

**Report
of
Colorado_Motor_Vehicle
Project
(Finance Analyst)**

Overview

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Overview

Alerts **1**

Reproduction

Dataset statistics

Number of variables	4
Number of observations	501
Missing cells	0
Missing cells (%)	0.0%
Duplicate rows	0
Duplicate rows (%)	0.0%
Total size in memory	43.3 KiB
Average record size in memory	88.5 B

Variable types

Numeric	2
Categorical	2

Variables

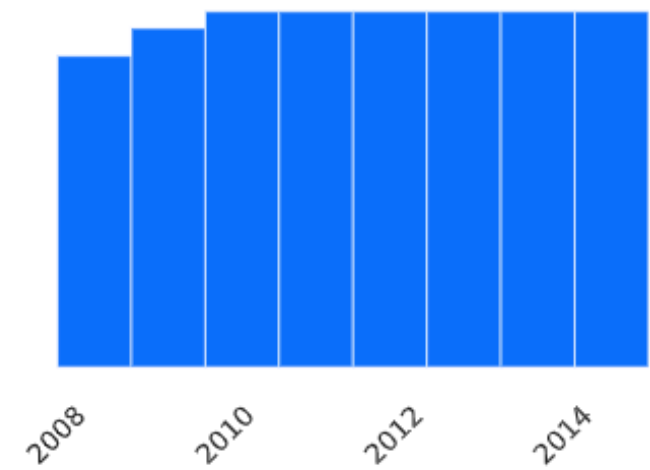
year

▼

year

Real number (ℝ)

Distinct	8	Minimum	2008
Distinct (%)	1.6%	Maximum	2015
Missing	0	Zeros	0
Missing (%)	0.0%	Zeros (%)	0.0%
Infinite	0	Negative	0
Infinite (%)	0.0%	Negative (%)	0.0%
Mean	2011.5709	Memory size	4.0 KiB



More details

Variables

quarter

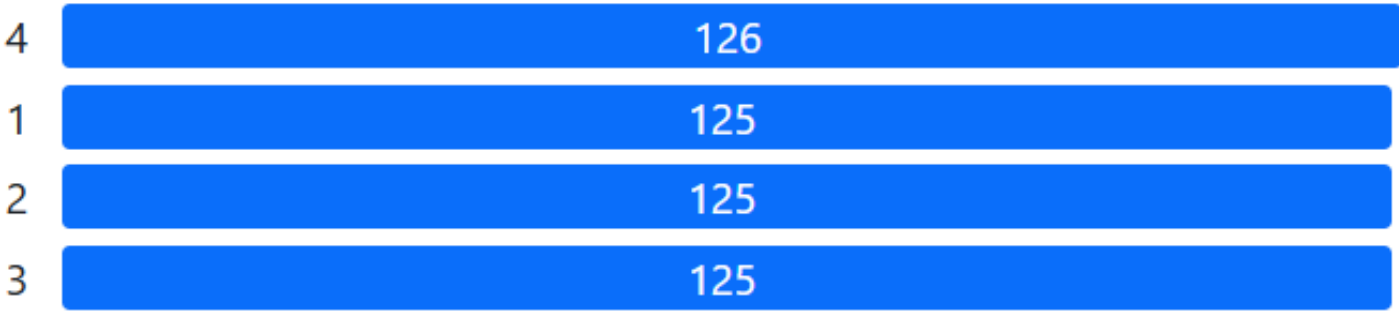
▼

quarter

Categorical

Uniform

Distinct	4
Distinct (%)	0.8%
Missing	0
Missing (%)	0.0%
Memory size	28.5 KiB



More details

Variables

county

▼

county

Categorical

Distinct	17
Distinct (%)	3.4%
Missing	0
Missing (%)	0.0%
Memory size	31.6 KiB



More details

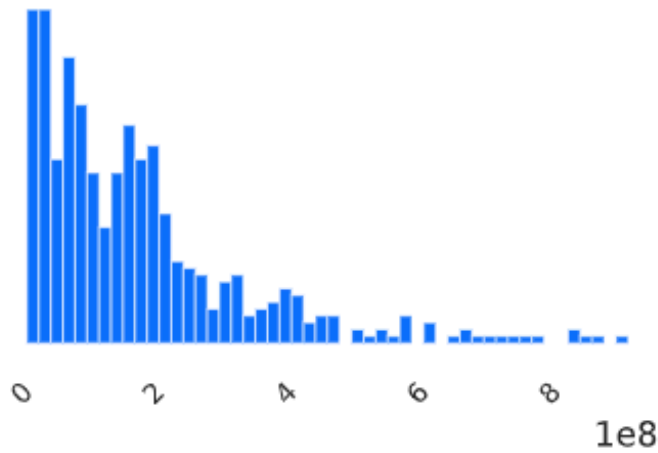
Variables

sales

sales

Real number (\mathbb{R})

Distinct	492	Minimum	6274000
Distinct (%)	98.2%	Maximum	9.1691×10^8
Missing	0	Zeros	0
Missing (%)	0.0%	Zeros (%)	0.0%
Infinite	0	Negative	0
Infinite (%)	0.0%	Negative (%)	0.0%
Mean	1.7605848×10^8	Memory size	4.0 KiB



