	Bin 1	Low	Low	High	
Amica Models &	32.42307692	3619.895	107.6538	94117.26	1271	26	110.8527	26	Shipped	26	26 Bin 2	Bin 3	Bin 2	Medium	Medium	Low	
Anna's Decorative	31.93478261	3347.742	104.7174	153996.1	1089	46	106.4241	46	Shipped	46	46 Bin 3	Bin 2	Bin 3	High	High	Medium	
Atelier graphique	38.57142857	3454.28	95.57143	24179.96	1194	7	92.23857	7	Shipped	7	7 Bin 1	Bin 2	Bin 1	Low	Low	Medium	
Australian Collector	30.65217391	2808.324	88.13043	64591.46	1028	23	90.04174	23	Shipped, l	23	23 Bin 1	Bin 1	Bin 2	Low	Medium	High	

Best customers (HHH) - Danish Wholesale Imports , Euro Shopping Channel , L'ordine Souvenirs , La Rochelle Gifts , Mini Gifts Distributors Ltd.

Customers on the verge of churning (Low frequency) - Collectable Mini Designs Co. , Herkku Gifts , Marta's Replicas Co., Royal Canadian Collectables, Ltd. , Saveley & Henriot Co.

Lost customers (LLL)- Auto Assoc. & Cie. , CAF Imports , Cambridge Collectables Co. , Iberia Gift Imports, Corp. , Online Mini Collectables

Loyal customers (High frequency) - Mini Creations Ltd. , Muscle Machine Inc , Online Diecast Creations Co. , Technics Stores Inc.