MARKETING RETAIL ANALYTICS

GREAT LEARNING PGDSBA 2022-2023

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- Data Pre-processing

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- RFM Inferences and Business Recommendation

PROBLEM STATEMENT

- An automobile parts manufacturing company has collected data on transactions for 3 years. They do not have any in-house data science team thus they have hired you as their consultant. Your job is to use your data science skills to find the underlying buying patterns of the customers, provide the company with suitable insights about their customers, and recommend customized marketing strategies for different segments of customers

DATA DICTIONARY:

- ORDERNUMBER

STATUS

- QUANTITYORDERED

PRODUCTLINE

- PRICEEACH

MSRP

- ORDERLINENUMBER

PRODUCTCODE

- SALES

CUSTOMERNAME

- ORDERDATE

PHONE

- DAYS_SINCE_LASTORDER

COUNTRY

- ADDRESSLINE1

CONTACTLASTNAME

- CITY

CONTACTFIRSTNAME

- POSTALCODE

DEALSIZE

DATA PREPROCESSING: ABOUT THE DATA(INFO, SHAPE, SUMMARY STATS) & ASSUMPTIONS

	ORDERNUMBER	QUANTITYORDERED	PRICEEACH	ORDERLINENUMBER	SALES	ORDERDATE	DAYS_SINCE_LASTORDER	STATUS	PRODUCTLINE	MSRP
0	10107	30	95.70	2	2871.00	43155	828	Shipped	Motorcycles	95
1	10121	34	81.35	5	2765.90	43227	757	Shipped	Motorcycles	95
2	10134	41	94.74	2	3884.34	43282	703	Shipped	Motorcycles	95
3	10145	45	83.26	6	3746.70	43337	649	Shipped	Motorcycles	95
4	10168	36	96.66	1	3479.76	43401	586	Shipped	Motorcycles	95
5	10180	29	86.13	9	2497.77	43415	573	Shipped	Motorcycles	95
6	10188	48	114.84	1	5512.32	43422	567	Shipped	Motorcycles	95
7	10211	41	114.84	14	4708.44	43480	510	Shipped	Motorcycles	95
8	10223	37	107.18	1	3965.66	43516	475	Shipped	Motorcycles	95

THIS THE SECOND PART OF DATASET

MSRP	PRODUCTCODE	CUSTOMERNAME	PHONE	ADDRESSLINE1	CITY	POSTALCODE	COUNTRY	CONTACTLASTNAME	CONTACTFIRSTNAME	DEALSIZE
95	S10_1678	Land of Toys Inc.	2125557818	897 Long Airport Avenue	NYC	10022	USA	Yu	Kwai	Small
95	S10_1678	Reims Collectables	26.47.1555	59 rue de l'Abbaye	Reims	51100	France	Henriot	Paul	Small
95	S10_1678	Lyon Souveniers	+33 1 46 62 7555	27 rue du Colonel Pierre Avia	Paris	75508	France	Da Cunha	Daniel	Medium
95	S10_1678	Toys4GrownUps.com	6265557265	78934 Hillside Dr.	Pasadena	90003	USA	Young	Julie	Medium
95	S10_1678	Technics Stores Inc.	6505556809	9408 Furth Circle	Burlingame	94217	USA	Hirano	Juri	Medium
95	S10_1678	Daedalus Designs Imports	20.16.1555	184, chausse de Tournai	Lille	59000	France	Rance	Martine	Small
95	S10_1678	Herkku Gifts	+47 2267 3215	Drammen 121, PR 744 Sentrum	Bergen	N 5804	Norway	Oeztan	Veysel	Medium
95	S10_1678	Auto Canal Petit	(1) 47.55.6555	25, rue Lauriston	Paris	75016	France	Perrier	Dominique	Medium
95	S10_1678	Australian Collectors, Co.	03 9520 4555	636 St Kilda Road	Melbourne	3004	Australia	Ferguson	Peter	Medium

THE DATASET CONTAINS 2 FLOATS, 6 INTEGER AND 12 OBJECTS. THERE ARE IN TOTAL OF 2747 ROWS AND 20 COLUMNS. NO MISSING DATA FOUND OR NO DUPLICATES PRESENT HERE.

#	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

DESCRIPTIVE STATISTICS

	count	unique	top	freq	first	last	mean	std	min	25%	50%	75%	max
ORDERNUMBER	2747.0	NaN	NaN	NaN	NaT	NaT	10259.761558	91.877521	10100.0	10181.0	10264.0	10334.5	10425.0
QUANTITYORDERED	2747.0	NaN	NaN	NaN	NaT	NaT	35.103021	9.762135	6.0	27.0	35.0	43.0	97.0
PRICEEACH	2747.0	NaN	NaN	NaN	NaT	NaT	101.098951	42.042548	26.88	68.745	95.55	127.1	252.87
ORDERLINENUMBER	2747.0	NaN	NaN	NaN	NaT	NaT	6.491081	4.230544	1.0	3.0	6.0	9.0	18.0
SALES	2747.0	NaN	NaN	NaN	NaT	NaT	3553.047583	1838.953901	482.13	2204.35	3184.8	4503.095	14082.8
ORDERDATE	2747	246	2018-11-16 00:00:00	38	2018-01-08	2020-06-02	NaN	NaN	NaN	NaN	NaN	NaN	NaN
DAYS_SINCE_LASTORDER	2747.0	NaN	NaN	NaN	NaT	NaT	1757.085912	819.280576	42.0	1077.0	1761.0	2436.5	3562.0
STATUS	2747	6	Shipped	2541	NaT	NaT	NaN	NaN	NaN	NaN	NaN	NaN	NaN
PRODUCTLINE	2747	7	Classic Cars	949	NaT	NaT	NaN	NaN	NaN	NaN	NaN	NaN	NaN
MSRP	2747.0	NaN	NaN	NaN	NaT	NaT	100.691664	40.114802	33.0	68.0	99.0	124.0	214.0
PRODUCTCODE	2747	109	S18_3232	51	NaT	NaT	NaN	NaN	NaN	NaN	NaN	NaN	NaN
CUSTOMERNAME	2747	89	Euro Shopping Channel	259	NaT	NaT	NaN	NaN	NaN	NaN	NaN	NaN	NaN
PHONE	2747	88	(91) 555 94 44	259	NaT	NaT	NaN	NaN	NaN	NaN	NaN	NaN	NaN
ADDRESSLINE1	2747	89	C/ Moralzarzal, 86	259	NaT	NaT	NaN	NaN	NaN	NaN	NaN	NaN	NaN
CITY	2747	71	Madrid	304	NaT	NaT	NaN	NaN	NaN	NaN	NaN	NaN	NaN

Assumptions and Findings:

- Order Trends: The average order number is around 10260, indicating a significant volume of orders processed. Orders range from 10100 to 10425, suggesting a wide range of transactions.

- Product Demand: The average quantity ordered is approximately 35 units per order, with a range from 6 to 97 units. Understanding the demand for different products based on quantity ordered can help in inventory management.

- Pricing Strategy: The average price for each item is around 101.10, with prices ranging from 26.88 to 252.87.Analysis of price variations can inform pricing strategies for different product lines.

- Order Line Complexity: The average order line number is 6.49, indicating that orders typically consist of multiple lines. Analysing the complexity of order lines can help optimize order fulfilment processes.

- Sales Performance: The average sales amount is approximately 3553.05, with a wide range of sales values (from 482.13 to 14082.8).Understanding sales performance and identifying top-performing orders or products can guide sales strategies.

Assumptions and Findings:

- Order Timing: The average number of days since the last order is around 1757.09, suggesting a relatively steady flow of orders.

- Order Status: The dataset includes various order statuses, with Shipped being the most common (appearing 2541 times).Analysing order statuses can provide insights into order processing efficiency and customer satisfaction.

- Product Line Popularity: Classic Cars is the most frequent product line (appearing 949 times), indicating its popularity among customers. Identifying popular product lines can guide marketing and inventory management decisions.

- MSRP Analysis: The average Manufacturer's Suggested Retail Price (MSRP) is approximately 100.69. Understanding the relationship between MSRP and actual sales prices can help assess pricing strategies.

- Deal Size: Medium deals are the most common (appearing 1349 times).Analysing deal sizes and their impact on sales can guide sales and marketing efforts.