More details

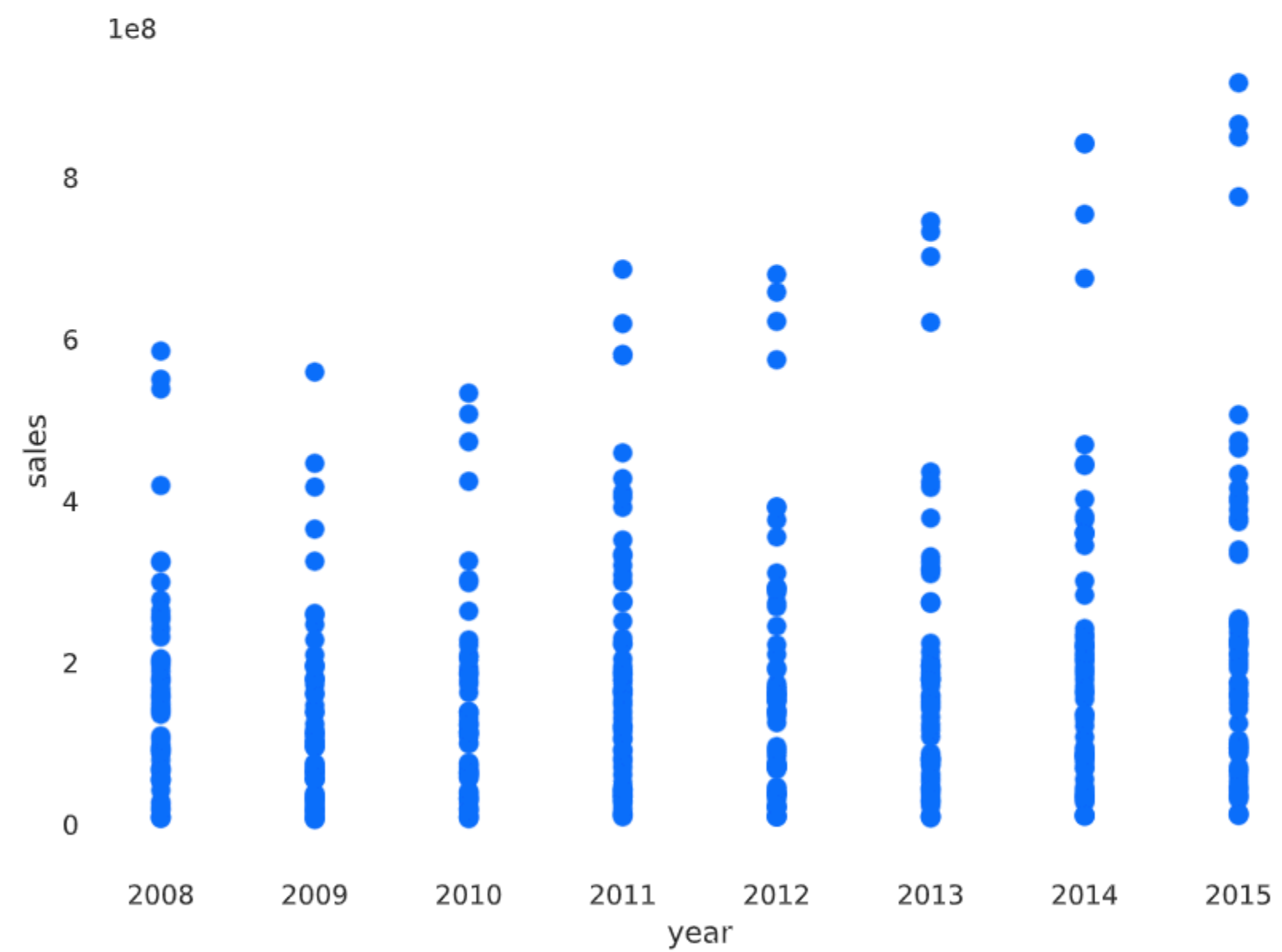
Interactions

year

sales

sales

year

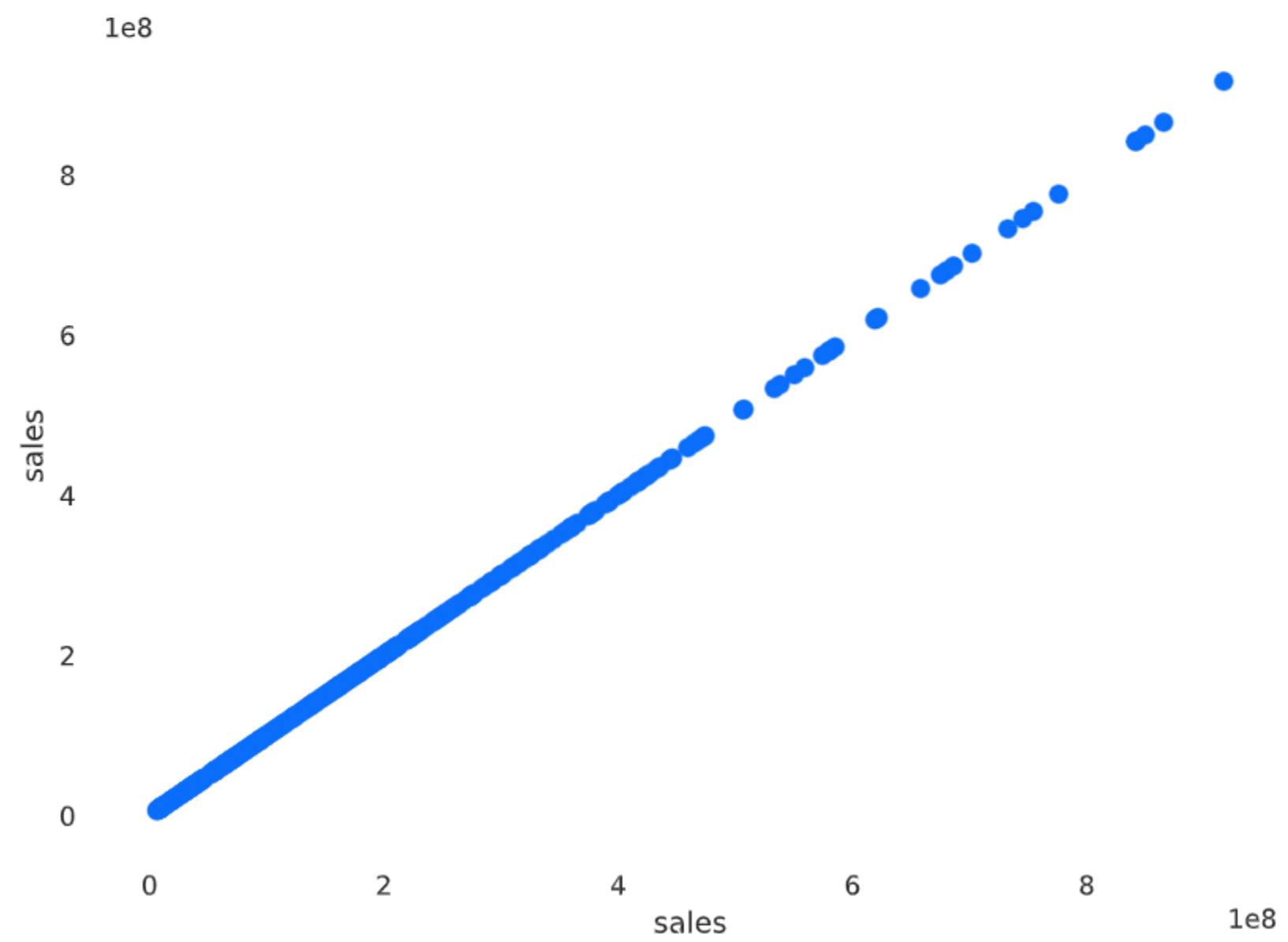


year

sales

sales

year

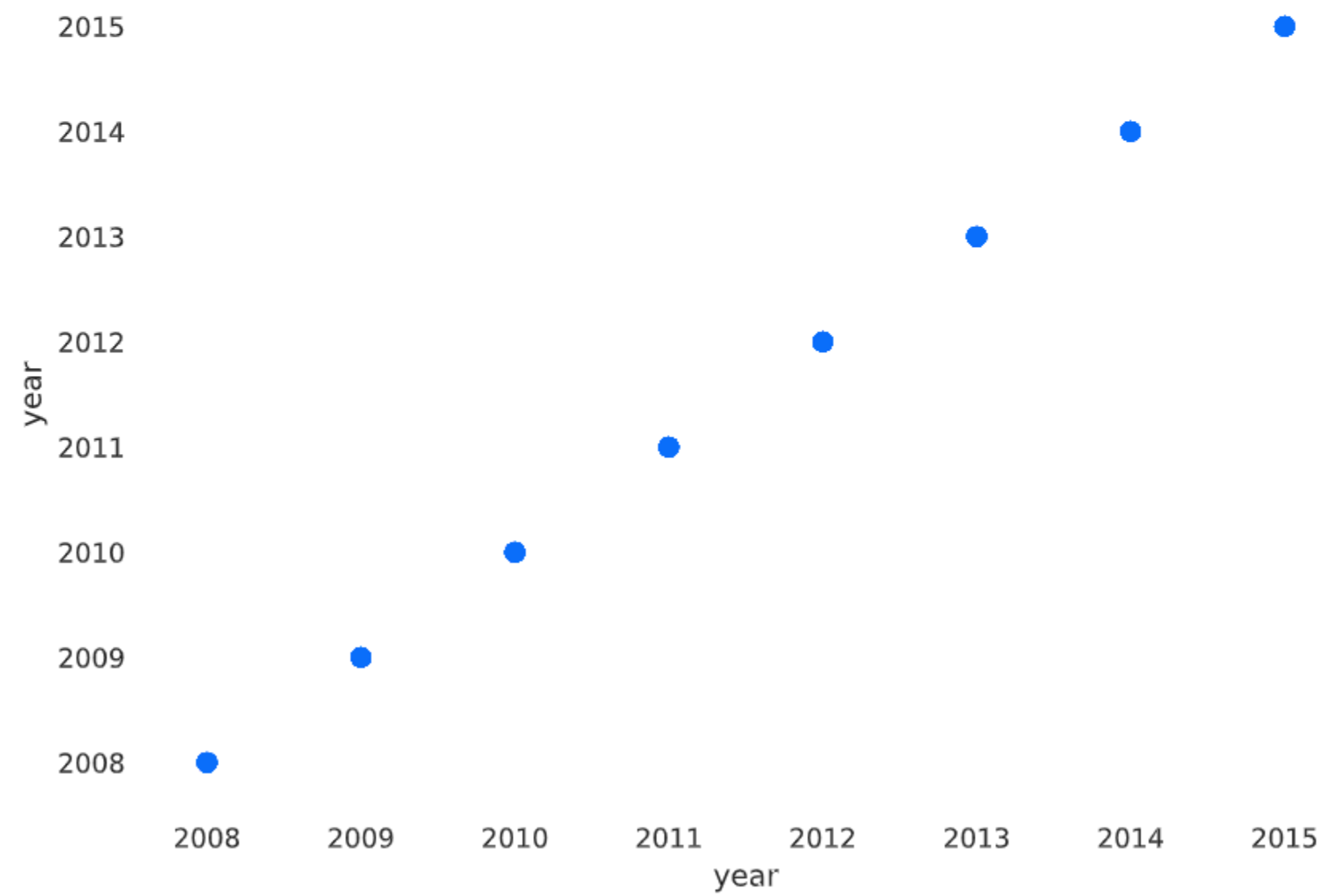


year

sales

sales

year

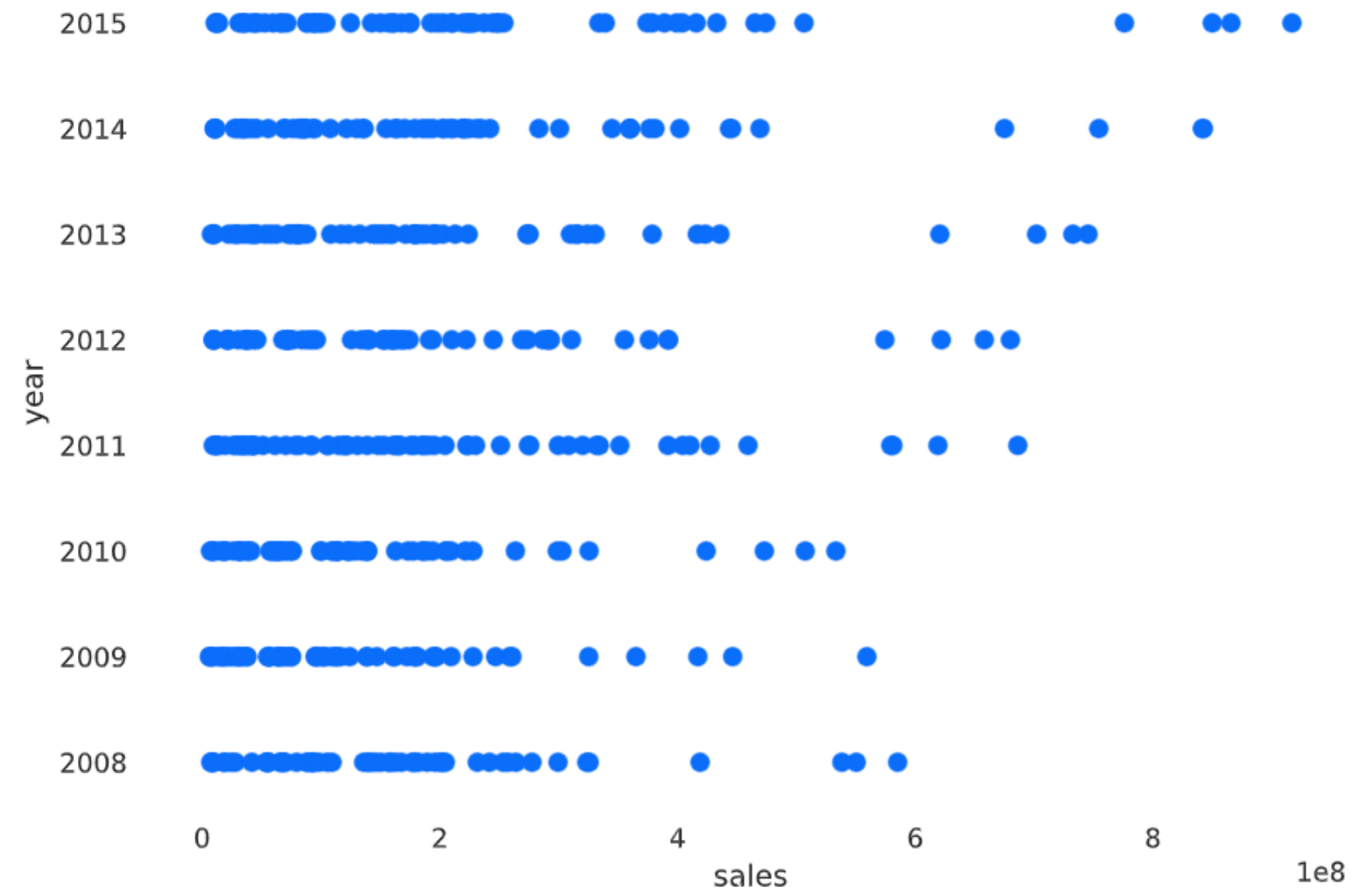


year

sales

sales

year

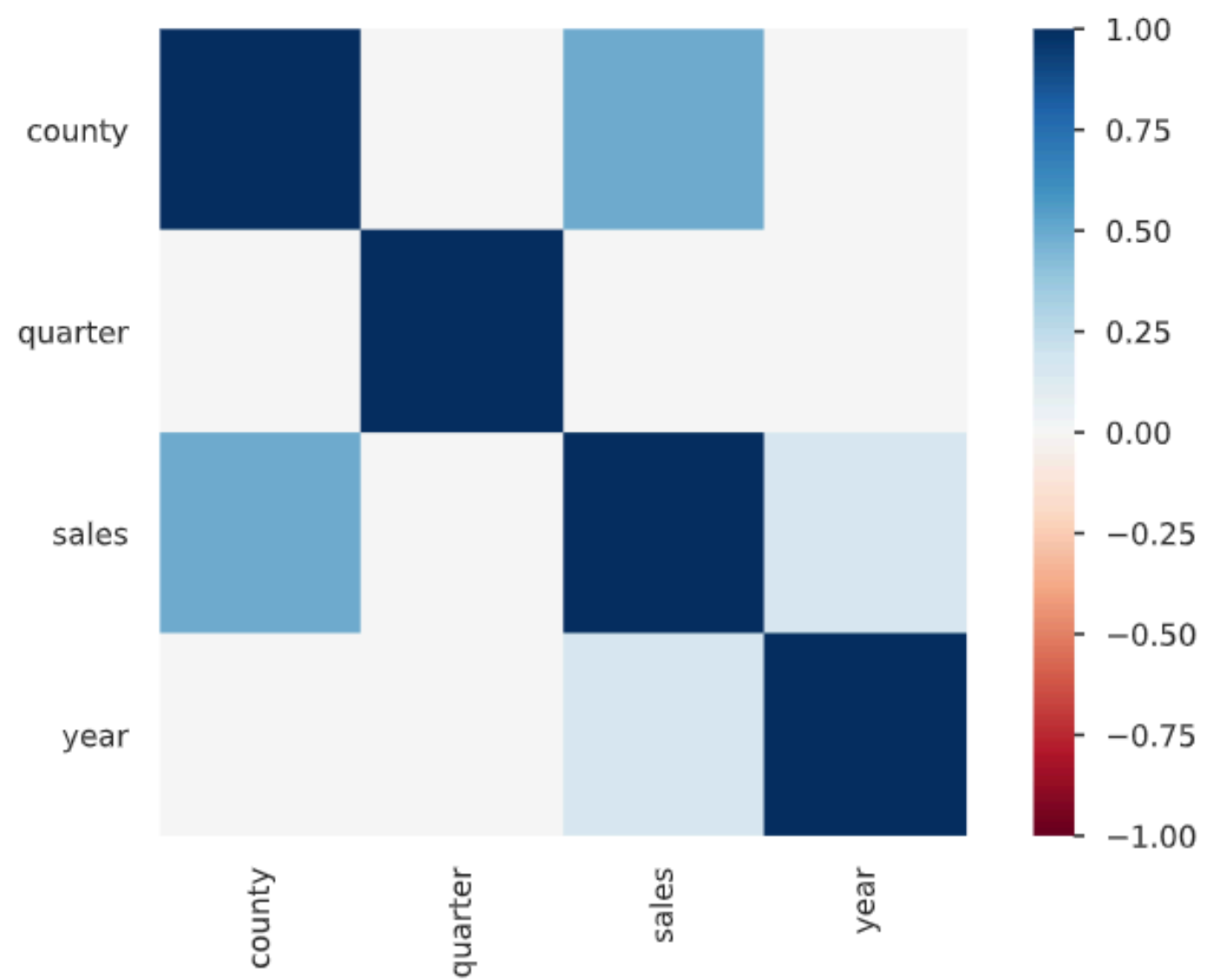


Correlations

Auto

Heatmap

[Table](#)



Correlations

Auto

Heatmap

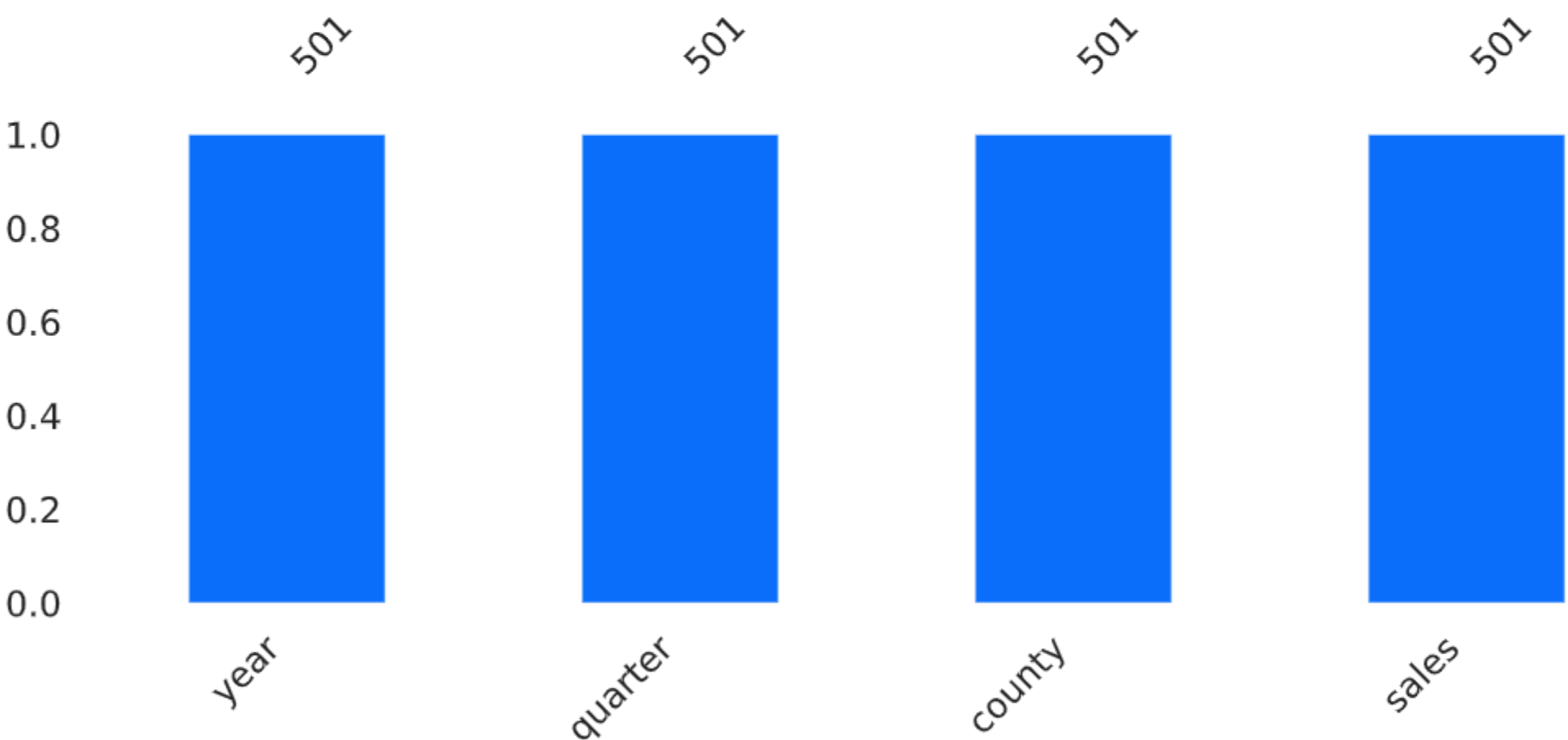
Table

	county		quarter		sales	year
county	1.000	0.000	0.486	0.000		
quarter	0.000	1.000	0.000	0.000		
sales	0.486	0.000	1.000	0.152		
year	0.000	0.000	0.152	1.000		

Missing values

Count

Matrix

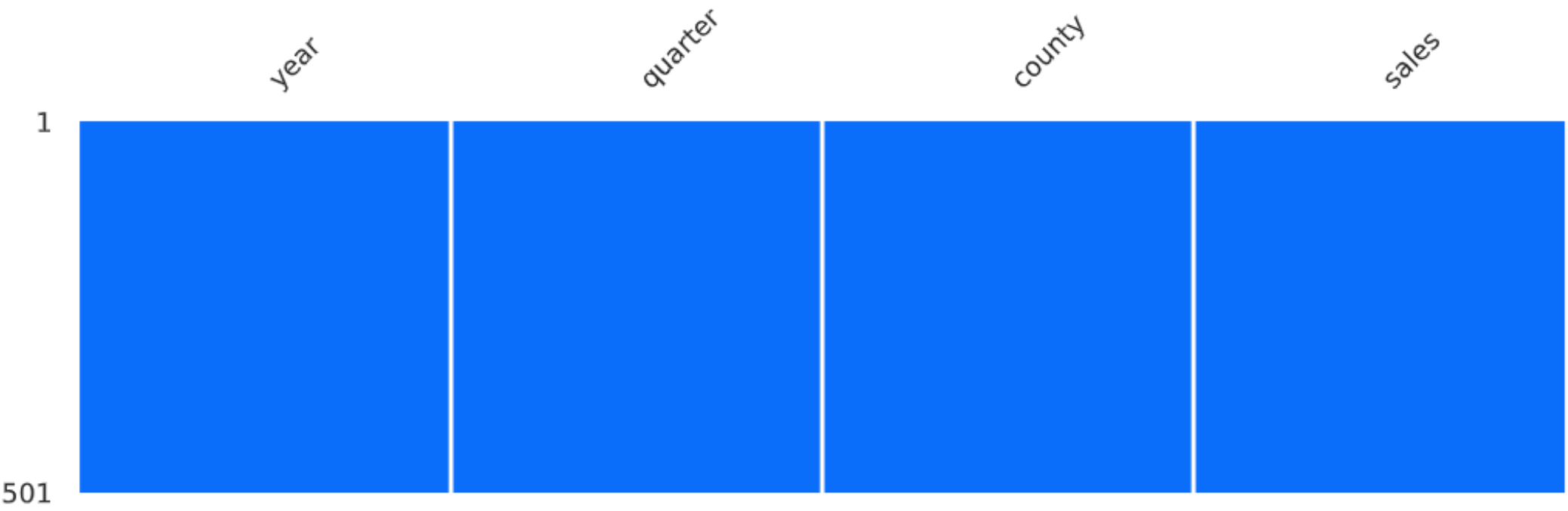


A simple visualization of nullity by column.

Missing values

Count

Matrix



Nullity matrix is a data-dense display which lets you quickly visually pick out patterns in data completion.