LET'S PERFORM EDA (EXPLORATORY DATA ANALYSIS). THIS WILL HELP US TO EXAMINE THE DATASET TO SUMMARIZE THE MAIN CHARACTERISTICS AND IDENTIFY PATTERNS UNDERCOVERING UNDERLYING STRUCTURES, DETECT OUTLIERS AND VISUALIZE RELATIONSHIPS BETWEEN VARIABLES.
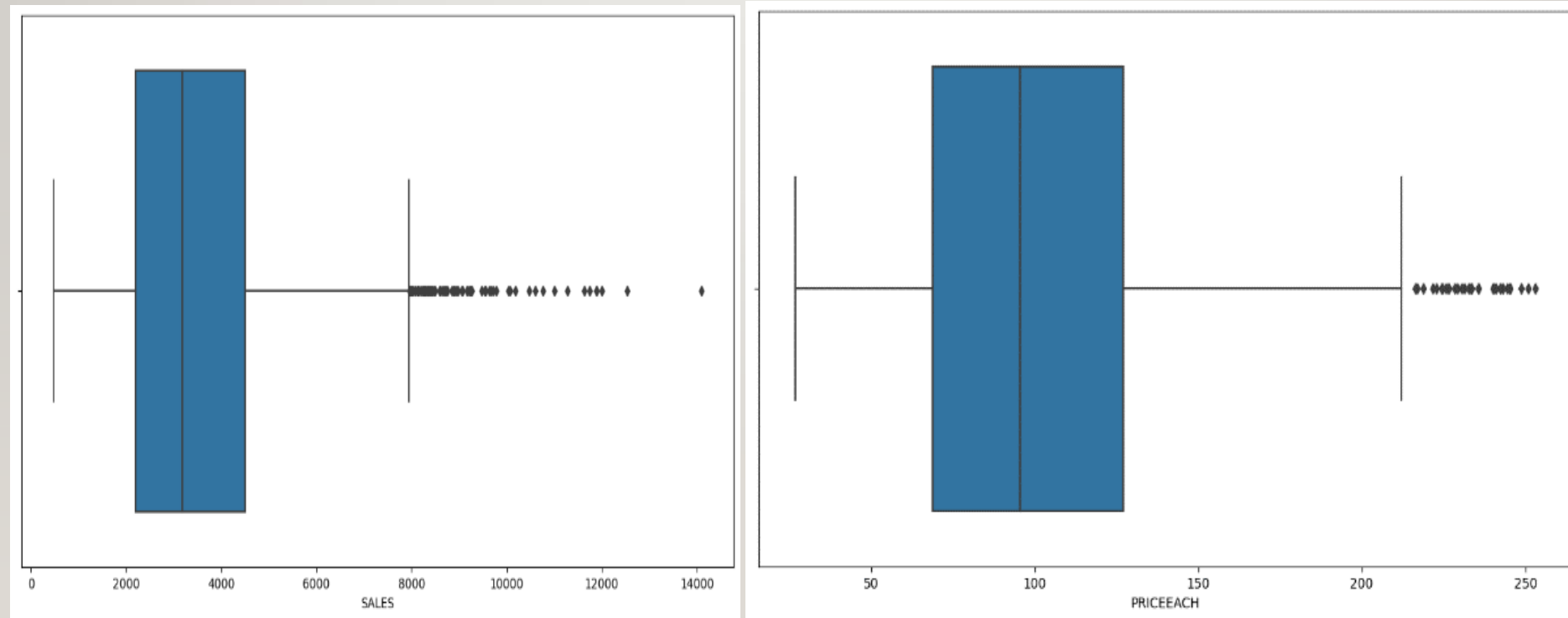
- Univariate Analysis:
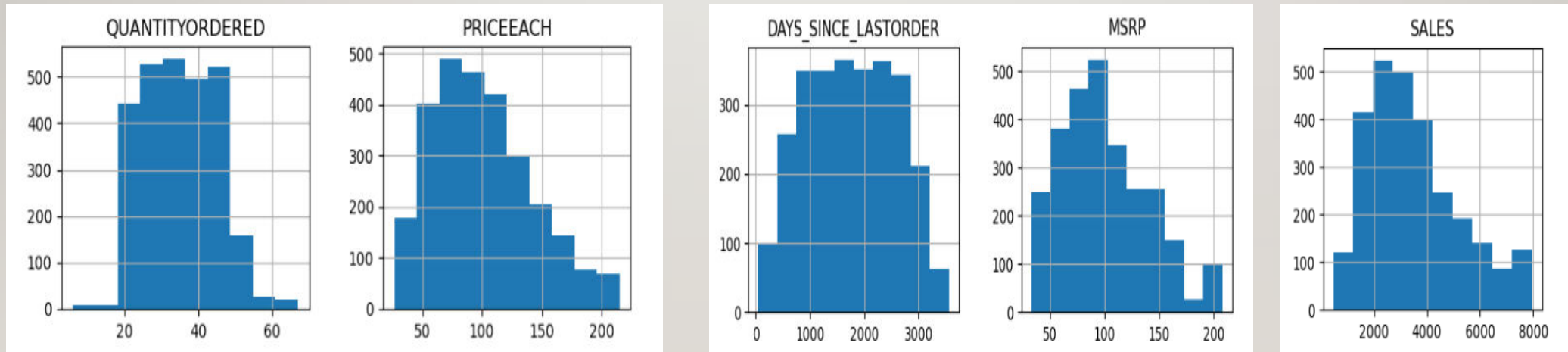
AS WE SEE THE DATA IS RIGHT SKEWED FOR VARIABLES [QUANTITY ORDERED, PRICE EACH, SALES], THERE CAN BE A POSSIBLE OUTCOME OF HUGE DELIVERY AS PER THE DEMAND ON THE PRODUCT, SO WE SEE A RAISE IN THE OUTLIERS FOR THESE VARIABLES HOWEVER WE WILL STILL TREAT THEM FOR OUR ANALYSIS. HERE IN NEXT IMAGE, WE WILL SEE THE POSSIBLE OUTLIERS IN THESE VARIABLES.
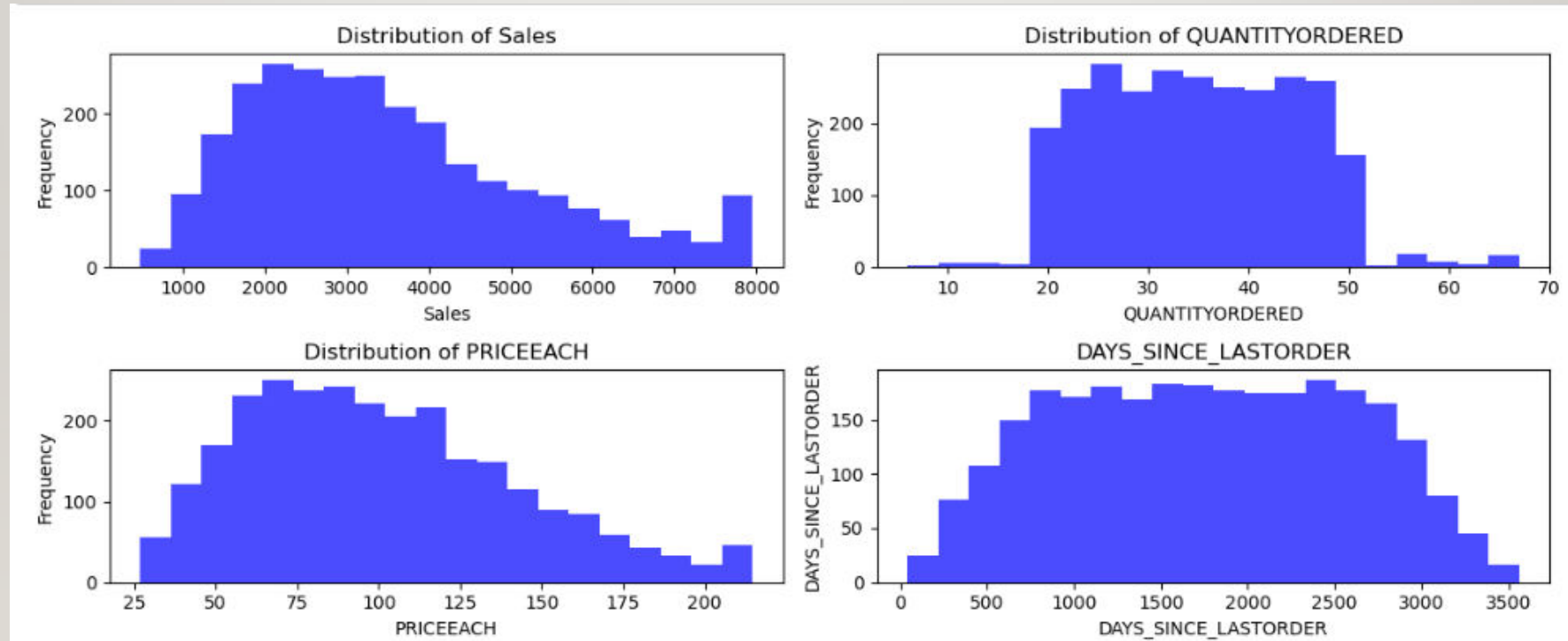
OUTLIERS:
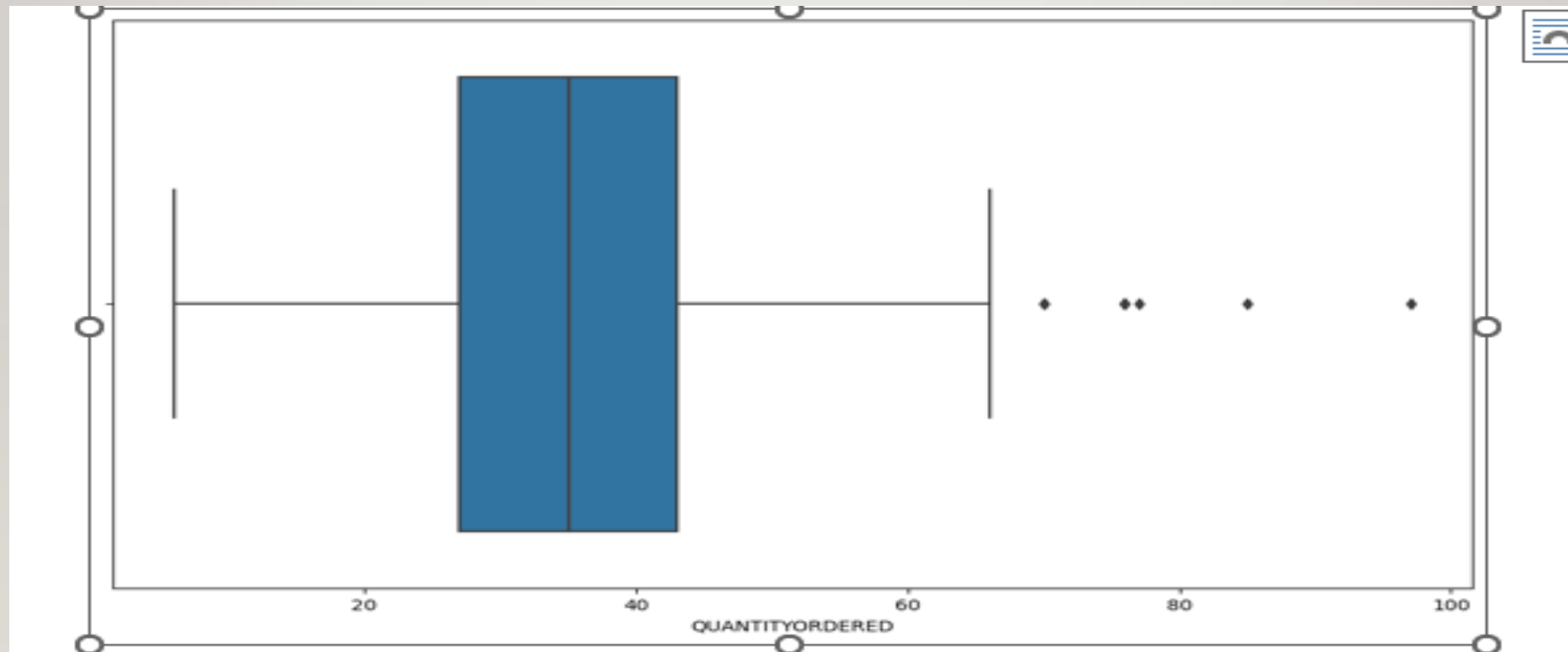
OUTLIERS TREATED:
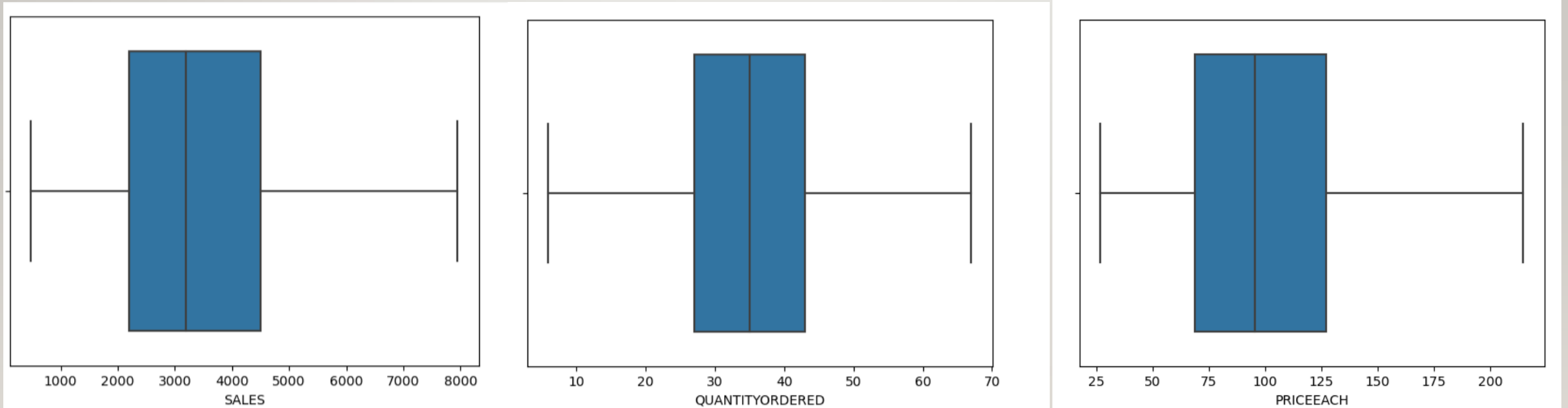
WE SEE HERE THE DISTRIBUTION OF SALES, QUANTITY ORDERED PRICE EACH, DAYS'S SINCE LAST ORDER, DATA HAS A NORMAL DISTRIBUTION.
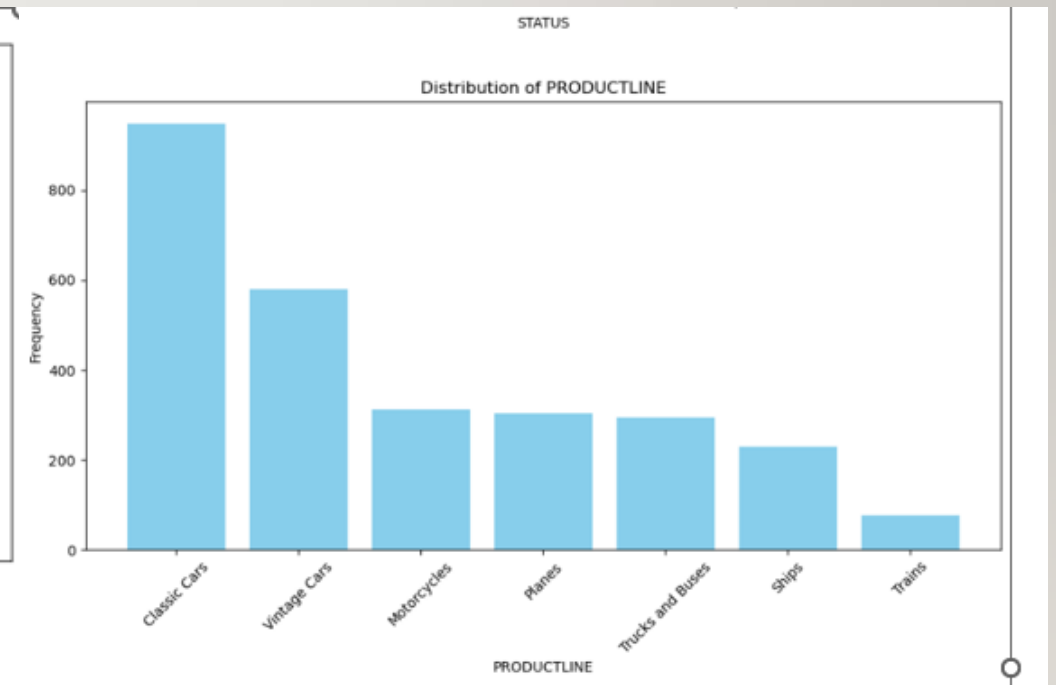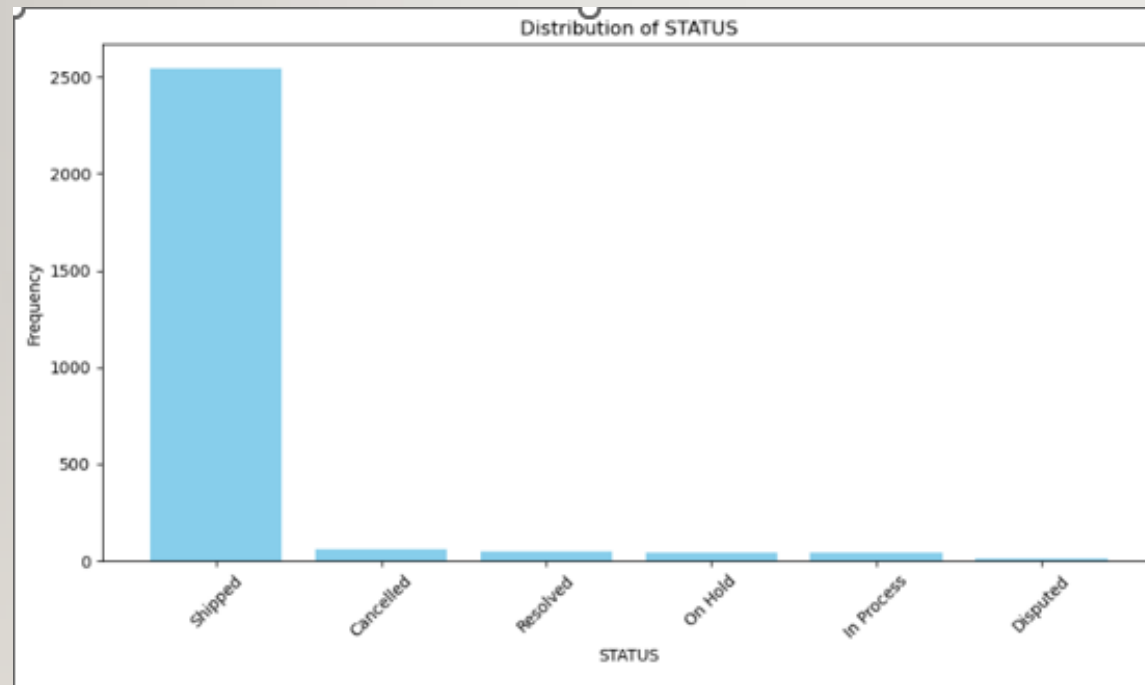
THIS IMAGE SHOWS WAS A DISTRIBUTION OF STATUS VARIABLE, SHIPPED IS THE MAXIMUM FREQUENCY, FOLLOWED BY THE DESCENDING ORDER IN CANCELLED, RESOLVED, ON-HOLD, INPROGRESS, DISPUTED.
DISTRIBUTION FREQUENCY FOR PRODUCT-LINE SHOWS CLASSIC CARS HAS THE MAXIMUM, FOLLOWED BY VINTAGE CARS, MOTORCYCLES, PLANES, TRUCKS& BUSES, SHIPS, TRAINS