Sample

First rows

Last rows

	year	quarter	county	sales
0	2008	1	Adams	231609000
1	2008	1	Arapahoe	550378000
2	2008	1	Boulder/Broomfield	176771000
3	2008	1	Denver	200103000
4	2008	1	Douglas	93259000
5	2008	1	El Paso	325737000
6	2008	1	Fremont	9911000
7	2008	1	Garfield	55701000
8	2008	1	Jefferson	277611000
9	2008	1	La Plata	19558000

Sample

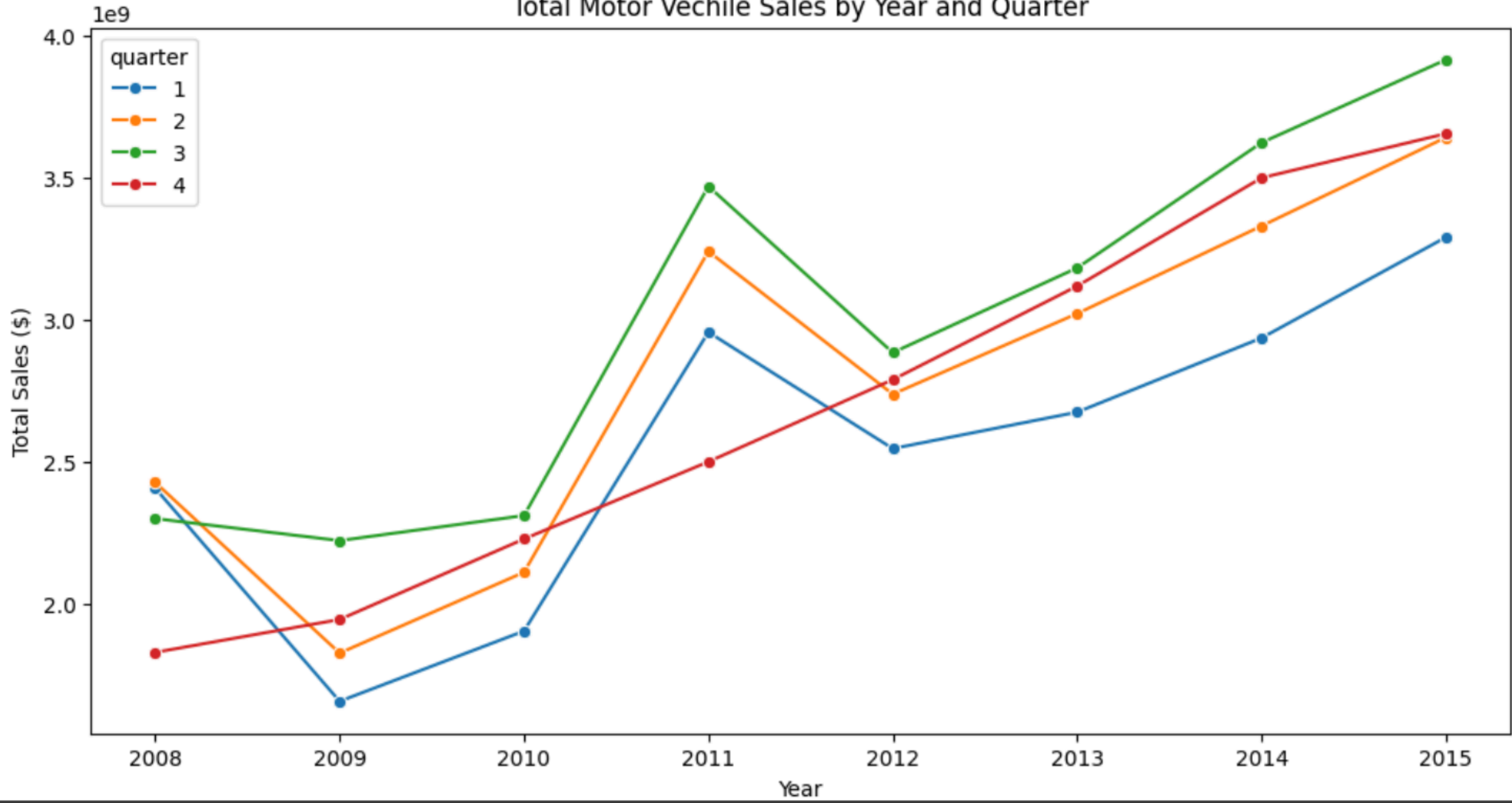
First rows

Last rows

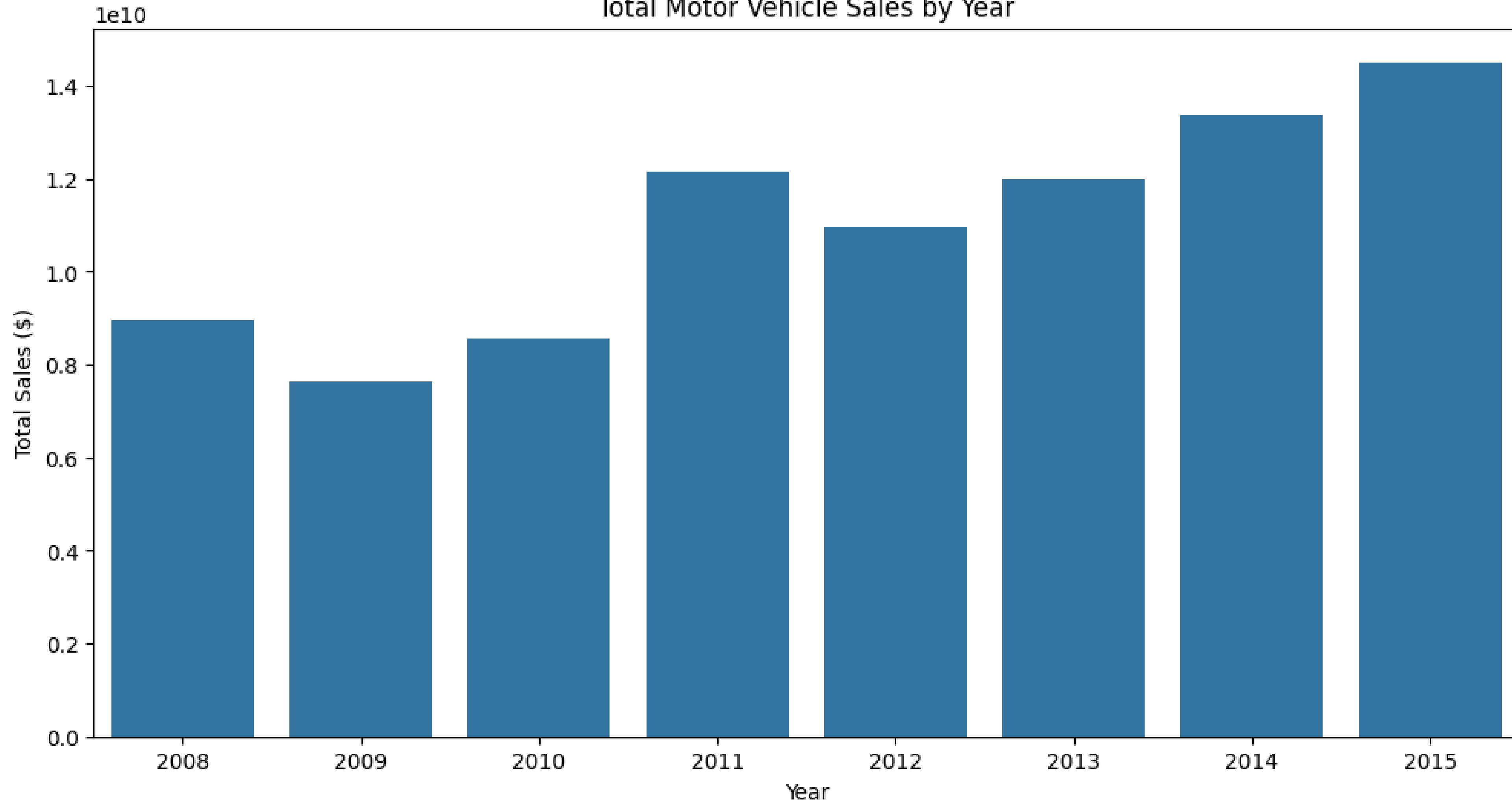
	year	quarter	county	sales
491	2015	4	El Paso	474267000
492	2015	4	Fremont	12039000
493	2015	4	Garfield	67262000
494	2015	4	Jefferson	388977000
495	2015	4	La Plata	35742000
496	2015	4	Larimer	244327000
497	2015	4	Mesa	88202000
498	2015	4	Pueblo	94606000
499	2015	4	Rest of State	157059000
500	2015	4	Weld	192583000

Graphs of Exploratory Data Analysis (EDA) , Statistical Analysis and Predictive Modeling

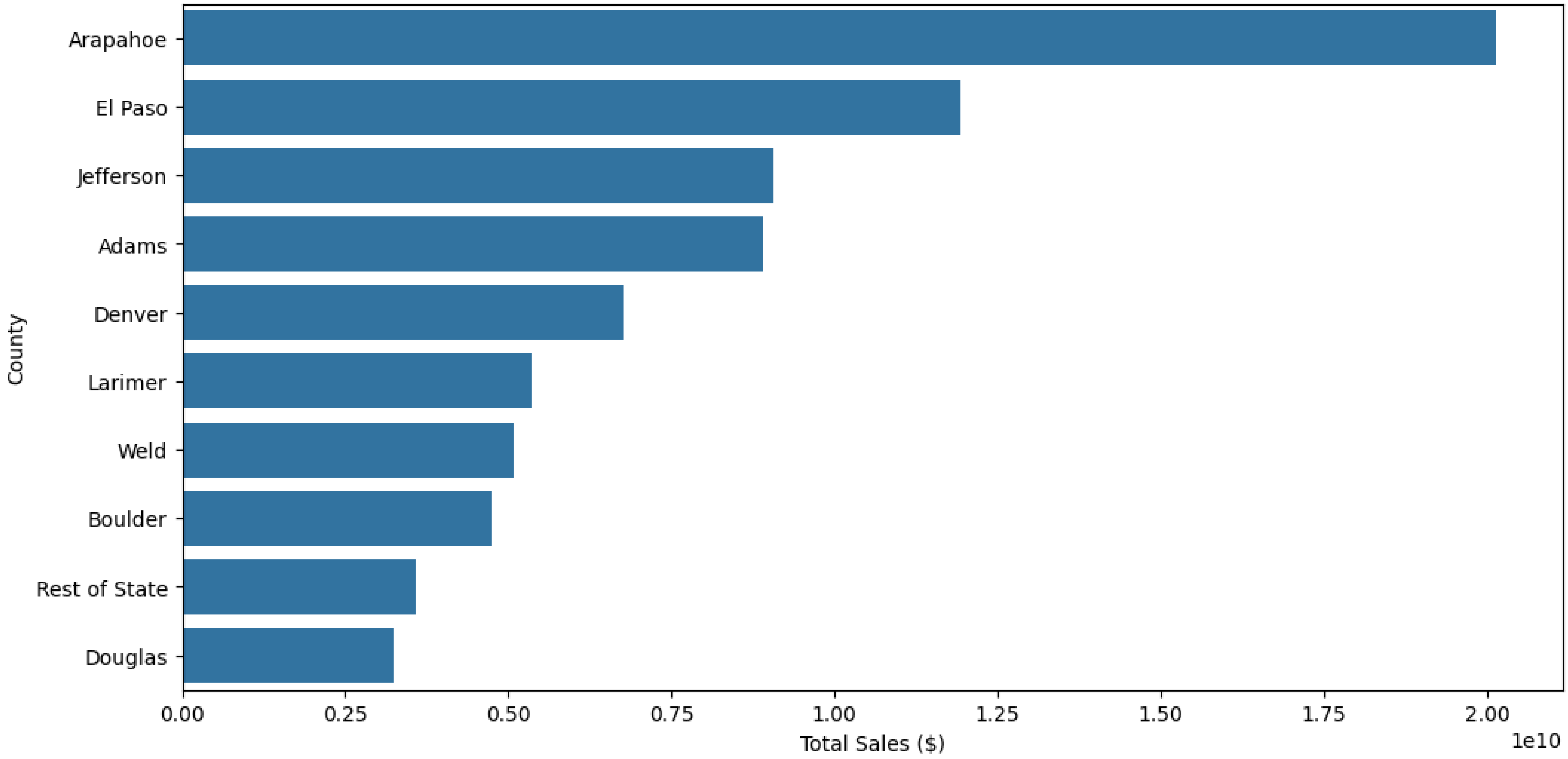
Total Motor Vechile Sales by Year and Quarter

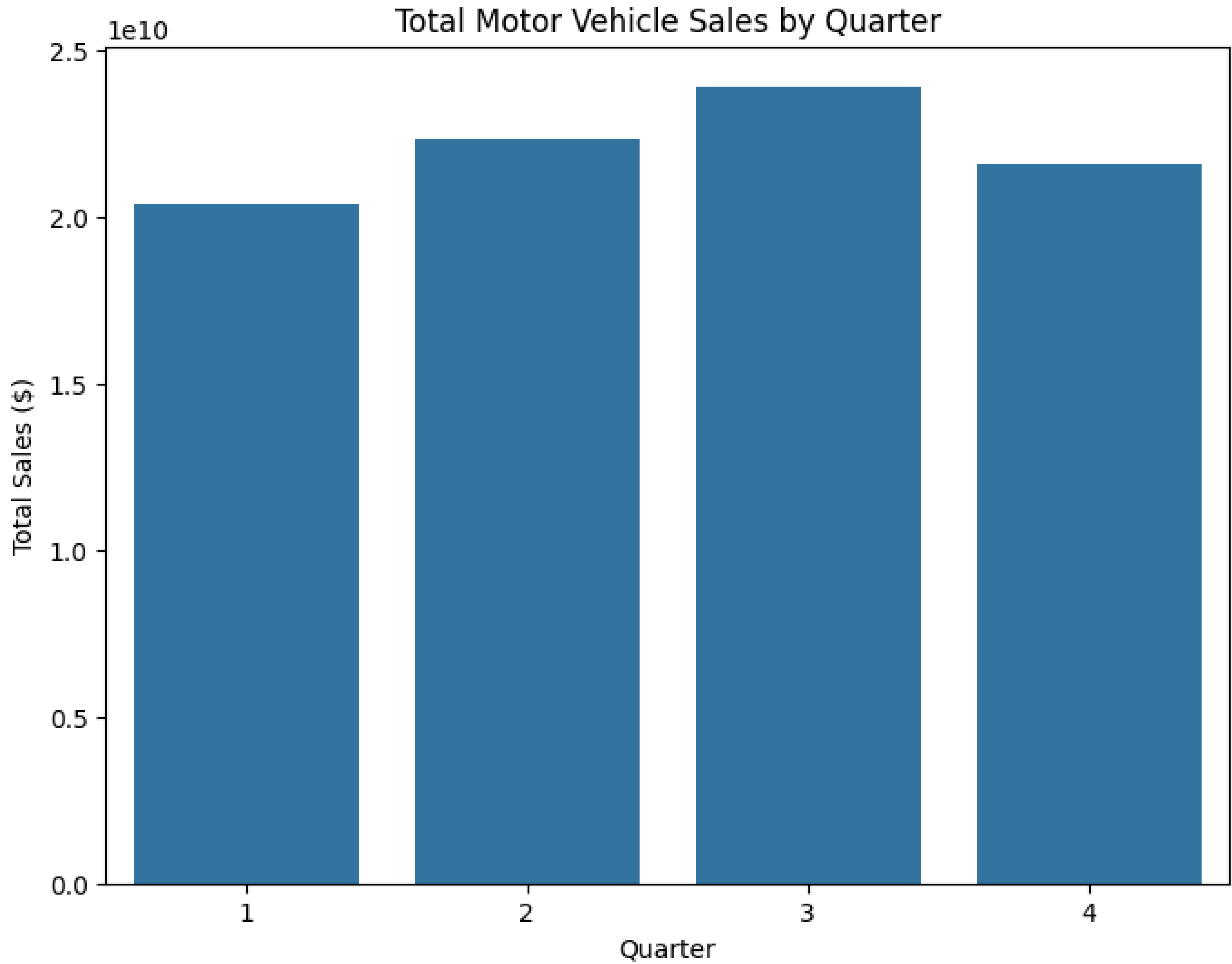


Total Motor Vehicle Sales by Year

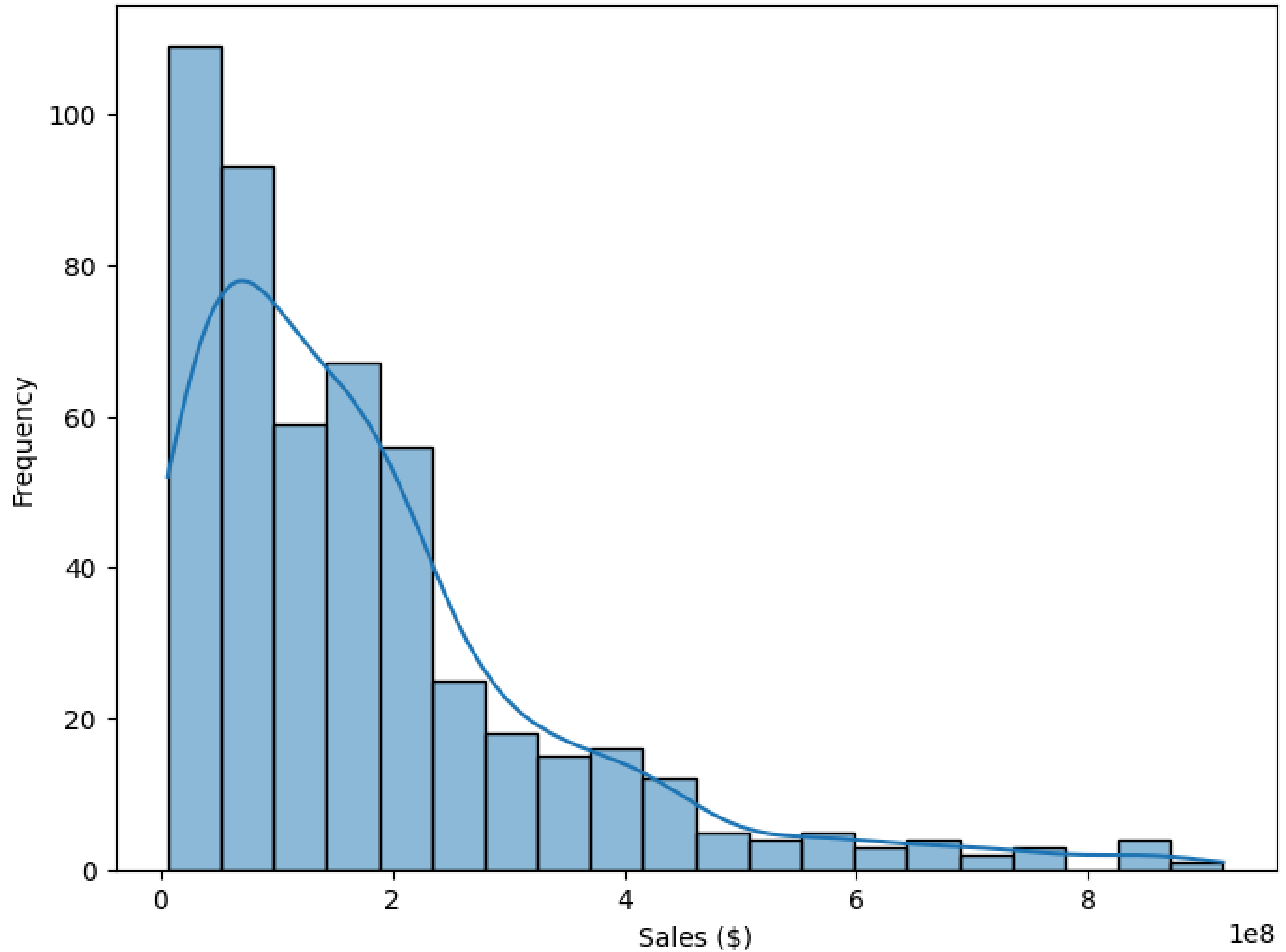


Top 10 Counties by Total Motor Vehicle Sales