DISTRIBUTION FREQUENCY FOR DEAL SIZE IS MEDIUM, SMALL AND LARGE
DISTRIBUTION FREQUENCY FOR COUNTRY IS USA HAS THE MAXIMUM FREQUENCY AND
IRELAND HAS THE LOWEST FREQUENCY
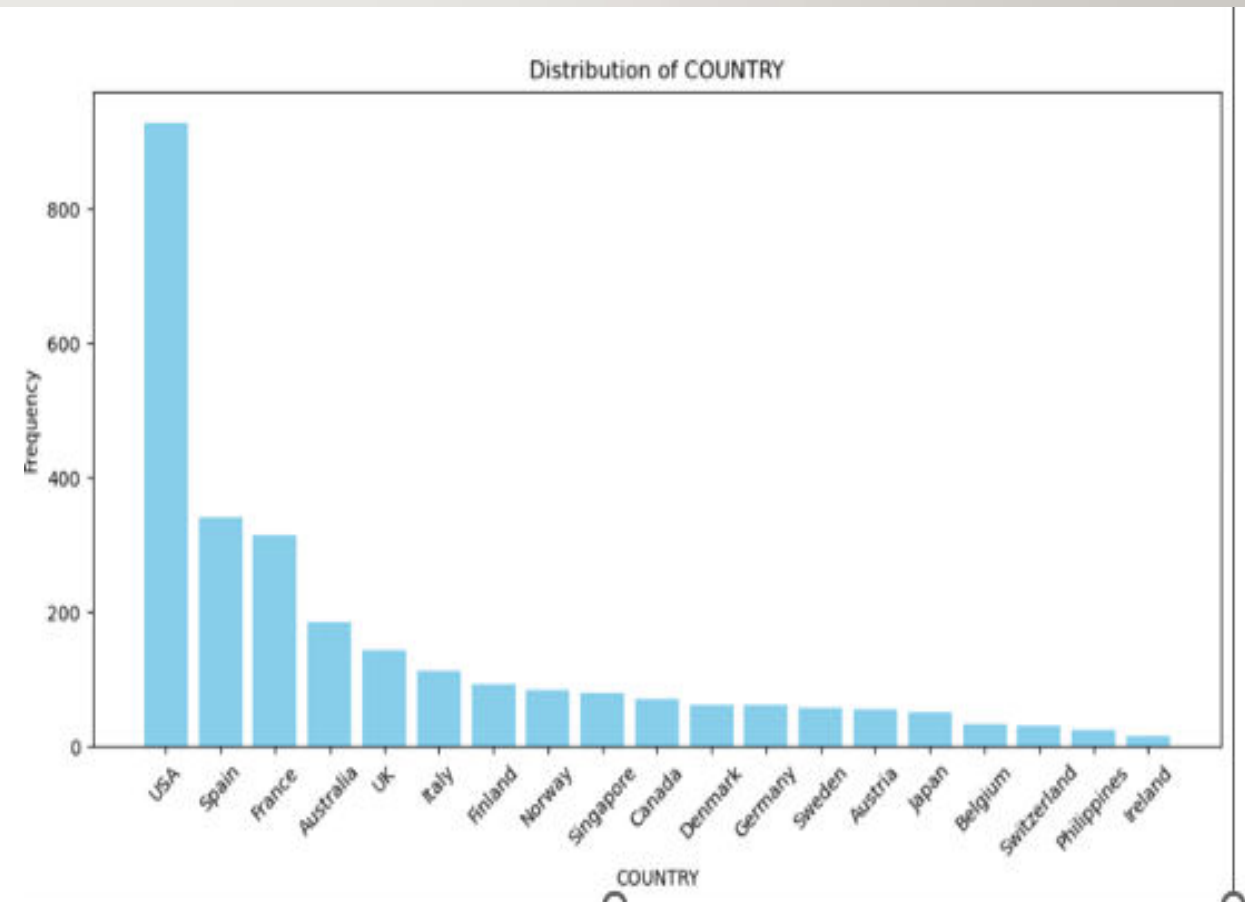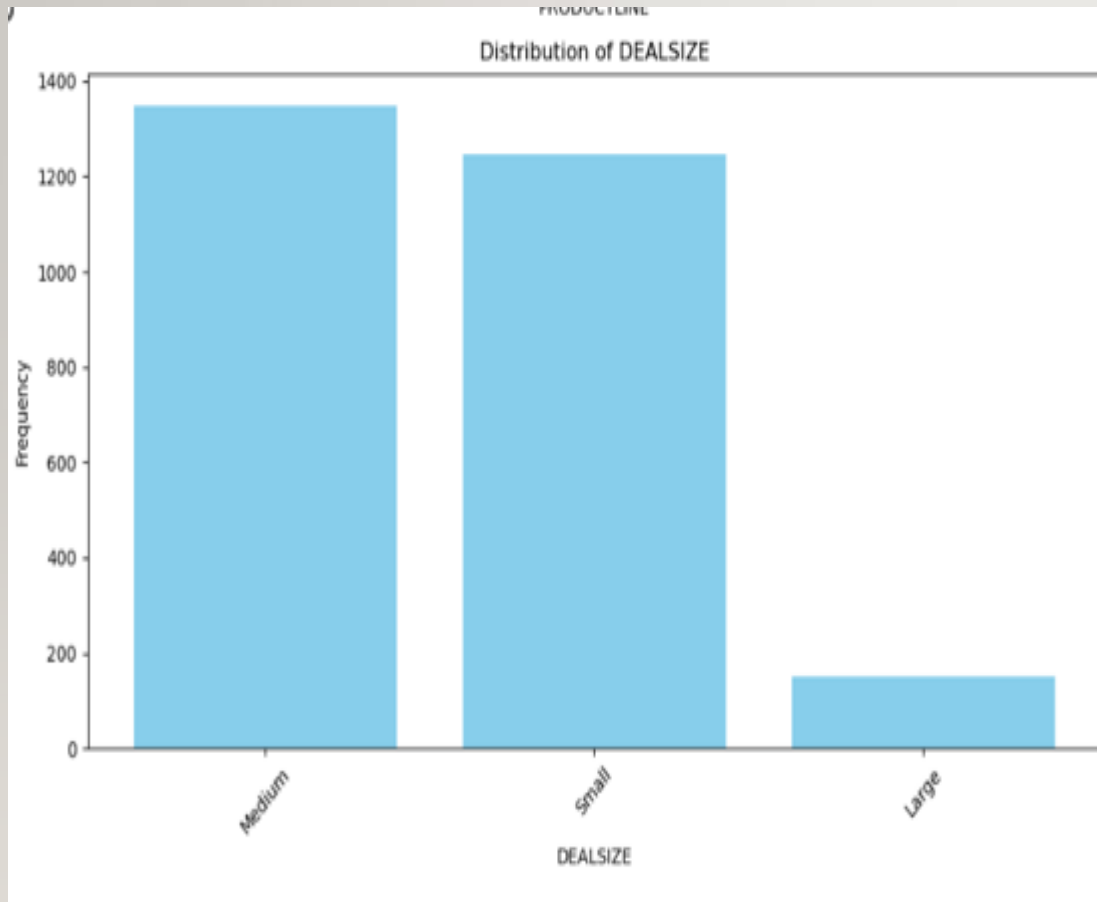
VALUE COUNTS FOR PRODUCT-LINE, DEAL-SIZE, COUNTRY & STATUS

```
Value Counts for PRODUCTLINE:
Classic Cars          949
Vintage Cars          579
Motorcycles           313
Planes                304
Trucks and Buses      295
Ships                 230
Trains                 77
```

```
Value Counts for DEALSIZE:
Medium     1349
Small      1246
Large       152
```

```
Value Counts for COUNTR
USA           928
Spain         342
France        314
Australia     185
UK            144
Italy         113
Finland        92
Norway         85
Singapore      79
Canada         70
Denmark        63
Germany        62
Sweden         57
Austria        55
Japan          52
Belgium        33
Switzerland    31
Philippines    26
Ireland        16
```
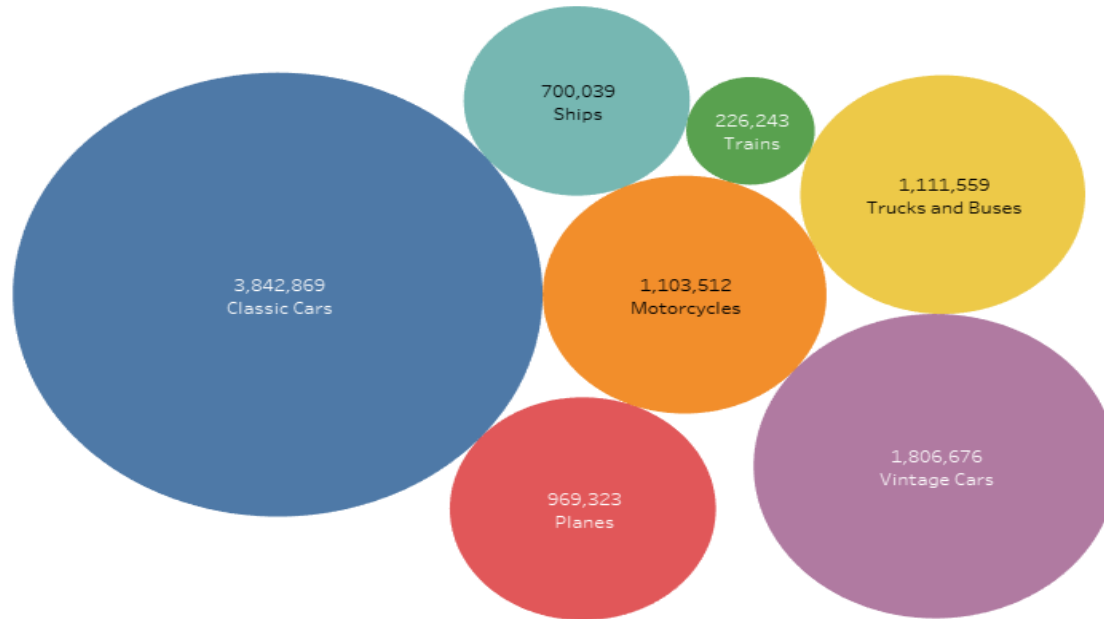
```
Value Counts for STATUS:
Shipped      2541
Cancelled      60
Resolved       47
On Hold        44
In Process     41
Disputed       14
```
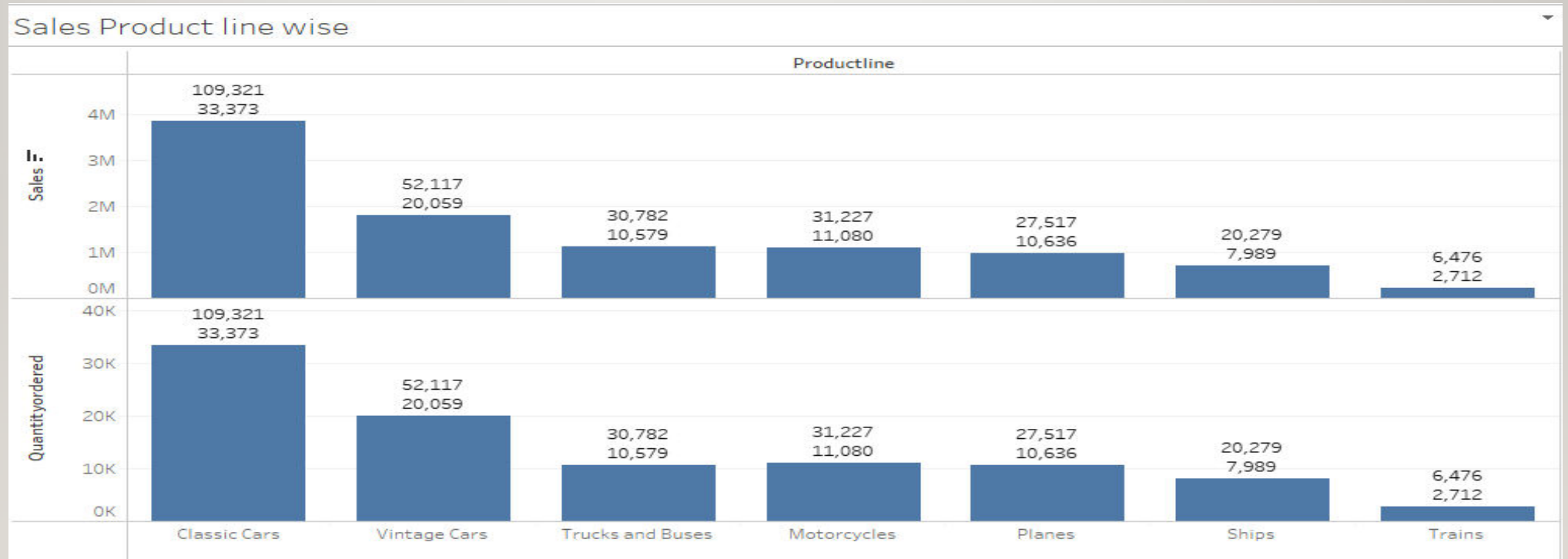
USA HAS THE MOST SALES

Deal size for products

Productline	
3,842,869 Classic Cars	
700,039 Ships	
226,243 Trains	
1,111,559 Trucks and Buses	
1,103,512 Motorcycles	
969,323 Planes	
1,806,676 Vintage Cars	

Productline
- Classic Cars
- Motorcycles
- Planes
- Ships
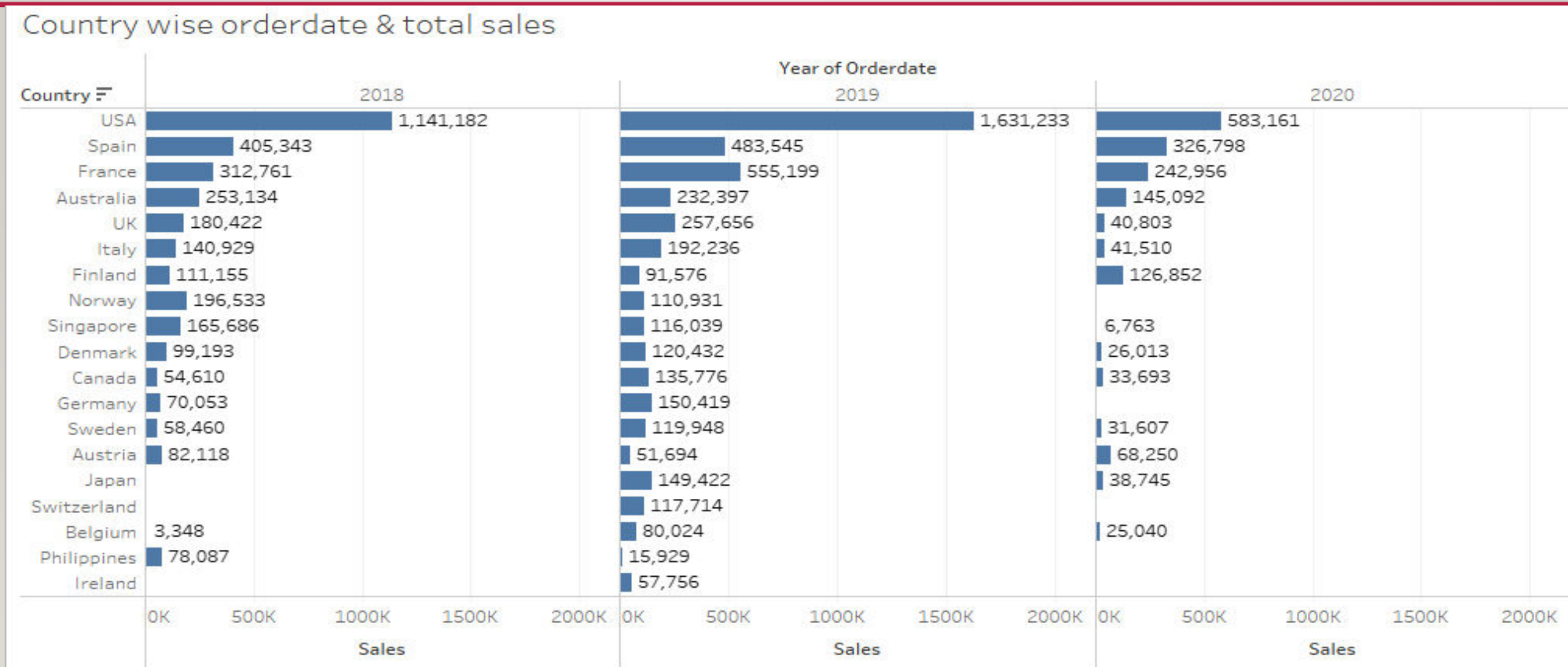- Trains
- Trucks and Buses
- Vintage Cars
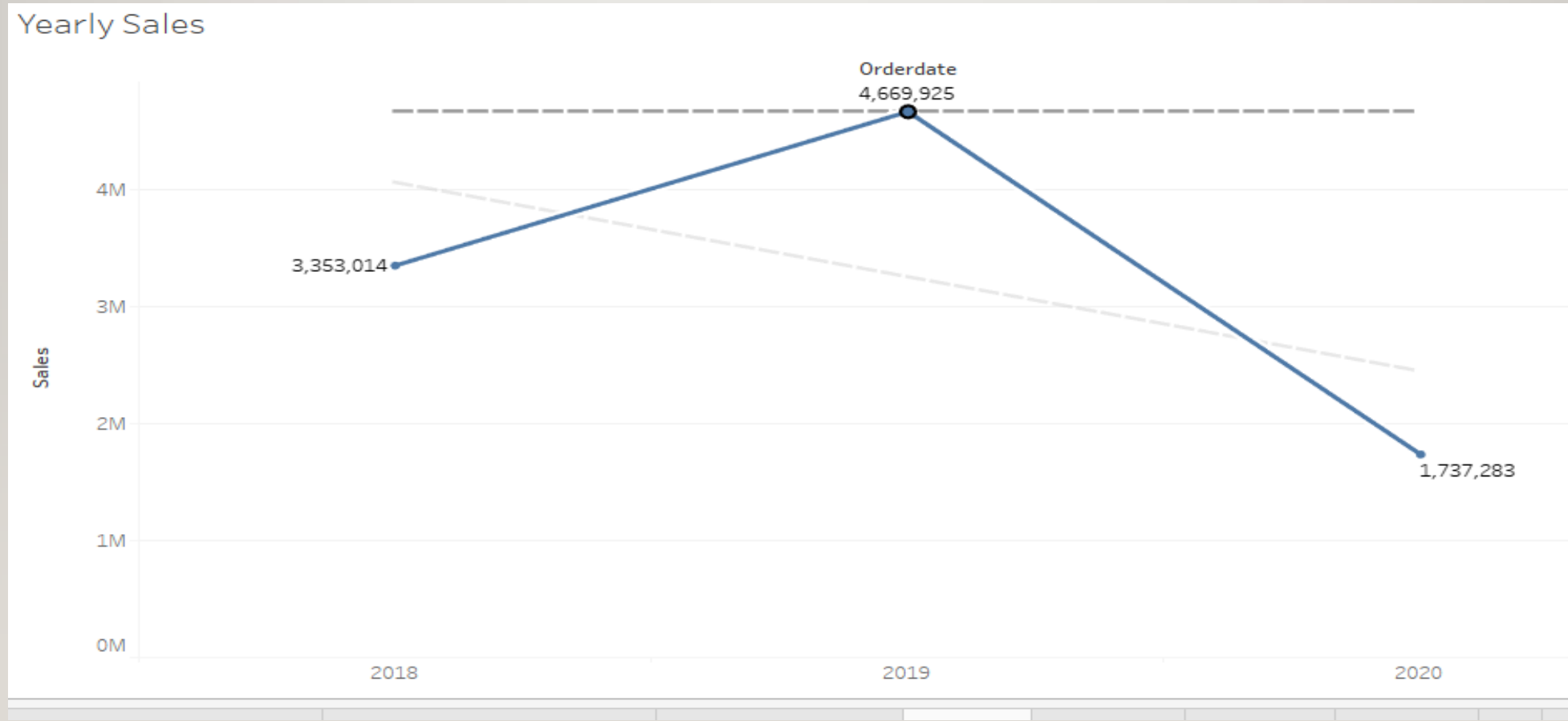
PRICE EACH DATA FOR PRODUCT LINE AND QUANTITY ORDERED

NUMBER OF DAY SINCE LAST ORDER FOR TOP 10 CUSTOMERS FOR MOST DAYS:

Customername	Count of Days Sin..	Avg. Days Since L..
Enaco Distributors	23	2,484
Gift Ideas Corp.	19	2,420
Royal Canadian Collectabl..	26	2,367
Mini Creations Ltd.	35	2,329
Rovelli Gifts	48	2,283
Auto-Moto Classics Inc.	8	2,282
CAF Imports	13	Customer
Alpha Cognac	20	Avg. Days
Bavarian Collectables Imp..	14	2,239
Collectable Mini Designs C..	25	2,182
giftsbymail.co.uk	26	2,181

TOP COUNTRIES WITH MOST SALES YEARLY DATA

Country wise orderdate & total sales

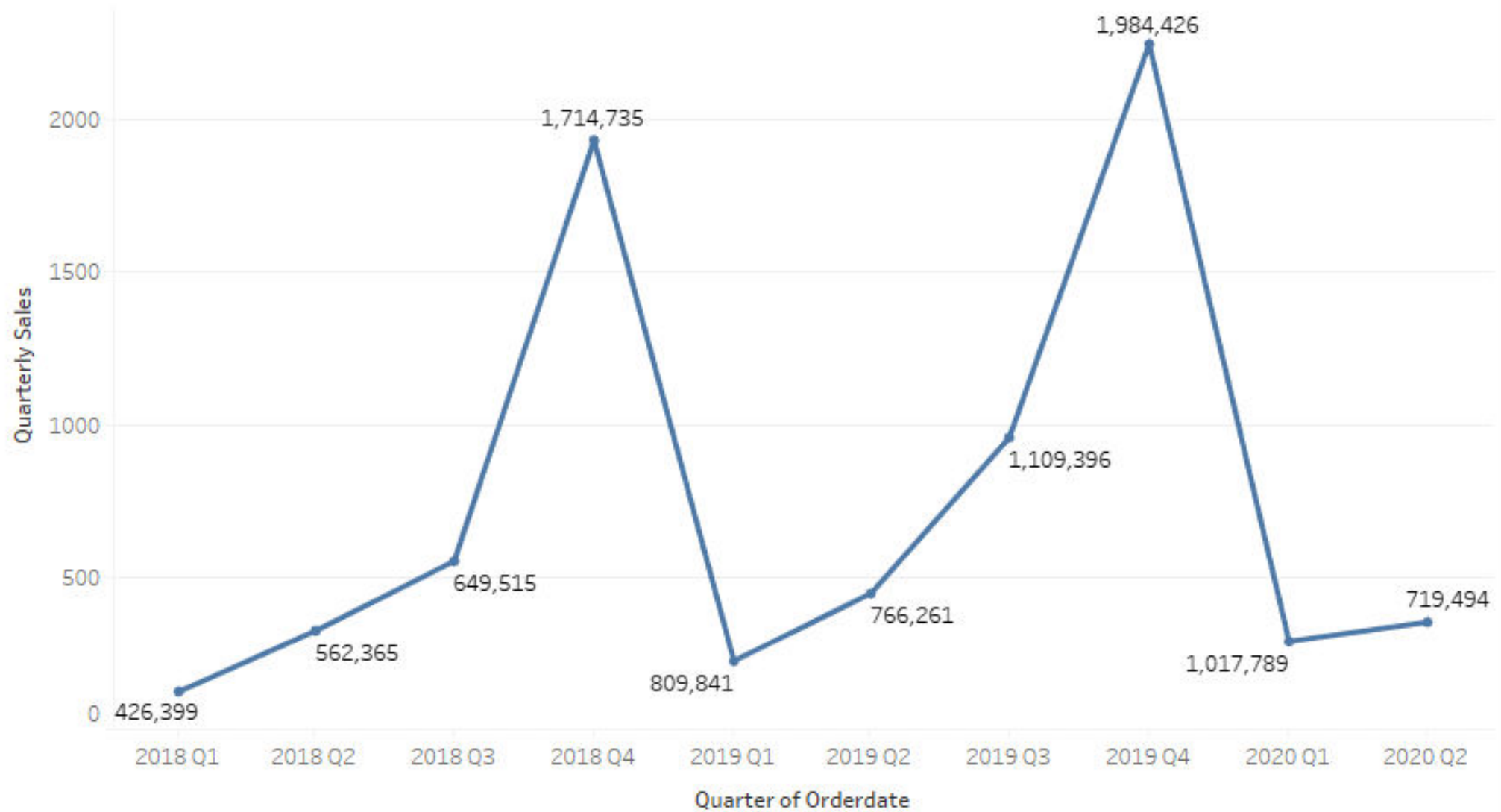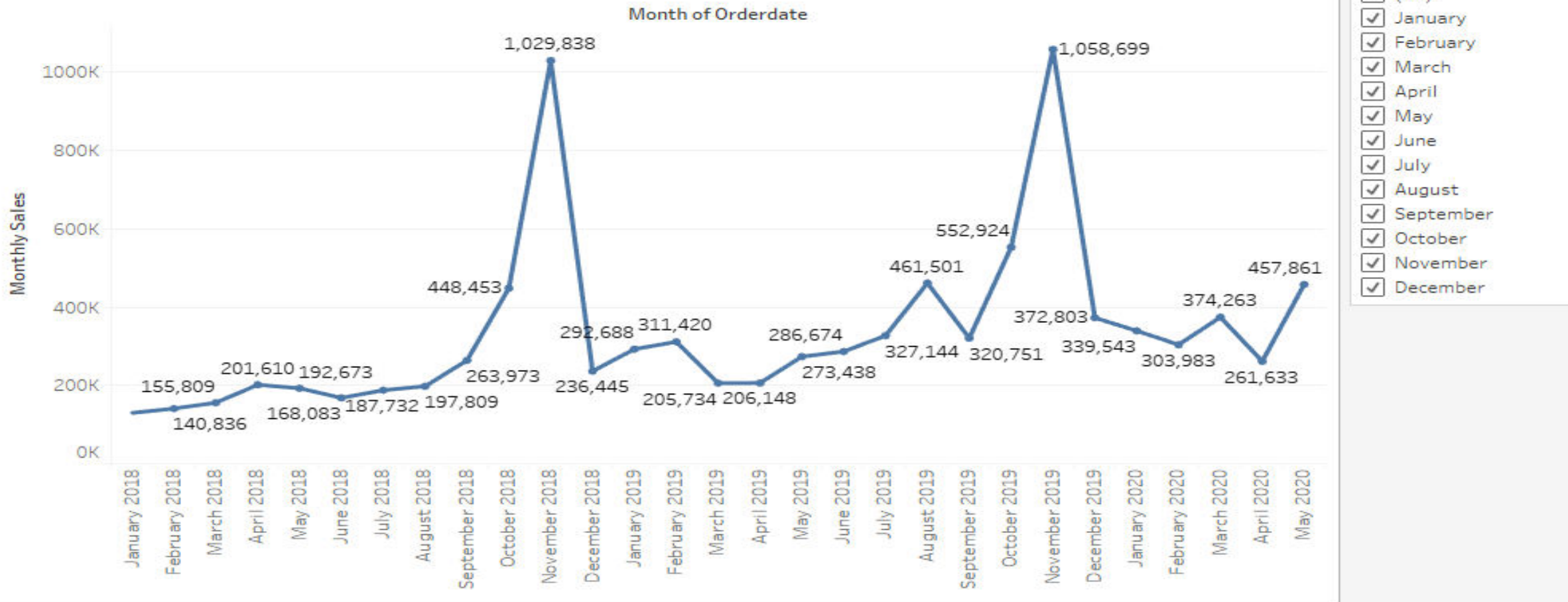| Country	2018	2019	2020
USA	1,141,182	1,631,233	583,161
Spain	405,343	483,545	326,798
France	312,761	555,199	242,956
Australia	253,134	232,397	145,092
UK	180,422	257,656	40,803
Italy	140,929	192,236	41,510
Finland	111,155	91,576	126,852
Norway	196,533	110,931	
Singapore	165,686	116,039	6,763
Denmark	99,193	120,432	26,013
Canada	54,610	135,776	33,693
Germany	70,053	150,419	
Sweden	58,460	119,948	31,607
Austria	82,118	51,694	68,250
Japan		149,422	38,745
Switzerland		117,714	
Belgium	3,348	80,024	25,040
Philippines	78,087	15,929	
Ireland		57,756	