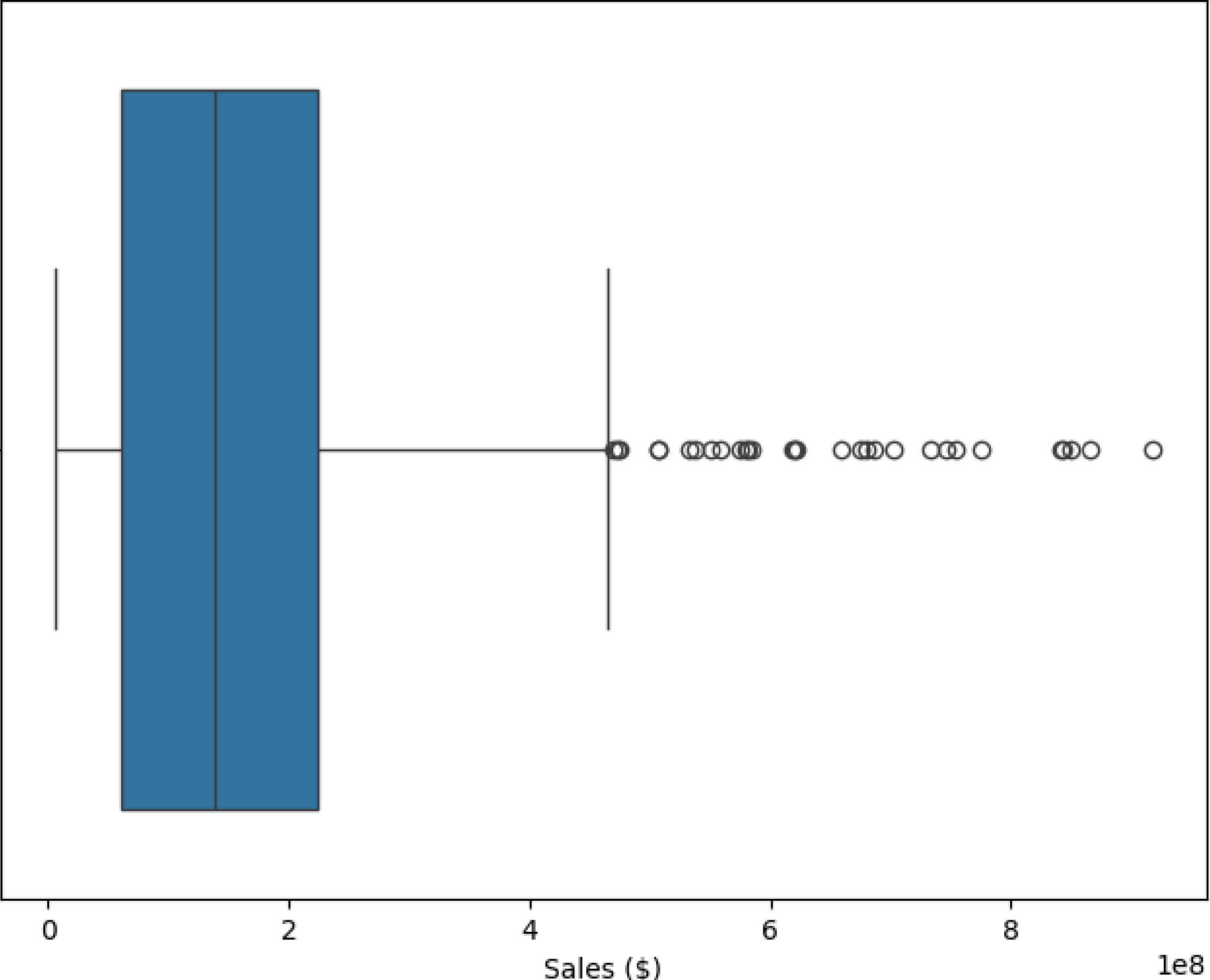




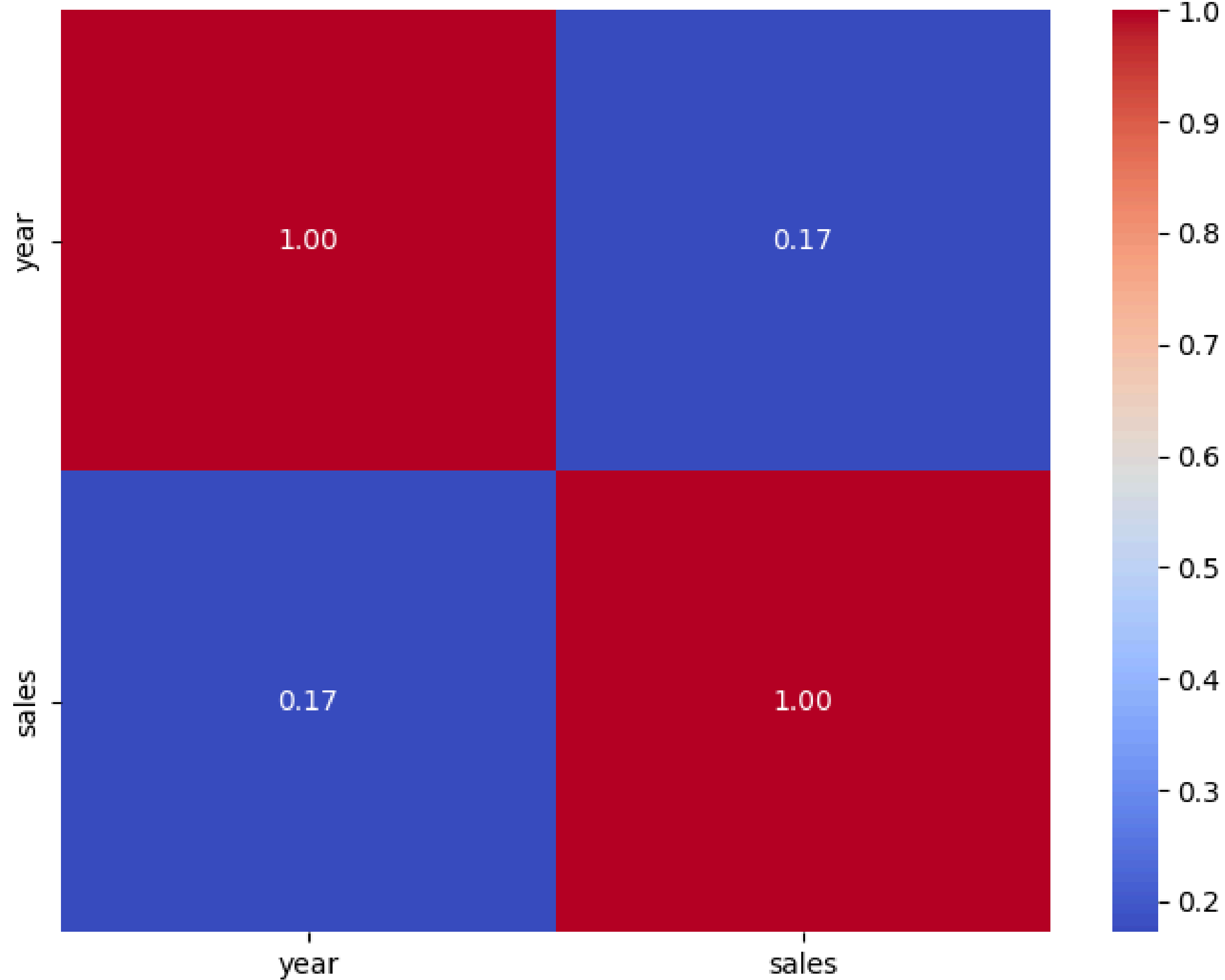
Distribution of Motor Vehicle Sales



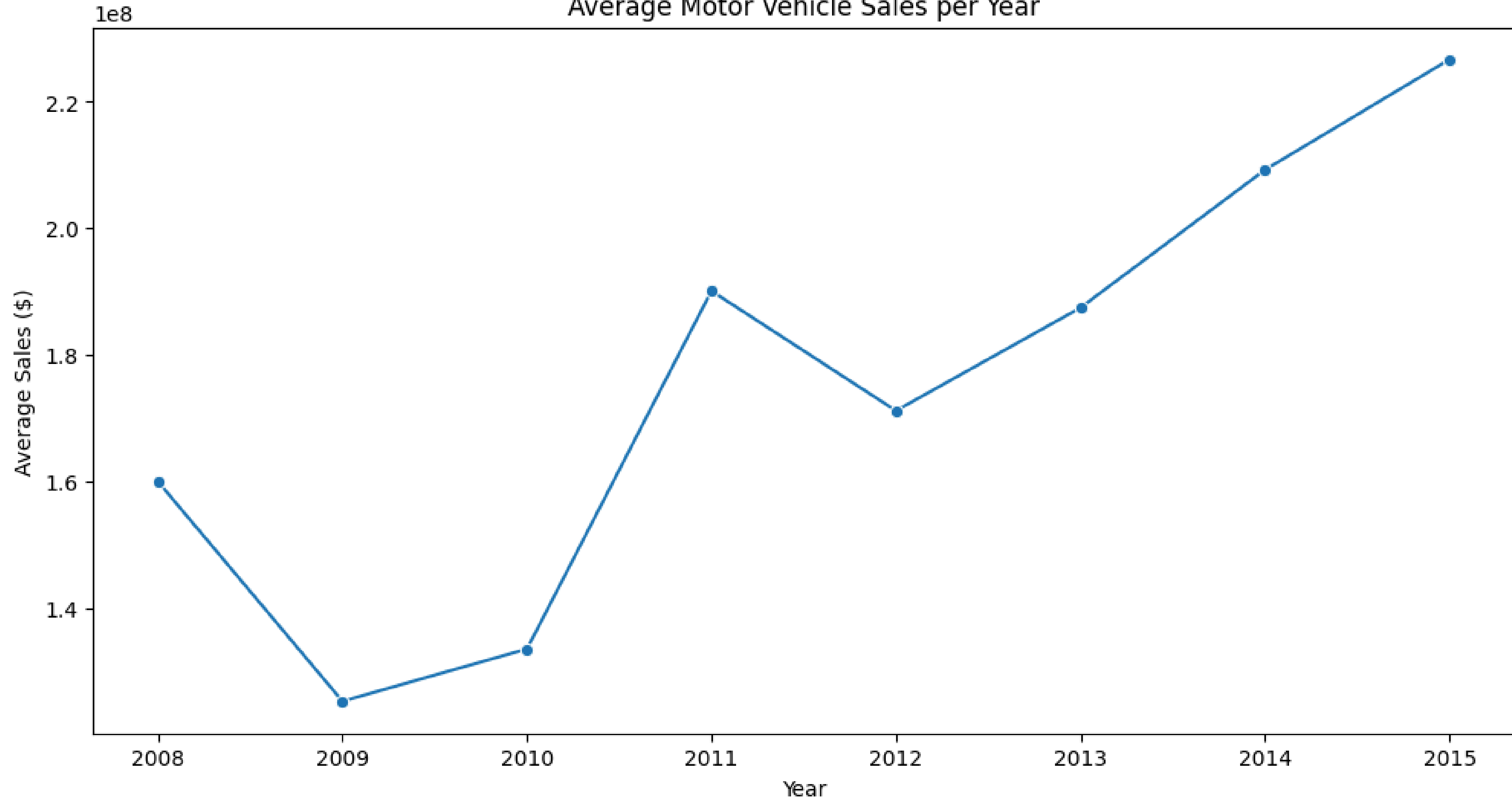
Boxplot of Motor Vehicle Sales