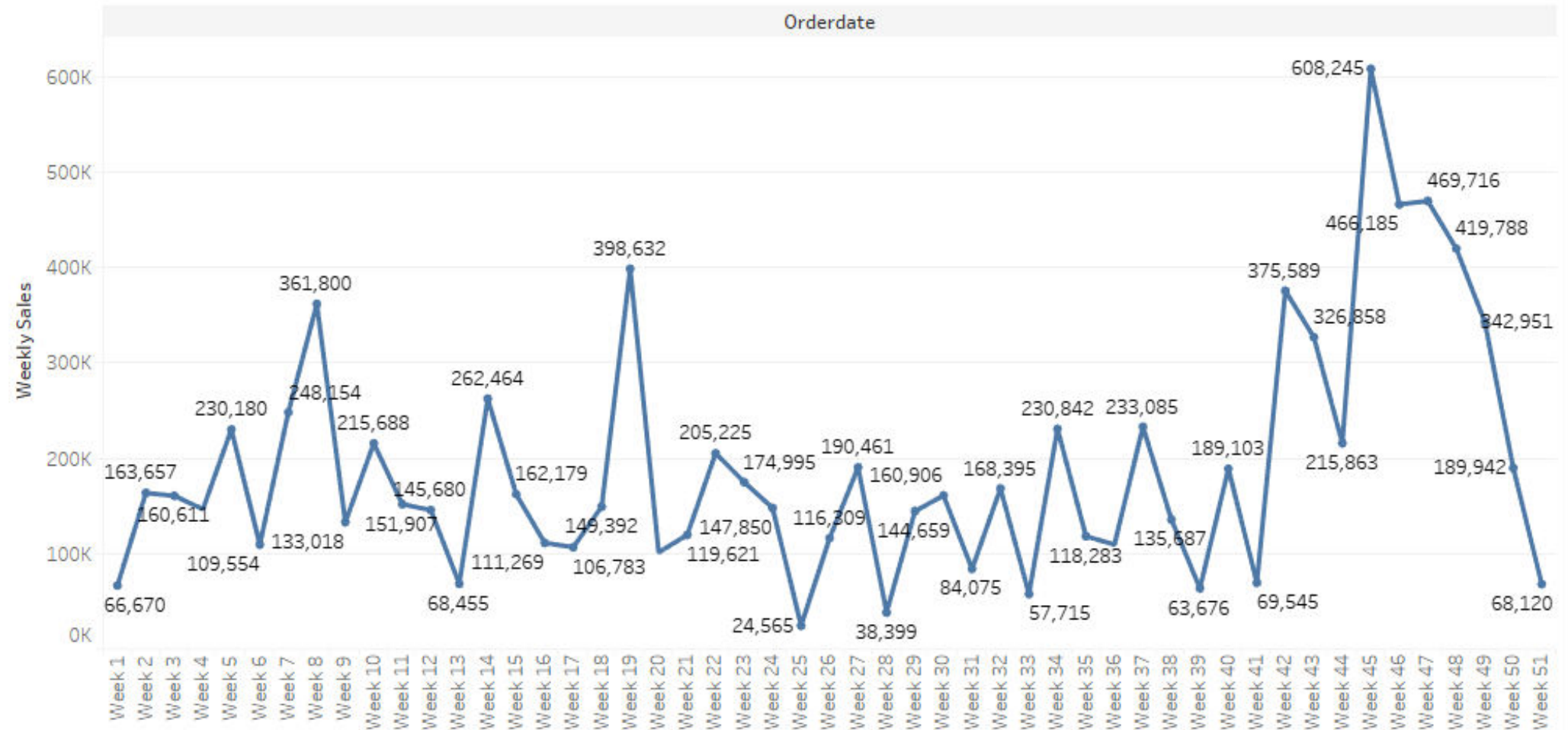# THIS GRAPH REPRESENTS SALES FREQUENCY AS 2019 WAS A TOP YEAR

SALES AS BEEN CONSTANT, HOWEVER THERE HAVE BEEN FEW INCONSISTENCIES, BUT WE SEE A HIGH RISE FROM SEP2018 TO NOV 218, NOV 2019, ALSO THERE IS A WEEKLY BREAK UP OF SALES WITHIN THE SAME PATTERN. AS WE SEE MAXIMUM SALES IN SEP, OCT AND NOV MONTHS

BIVARIATE ANALYSIS:
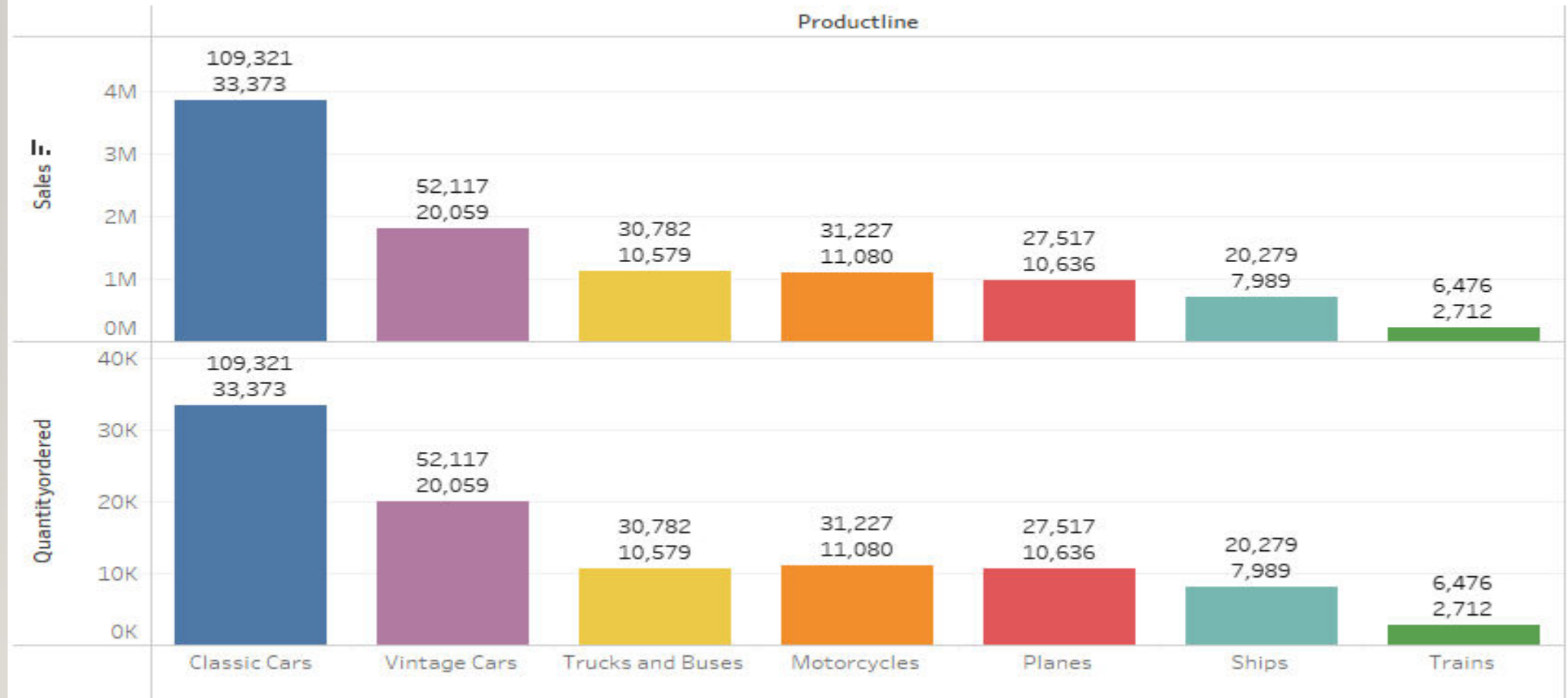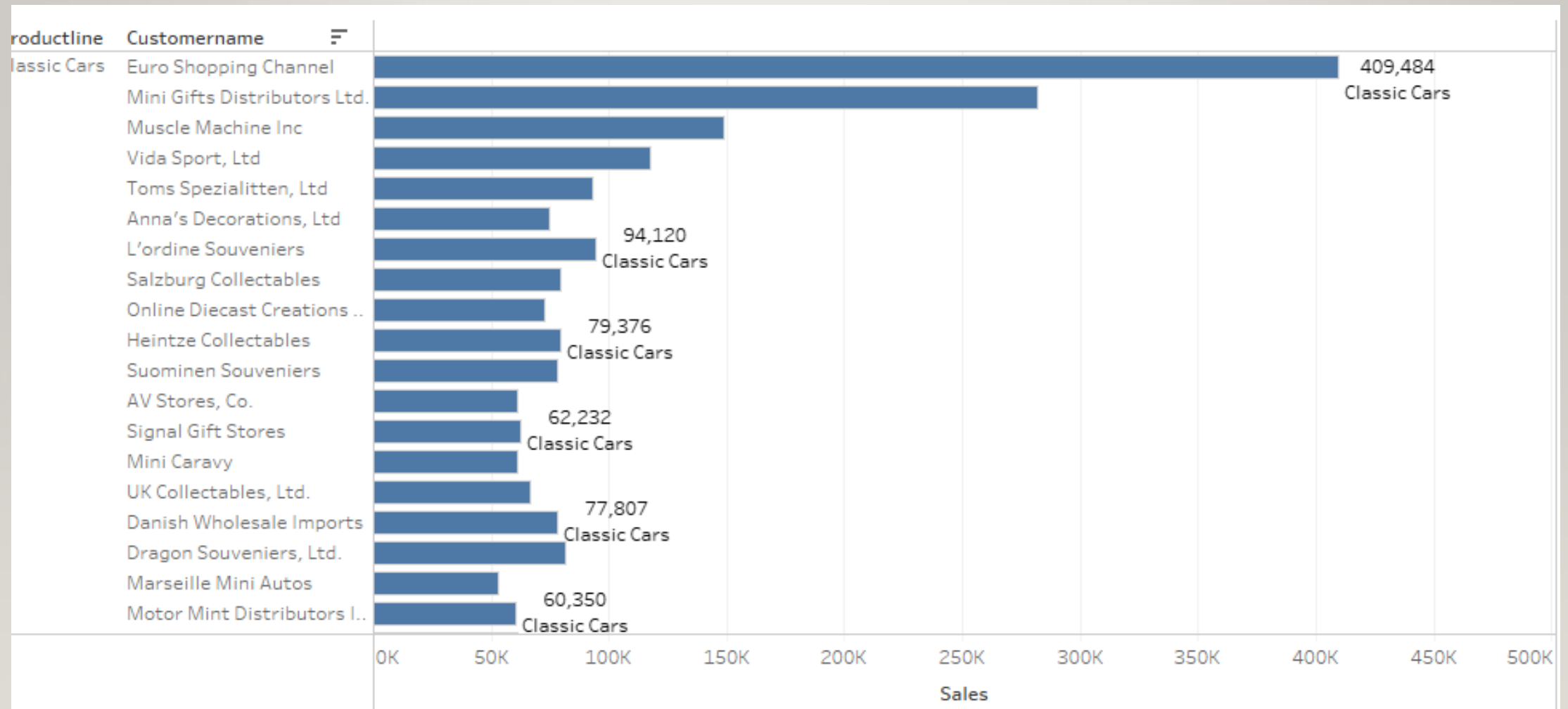

Sales Product line wise

CUSTOMER PRODUCT-LINE SALES

Deal Size customer wise

SUM(Sales)

3,987 — 580,216

Euro Shopping Channel Medium

Euro Shopping Channel Small

Euro

Mini Gifts Distributors Ltd. Medium

La Rochelle Gifts

La

Dragon

Land of Toys

AV Stores,

AV

Rovelli Gifts

Reims

Online Diecast

UK

Vida Sport,

Baane Mini

Toys of
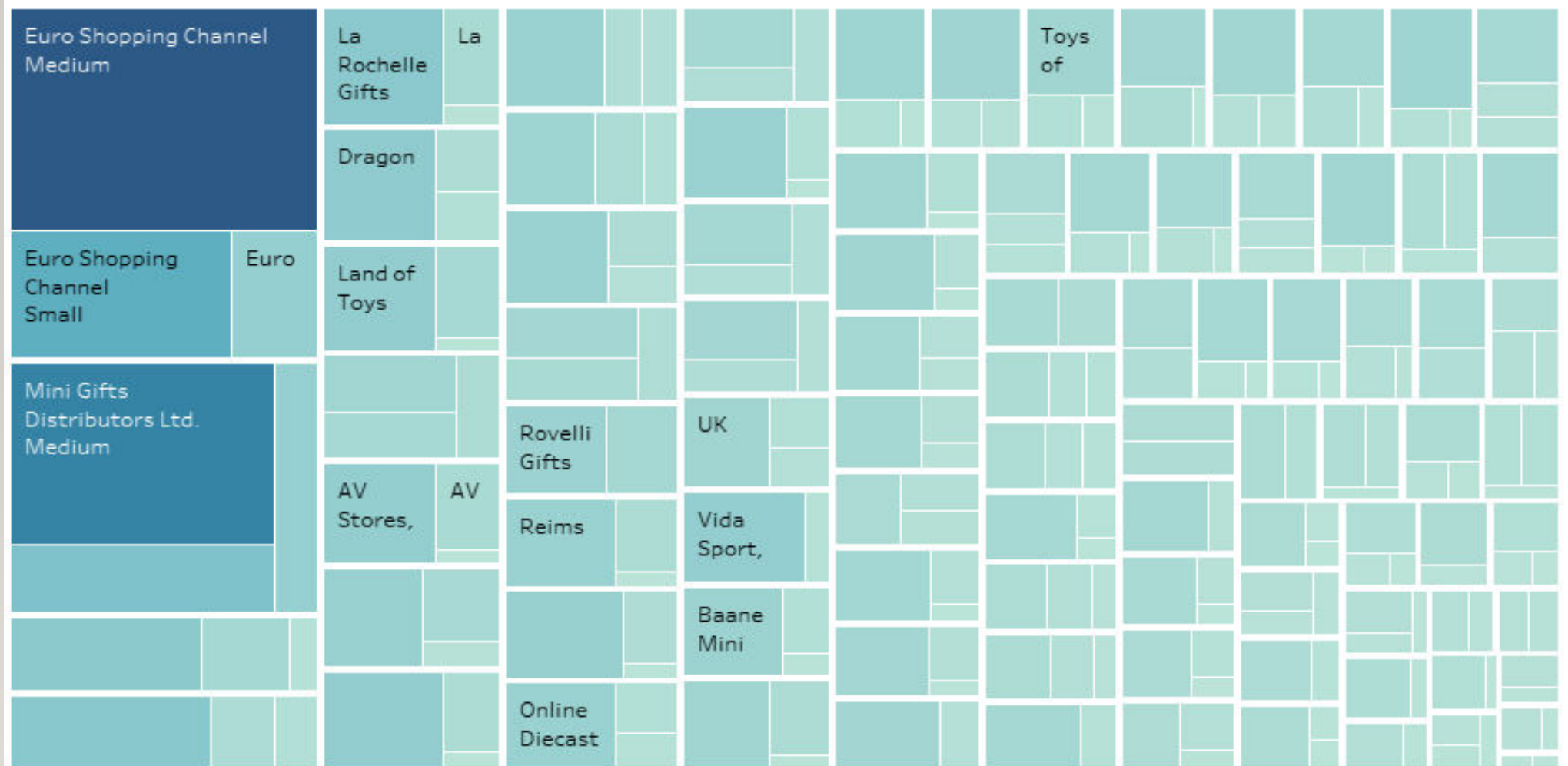
COUNTRIES SALES: USA IS TOPPING THE DATA WITH MAXIMUM SALES AND IRELAND THE LEAST. THERE IS A CLEAR EXPLANATION AS PER THE YEAR ORDER DATE FOR CONSECUTIVE 3 YEARS:

sales country wise

Quantity Ordered Product wise acroos countries

CLASSIC CARS HAS THE MAXIMUM PRODUCT POPULARITY.
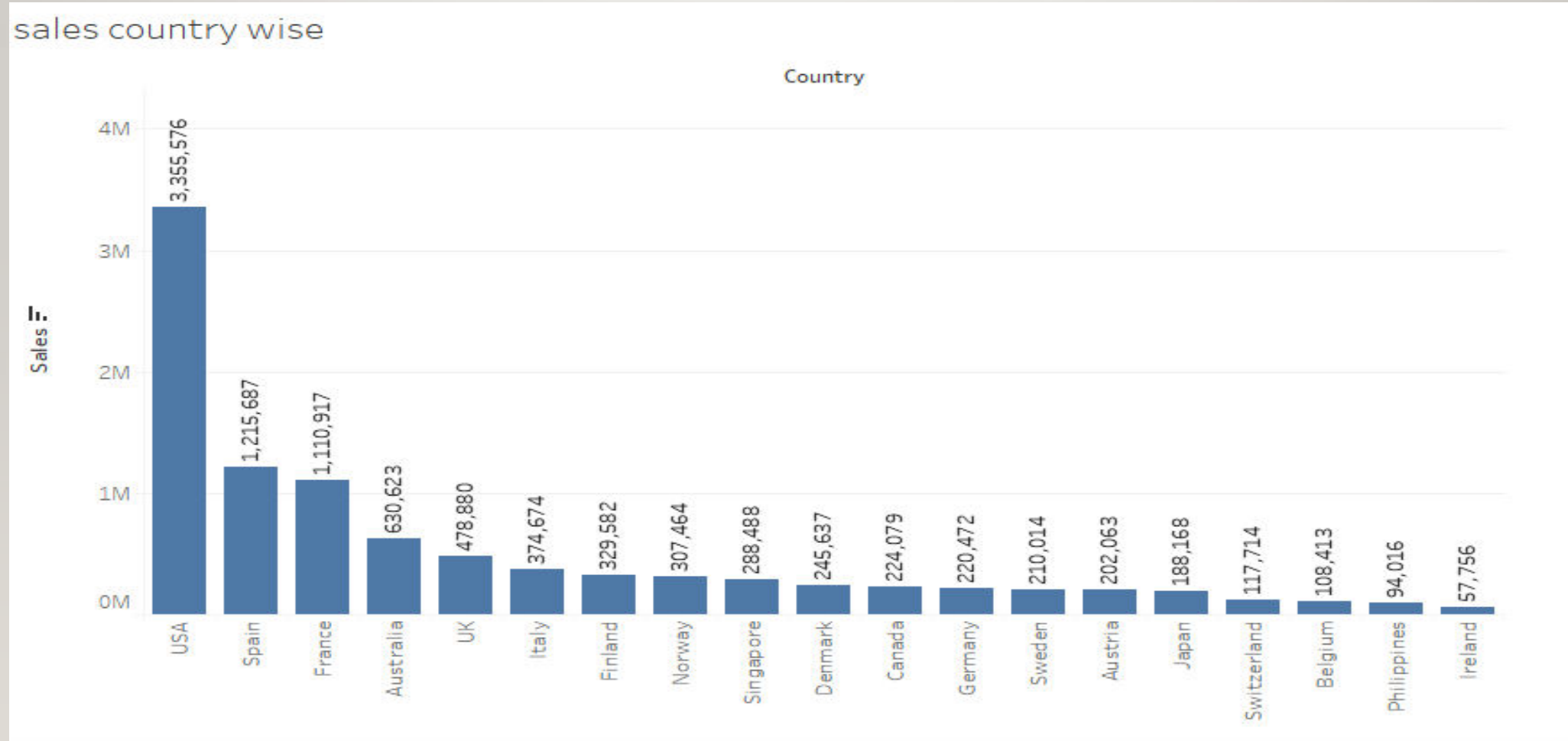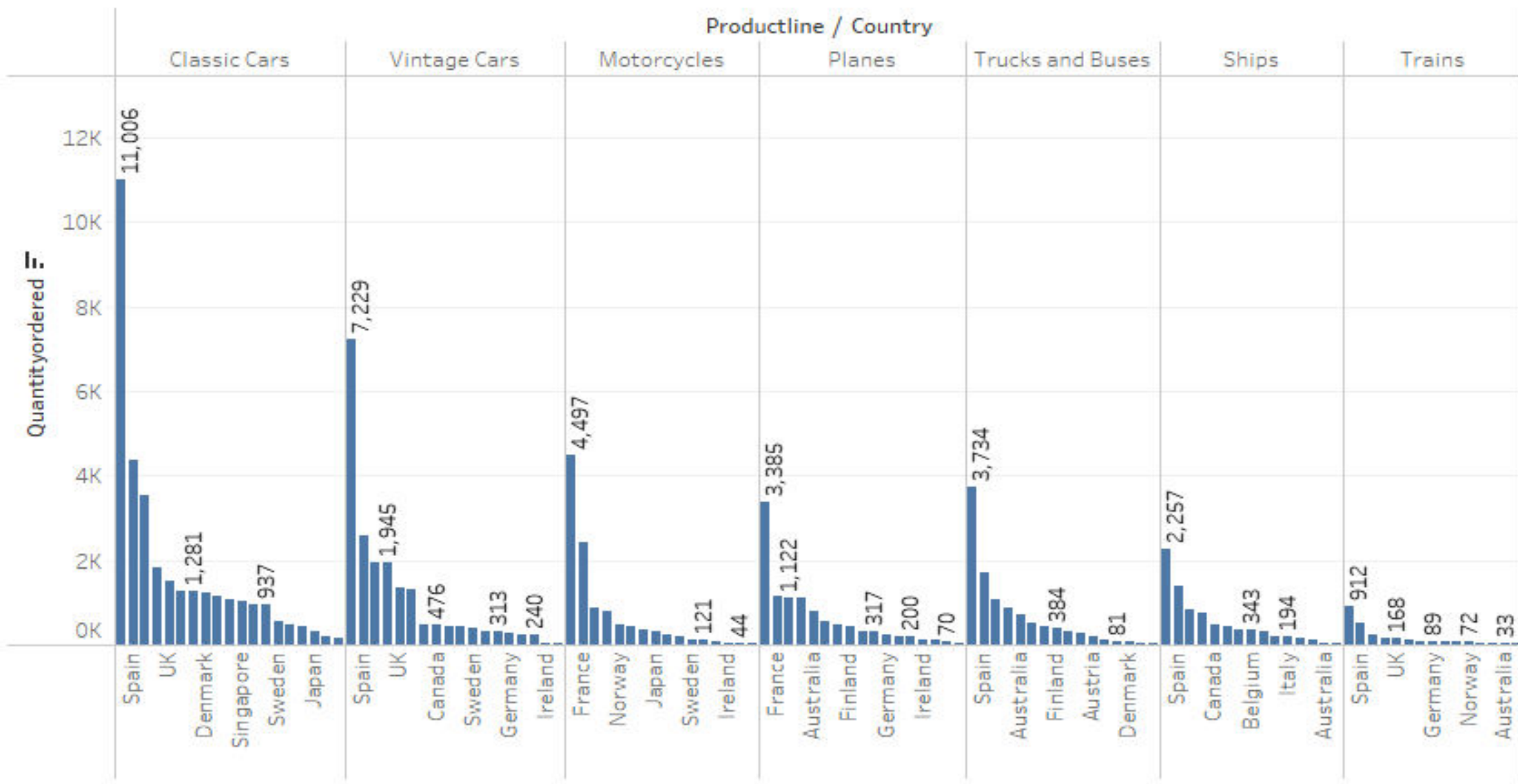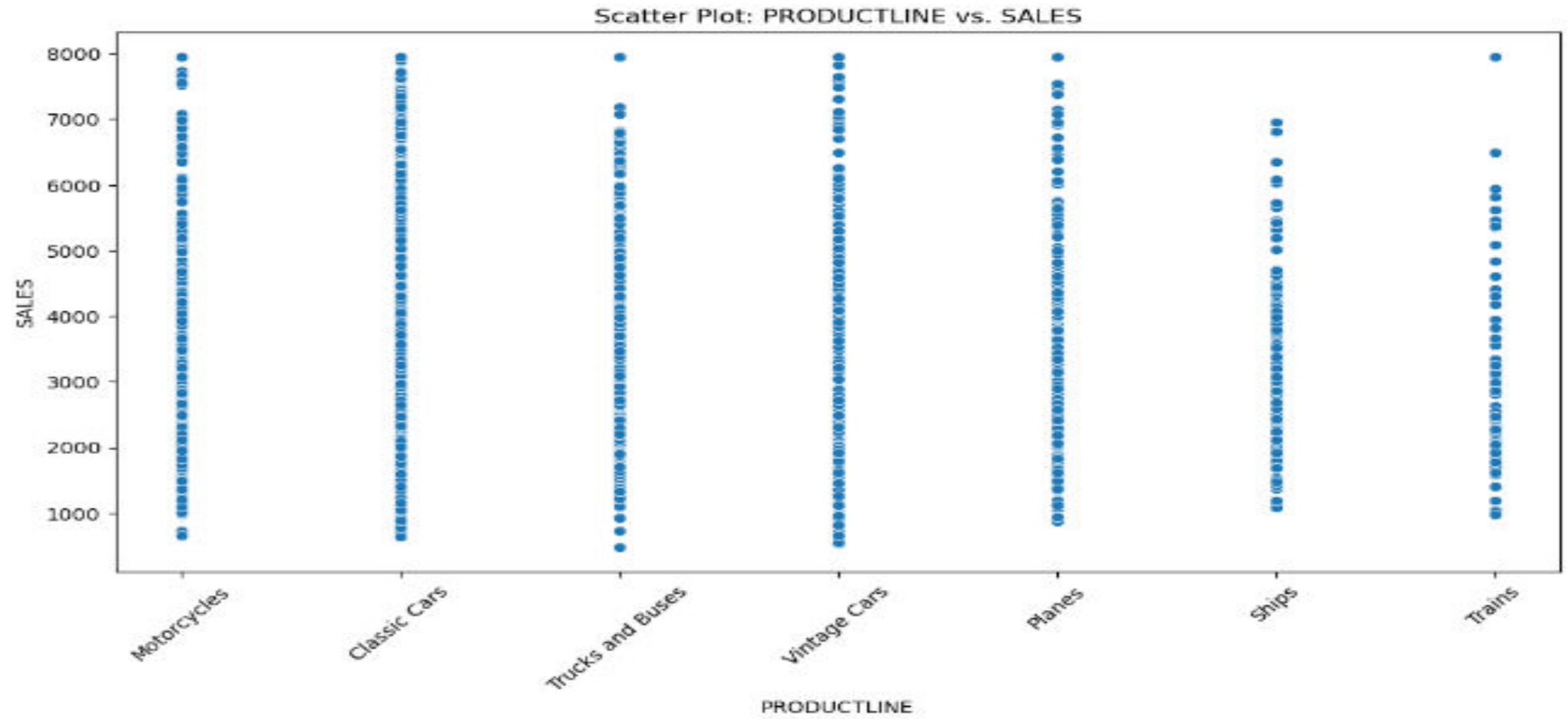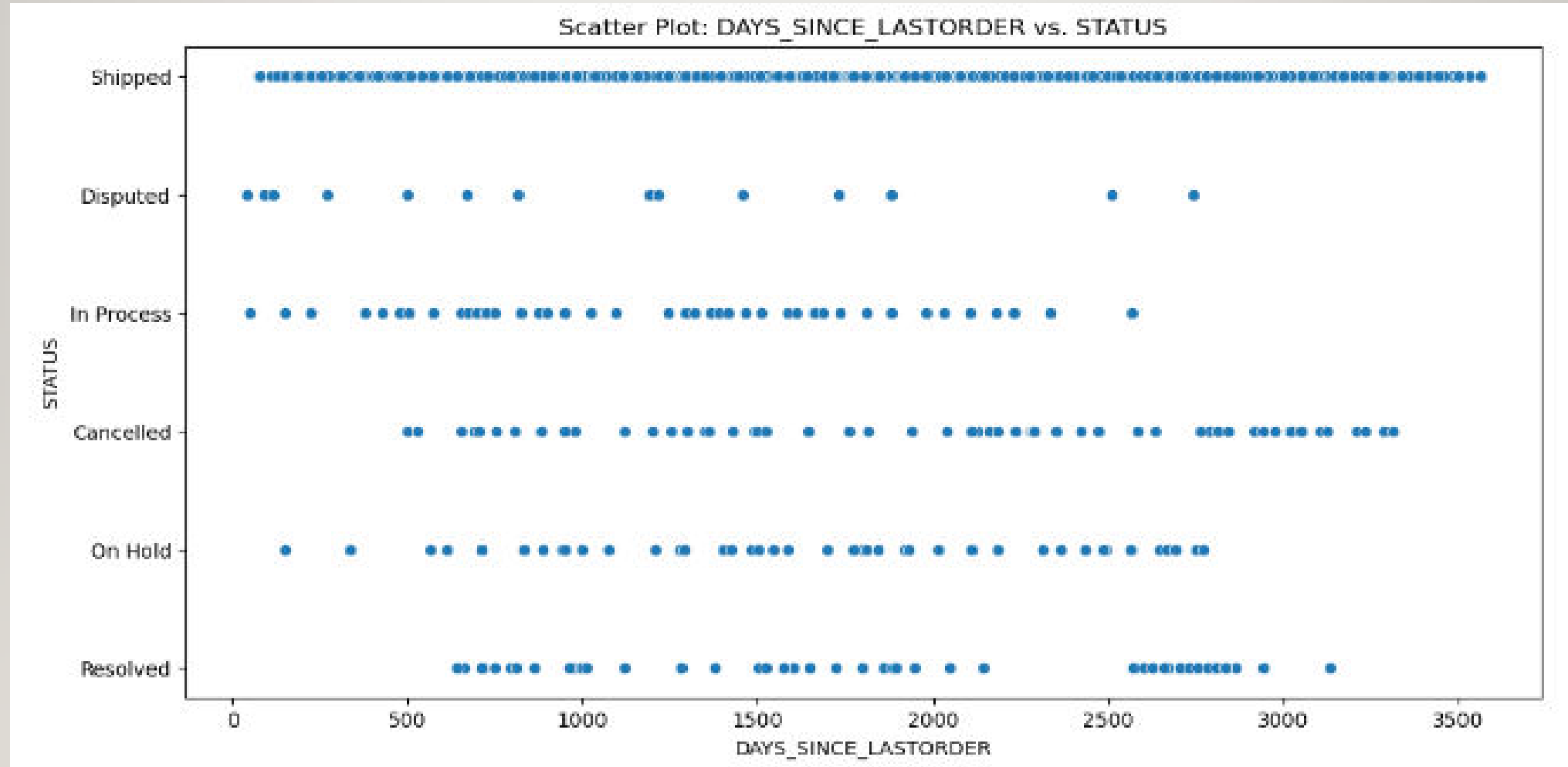