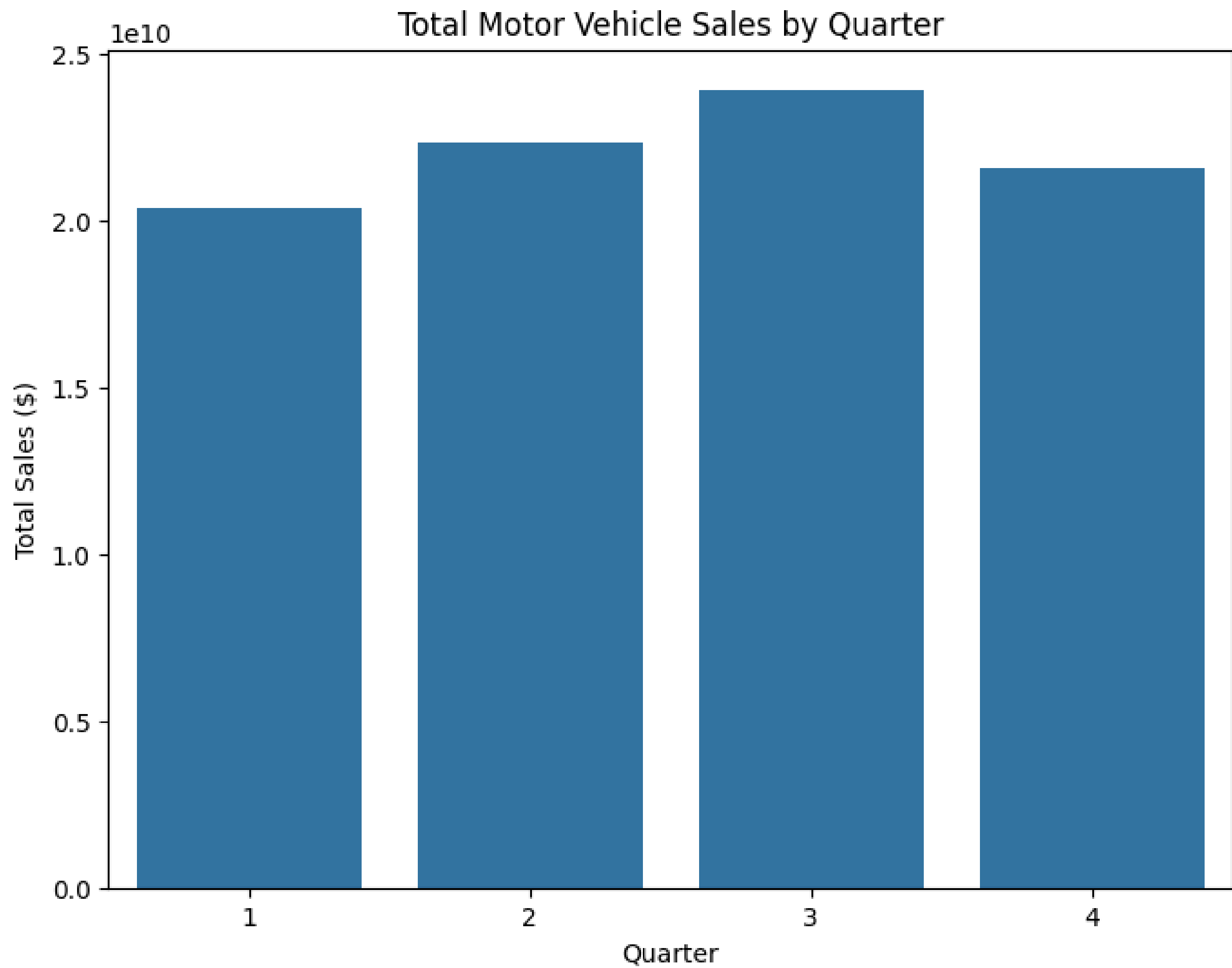


Correlation Matrix

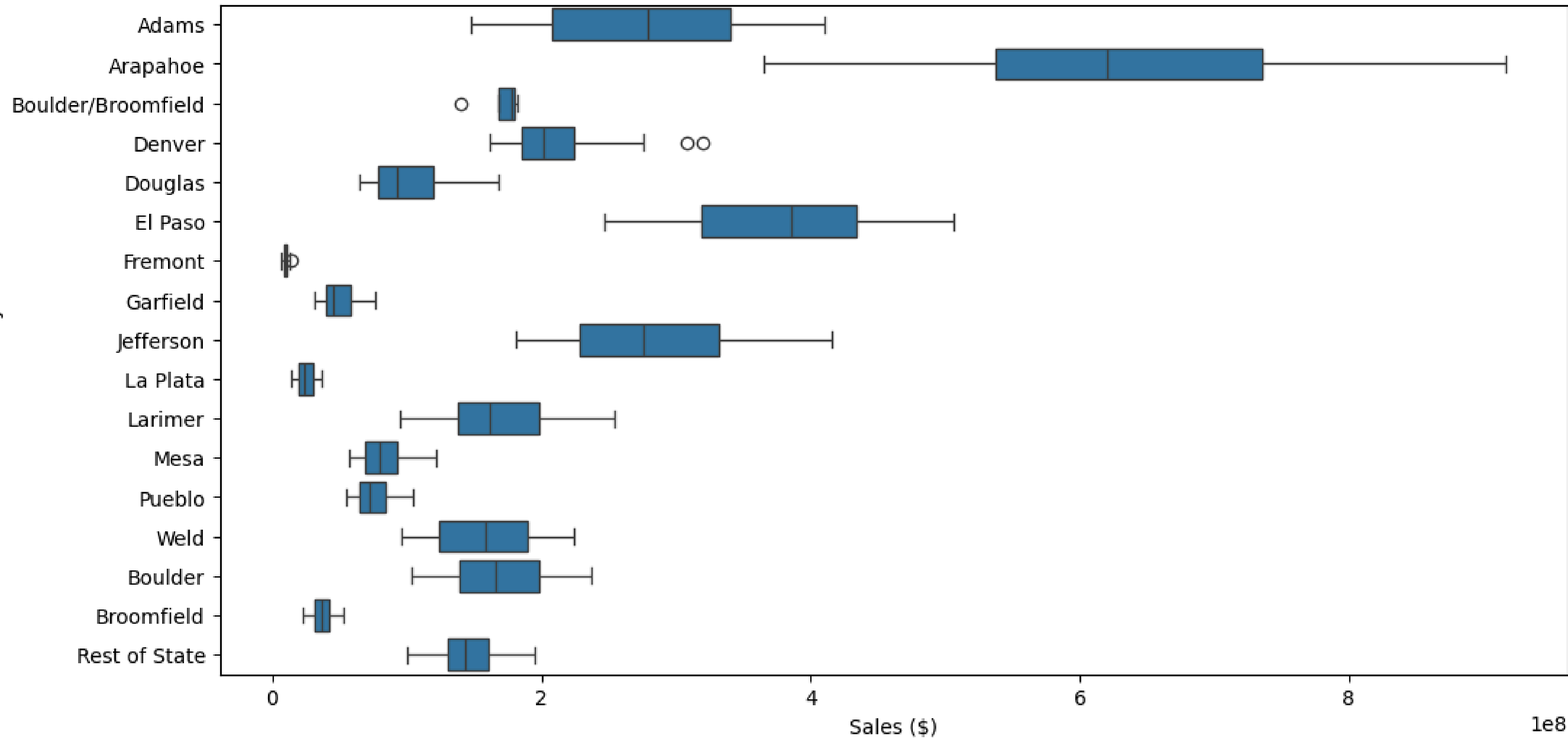


Average Motor Vehicle Sales per Year

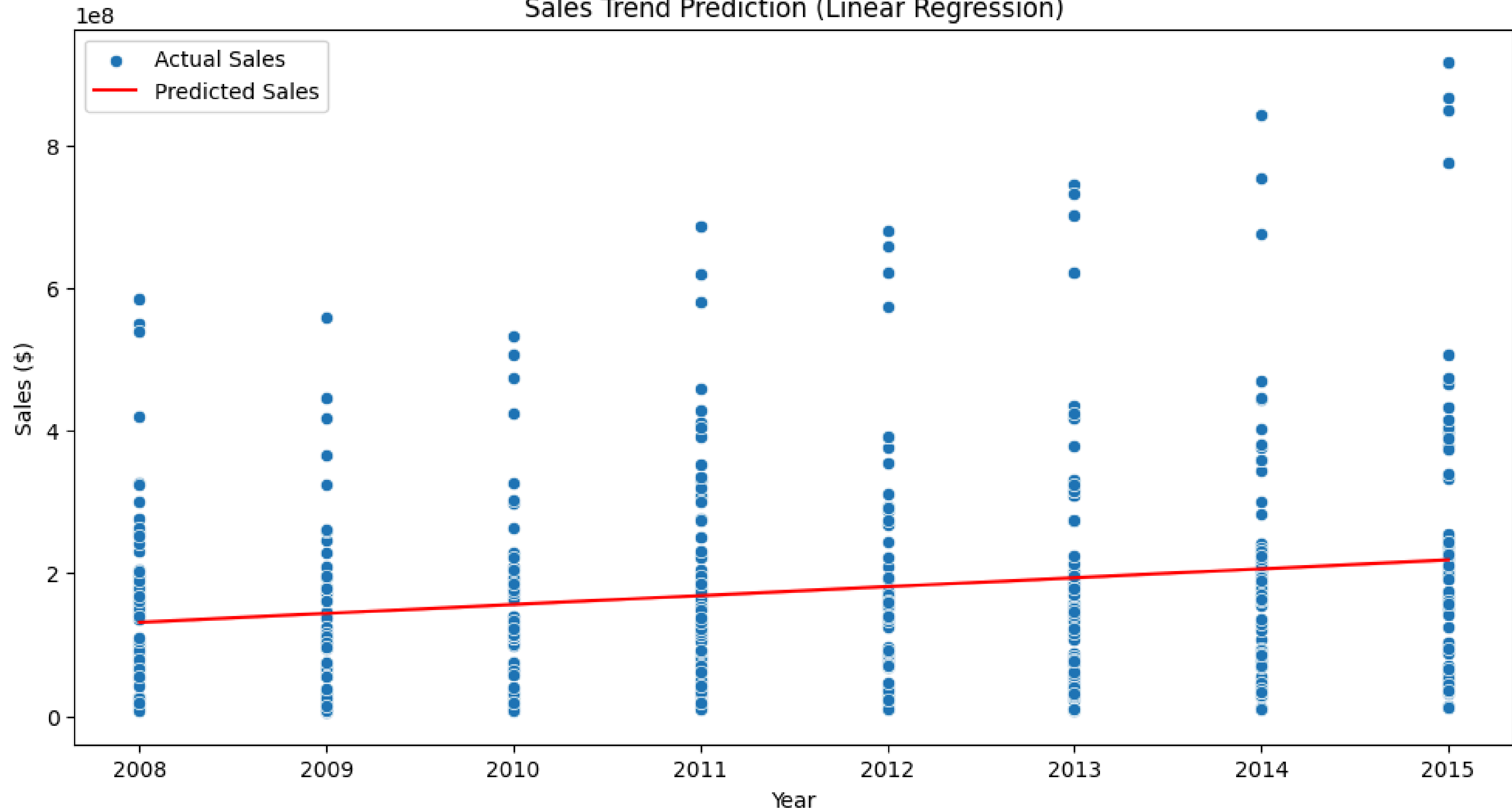