Scatter Plot: PRODUCTLINE vs. SALES

SHIPPED HAS THE MOST STATUS

Scatter Plot: DAYS_SINCE_LASTORDER vs. STATUS

	ORDERNUMBER	QUANTITYORDERED	PRICEEACH	ORDERLINENUMBER	SALES	ORDERDATE	DAYS_SINCE_LASTORDER	MSRP
ORDERNUMBER	1.000000	0.062640	-0.003321	-0.054300	0.028217	0.982862	-0.251476	0.013858
QUANTITYORDERED	0.062640	1.000000	0.010018	-0.016372	0.550629	0.055383	-0.021122	0.019799
PRICEEACH	-0.003321	0.010018	1.000000	-0.051670	0.814267	-0.006834	-0.397263	0.781075
ORDERLINENUMBER	-0.054300	-0.016372	-0.051670	1.000000	-0.055499	-0.045635	0.046615	0.020874
SALES	0.028217	0.550629	0.814267	-0.055499	1.000000	0.021874	-0.336058	0.645122
ORDERDATE	0.982862	0.055383	-0.006834	-0.045635	0.021874	1.000000	-0.252259	0.016444
DAYS_SINCE_LASTORDER	-0.251476	-0.021122	-0.397263	0.046615	-0.336058	-0.252259	1.000000	0.524044
MSRP	-0.013858	0.019799	0.781075	-0.020874	0.645122	-0.016444	-0.524044	1.000000

MULTIVARIATE ANALYSIS:

- Strong Positive Correlation between Price Each and MSRP: The correlation coefficient between Price Each and MSRP is 0.781075, suggesting a strong positive linear relationship. This means that the price at which a product is sold Price Each tends to be positively correlated with its Manufacturer's Suggested Retail Price MSRP.

- Strong Positive Correlation between Order Date and Order Number: The correlation coefficient between Order Date and Order Number is 0.982862, indicating a strong positive linear relationship. This suggests that order numbers tend to increase over time, indicating a growth in orders.

- Negative Correlation between Days Since Last Order and Sales: The correlation coefficient between Days Since Last Order and Sales is -0.336058, showing a negative correlation. This means that as the number of days since the last order increases, sales tend to decrease, although the correlation is not very strong.
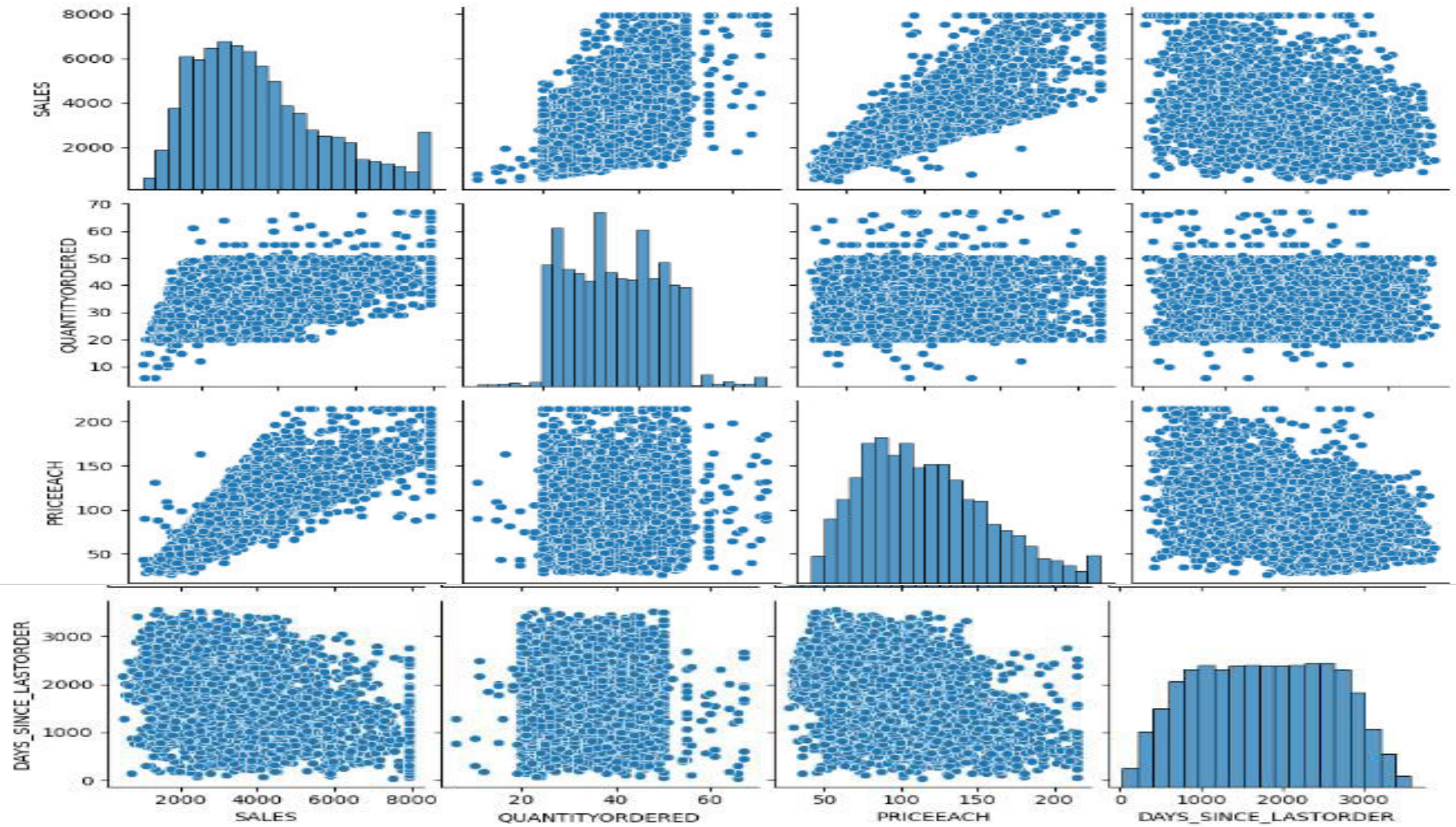
- Weak Correlations with Order Line Number: Order Line Number doesn't show strong correlations with other variables, indicating that it may not be strongly related to other aspects of the data

- Strong Positive Correlation between Price Each and Sales: The correlation coefficient between Price Eachn and Sales is 0.814267, suggesting a strong positive linear relationship. This means that the price at which a product is sold Price Each is strongly positively correlated with sales.

- Negative Correlation between Price Each and Days Since Last Order: The correlation coefficient between Price Each and "Days Since Last Order is -0.397263, indicating a moderate negative linear relationship. This suggests that as the price of a product increases, the number of days since the last order tends to decrease. In other words, higher-priced products may be ordered more frequently.

- Negative Correlation between Quantity Ordered and Days Since Last Order: The correlation coefficient between Quantity Ordered" and Days Since Last Order is -0.021122, indicating a weak negative linear relationship. This suggests that there is a slight tendency for the number of days since the last order to increase slightly as the quantity ordered decreases, but the correlation is not strong.

Correlation Heatmap
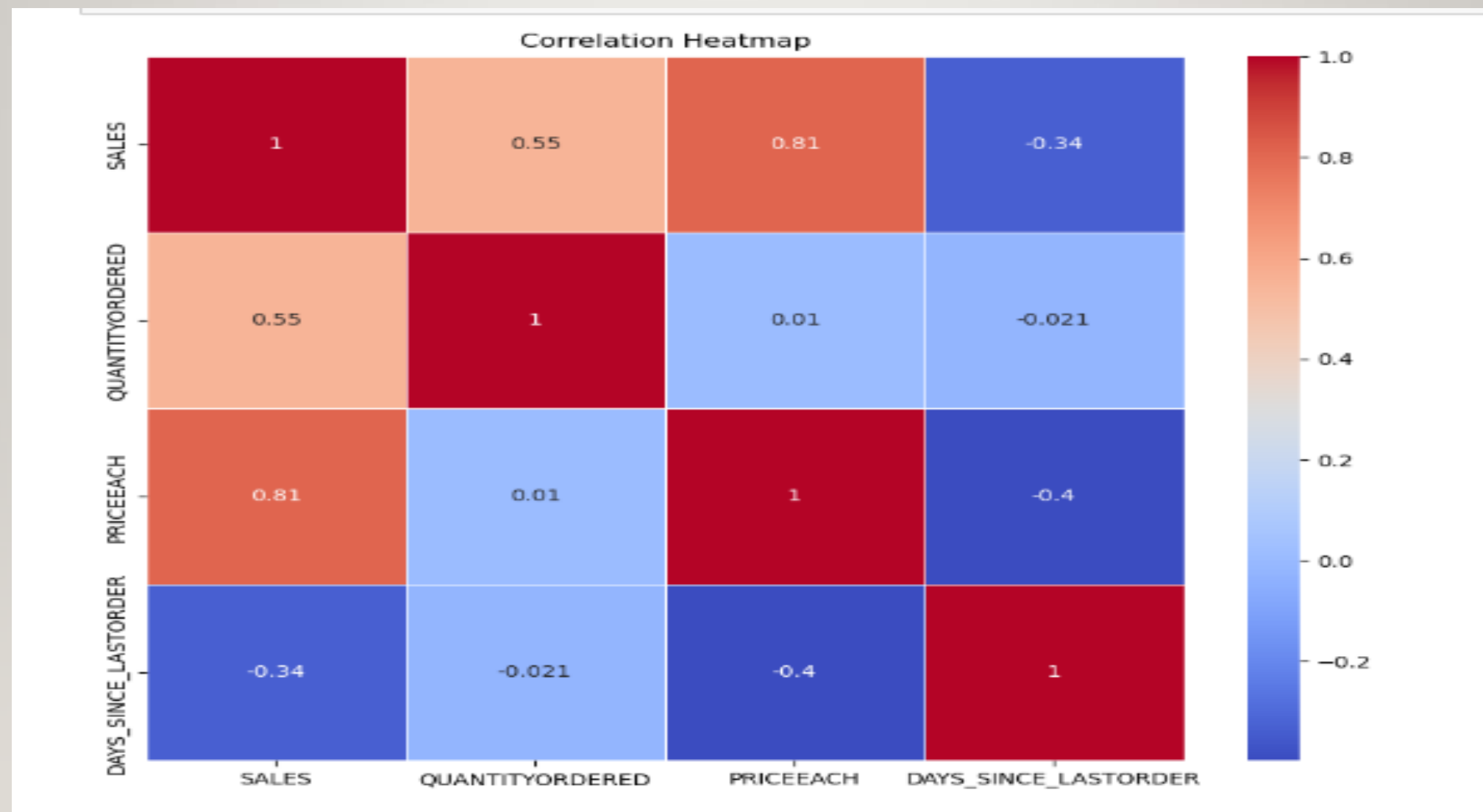
Pair Plot for Continuous Variables

Quantity Ordered Productline

Classic Cars 20.76 · Classic Cars 27.68 · Classic Cars 34.6 · Classic Cars 41.52 · Classic Cars 48.44 · Classic Cars 13.84

Vintage Cars 27.68 · Vintage Cars 41.52 · Vintage Cars 48.44 · Vintage Cars 20.76 · Vintage Cars 34.6 · Vintage Cars

Motorcycles 34.6 · Motorcycles 20.76 · Motorcycles 27.68 · Motorcycles 41.52

Trucks and Buses 34.6 · Trucks and Buses 41.52 · Trucks and Buses 20.76 · Trucks and Buses 27.68

Planes 20.76 · Planes 27.68 · Planes 41.52 · Planes 34.6

Ships 27.68 · Ships 20.76 · Ships 34.6 · Ships 41.52

TOP AND BOTTOM CUSTOMERS

Top Customers

Customername	Rank of ..	Quantit..	Sales
Euro Shopping Channel	1	9,327	912,294
Mini Gifts Distributors Ltd.	2	6,366	654,858
Australian Collectors, Co.	3	1,926	200,995
La Rochelle Gifts	4	1,832	180,125
AV Stores, Co.	5	1,778	157,808
Land of Toys Inc.	6	1,631	164,069
Muscle Machine Inc	7	1,775	197,737
Rovelli Gifts	8	1,650	137,956
Souveniers And Things Co.	9	1,601	151,571

Customername	Rank of ..	Quantit..	Sales
Boards & Toys Co.	89	102	9,129
Atelier graphique	88	270	24,180
Auto-Moto Classics Inc.	87	287	26,479
Microscale Inc.	85	381	33,145
Royale Belge	86	278	33,440
Bavarian Collectables Imp..	80	401	34,994
Double Decker Gift Stores..	83	357	36,019
Cambridge Collectables Co.	84	357	36,164
West Coast Collectables C..	81	511	46,085
CAF Imports	82	468	49,642

CUSTOMER SEGMENTATION USING RFM

- We have use Knime Analytics to segmentate customers based on their RFM analysis.

- Parameters used are Quantity Ordered, Sales, order date

For Recency we have calculated present date with order date

Frequency we have taken as Quantity ordered

And Sales for Monetary

RFM STANDS FOR RECENCY, FREQUENCY & MONETARY IT'S A TECHNIQUE USED IN BUSINESS TO SEGMENT THE CUSTOMERS BASED ON INTERACTIONS AND TRANSACTIONS.

| ORDERNUMBE	CUSTOMERNA	QUANTITY	SALES	ORDERDATE	DAYS_SIN	Monetary	Recency	QUANTITY	Monetary	Recency [I	Recency (;	Frequency	Monetary (#1	RFM Score
10105	Danish Whole	50	58871.11	11-02-2018	939	58871.11	2034	Bin 4	Bin 4	Bin 4	Bin 4	Bin 4	Bin 4	444
10127	Muscle Machi	46	68462.15	03-06-2018	905	68462.15	1922	Bin 4	Bin 4	Bin 4	Bin 4	Bin 4	Bin 4	444
10145	Toys4GrownU	45	55776.12	25-08-2018	649	55776.12	1839	Bin 4	Bin 4	Bin 4	Bin 4	Bin 4	Bin 4	444
10165	Dragon Souve	44	77809.37	22-10-2018	767	77809.37	1781	Bin 4	Bin 4	Bin 4	Bin 4	Bin 4	Bin 4	444
10167	Scandinavian	44	48710.92	23-10-2018	690	48710.92	1780	Bin 4	Bin 4	Bin 4	Bin 4	Bin 4	Bin 4	444
10115	Classic Legend	46	24777.41	04-04-2018	1139	24777.41	1982	Bin 4	Bin 3	Bin 4	Bin 4	Bin 4	Bin 3	443
10119	Salzburg Colle	46	38629.14	28-04-2018	864	38629.14	1958	Bin 4	Bin 3	Bin 4	Bin 4	Bin 4	Bin 3	443
10133	Euro Shoppin	49	22167.74	27-06-2018	1457	22167.74	1898	Bin 4	Bin 3	Bin 4	Bin 4	Bin 4	Bin 3	443
10143	Mini Creation	49	45738.39	10-08-2018	762	45738.39	1854	Bin 4	Bin 3	Bin 4	Bin 4	Bin 4	Bin 3	443
10147	Collectables F	48	34992.4	05-09-2018	788	34992.4	1828	Bin 4	Bin 3	Bin 4	Bin 4	Bin 4	Bin 3	443
10149	Signal Collect	50	34100.03	12-09-2018	1085	34100.03	1821	Bin 4	Bin 3	Bin 4	Bin 4	Bin 4	Bin 4	443
10150	Dragon Souve	45	44219.36	19-09-2018	649	44219.36	1814	Bin 4	Bin 3	Bin 4	Bin 4	Bin 4	Bin 3	443
10173	Rovelli Gifts	43	40077.71	05-11-2018	1032	40077.71	1767	Bin 4	Bin 3	Bin 4	Bin 4	Bin 4	Bin 3	443
10302	UK Collectabl	43	26797.21	06-10-2018	1169	26797.21	1797	Bin 4	Bin 3	Bin 4	Bin 4	Bin 4	Bin 3	443
10137	Reims Collect	44	15146.32	10-07-2018	1195	15146.32	1885	Bin 4	Bin 2	Bin 4	Bin 4	Bin 4	Bin 2	442
10146	Gift Ideas Cor	47	7600.12	03-09-2018	1784	7600.12	1830	Bin 4	Bin 2	Bin 4	Bin 4	Bin 4	Bin 2	442
10166	FunGiftIdeas.	43	11861.69	21-10-2018	1541	11861.69	1782	Bin 4	Bin 2	Bin 4	Bin 4	Bin 4	Bin 2	442
10170	Mini Auto We	47	14938.15	04-11-2018	854	14938.15	1768	Bin 4	Bin 2	Bin 4	Bin 4	Bin 4	Bin 2	442
10106	Rovelli Gifts	36	56181.32	17-02-2018	1361	56181.32	2028	Bin 3	Bin 4	Bin 4	Bin 4	Bin 3	Bin 4	434
10108	Cruz & Sons C	33	55245.02	03-03-2018	971	55245.02	2014	Bin 3	Bin 4	Bin 4	Bin 4	Bin 3	Bin 4	434
10110	AV Stores, Co	37	51017.92	18-03-2018	1307	51017.92	1999	Bin 3	Bin 4	Bin 4	Bin 4	Bin 3	Bin 4	434

WE HAVE SUCCESSFULLY SEGMENTED THE CUSTOMERS THE DATASET INCLUDES COLUMNS SUCH AS ORDERNUMBER, CUSTOMERNAME, QUANTITYORDERED, SALES, ORDERDATE, DAYS_SINCE_LASTORDER, MONETARY, RECENCY, FREQUENCY,

BASED ON CUSTOMER SEGMENTS IN BIN4 CAN BE VALUABLE CUSTOMERS SO WE CAN RUN EXCLUSIVE PROMOTIONS OR LOYALTY PROGRAMS THOROUGH TARGETED MARKETING. CUSTOMERS WHO HAVEN'T MAKE A PURCHASE FROM A LONG TIME CAN BE OFFERED SERVICES TO ENCOURAGE PURCHASING

WORKFLOW:
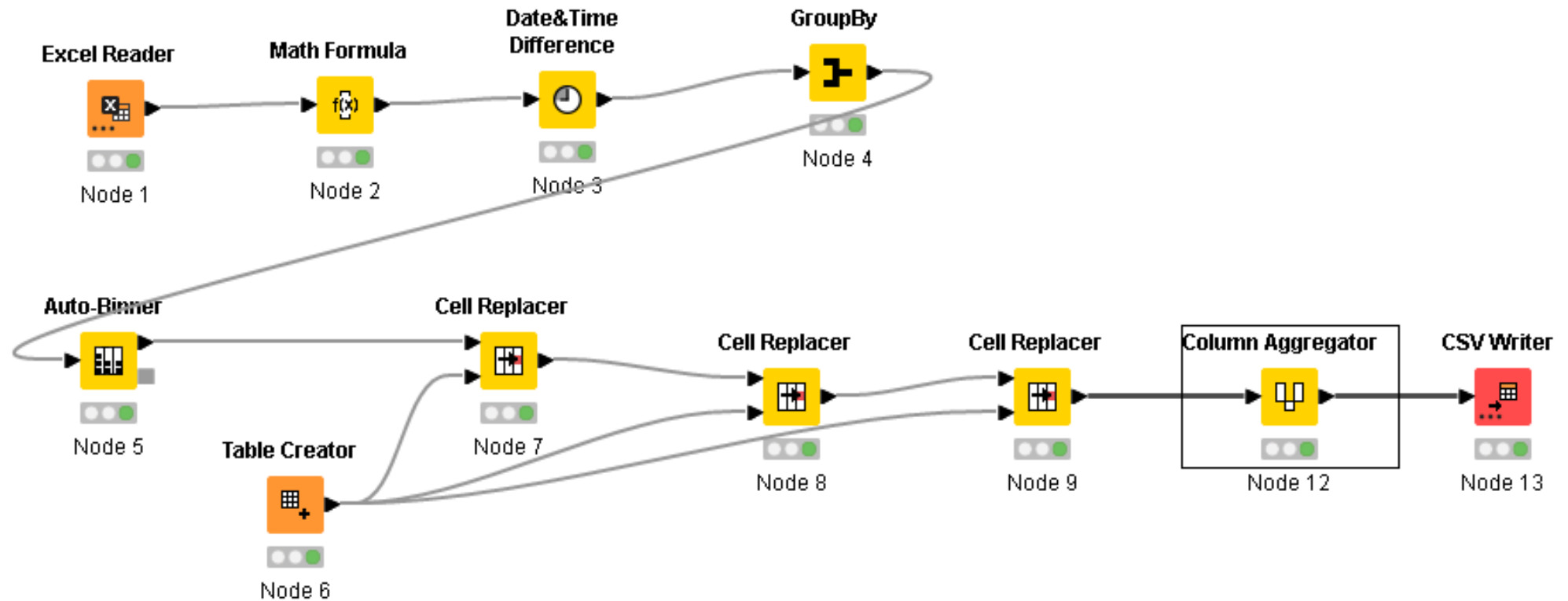
BEST 5 CUSTOMERS WITH RFM SCORES:

1. Danish Wholesale Import RFM score 444

2. Muscle Machine RFM Score 444

3. ToysforGrownups.com score 444

4. Dragon Souvenirs Ltd score 444

5. Scandinavian Gift Ideas score 44

CUSTOMERS ON VERGE OF CHURNING

1. AUTO CANAL PETIT RFM SCORE OF 142

2. AUSTRALIAN COLLECTABLES, LTD SCORE OF 142

3. DIECAST CLASSICS INC. SCORE 142

4. REIMS COLLECTABLES SCORE 142

5. LYON SOUVENIRS SCORE 142

LOST CUSTOMERS:

1. Handji Gifts& Co RFM Score of 111

2. Tokyo Collectables, Ltd score of 111

3. Petit Auto score of 111

4. Euro Shopping Channel – Madrid   score of 113

5. Salzburg Collectables score of 114

LOYAL CUSTOMERS:

- 1.Euro Shopping channel RFM Score 443

- Mini Gifts and distributors score 434

- Australian Collectors, score Co. 432

- La Rochelle Gifts score of 334

- AV Stores, Co. score 344