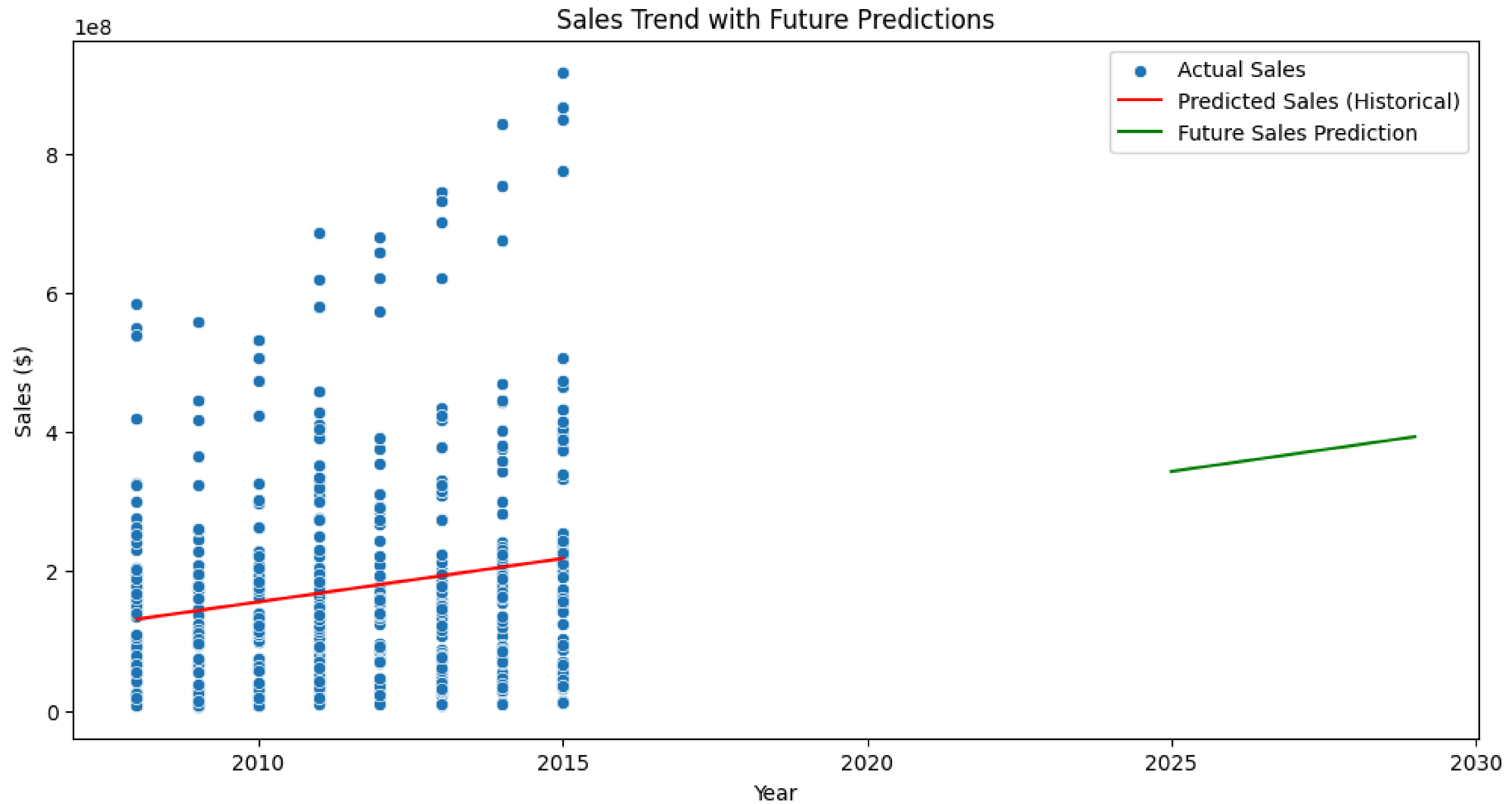


Sales Distribution by County

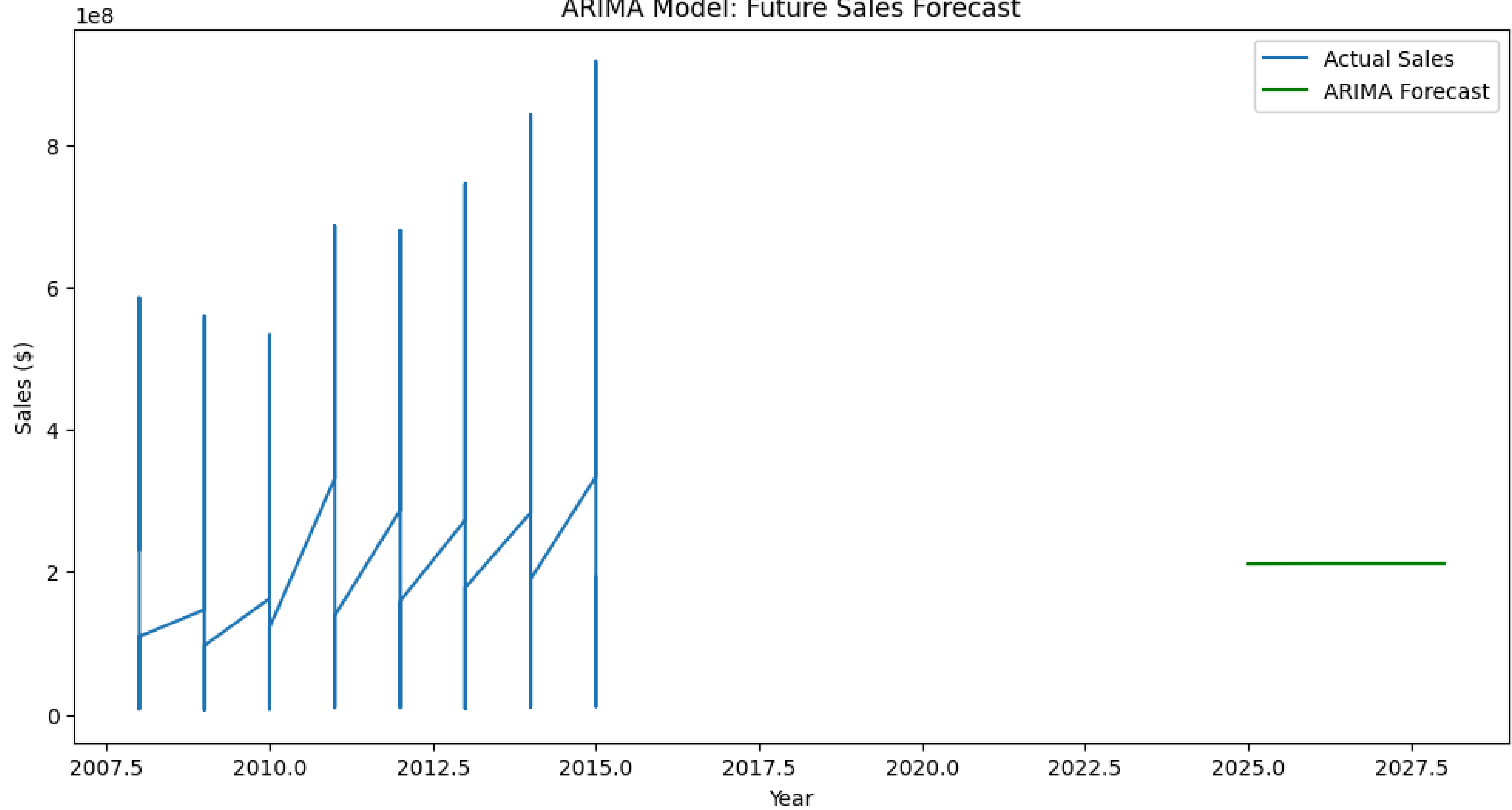


Sales Trend Prediction (Linear Regression)

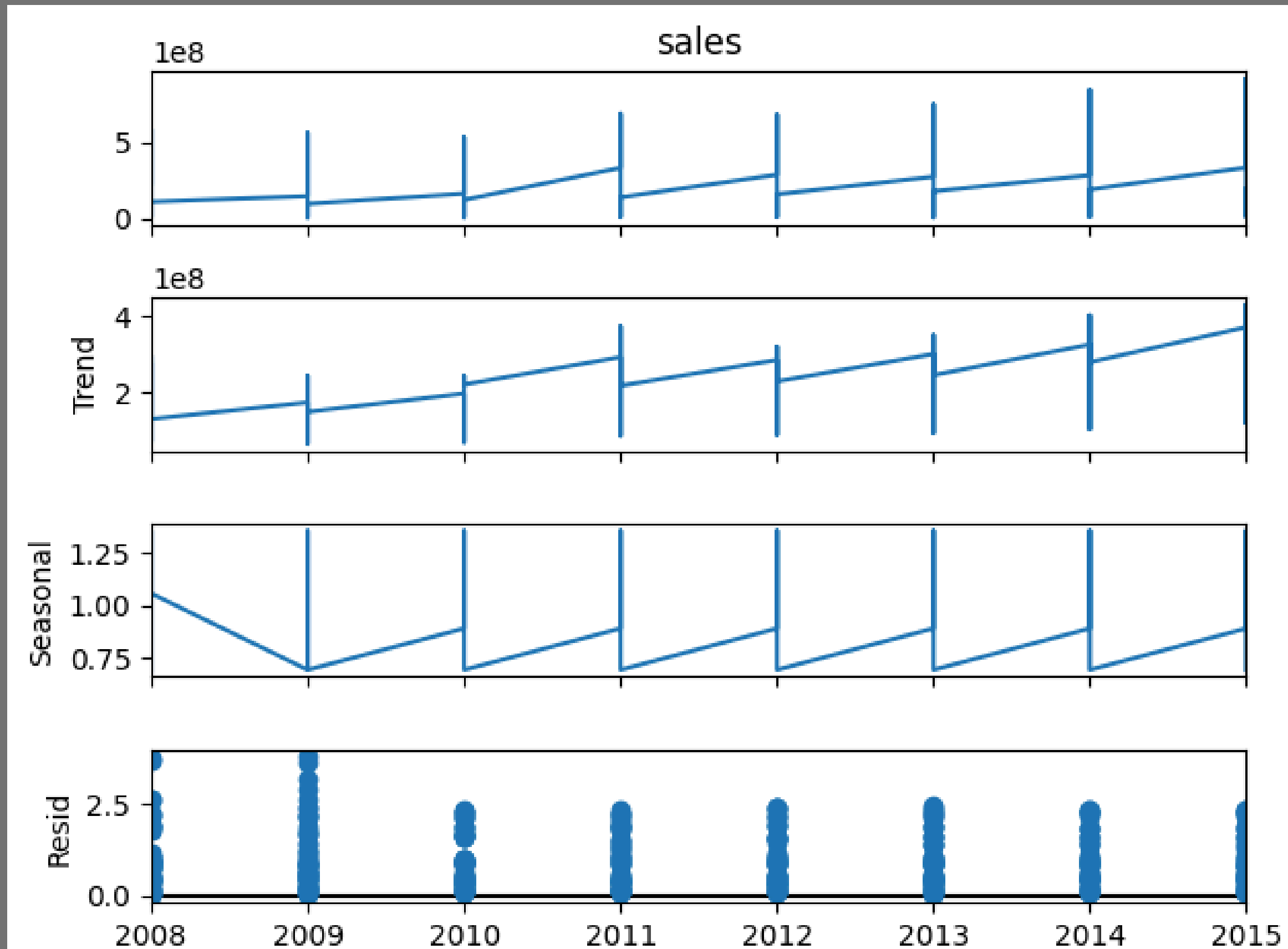




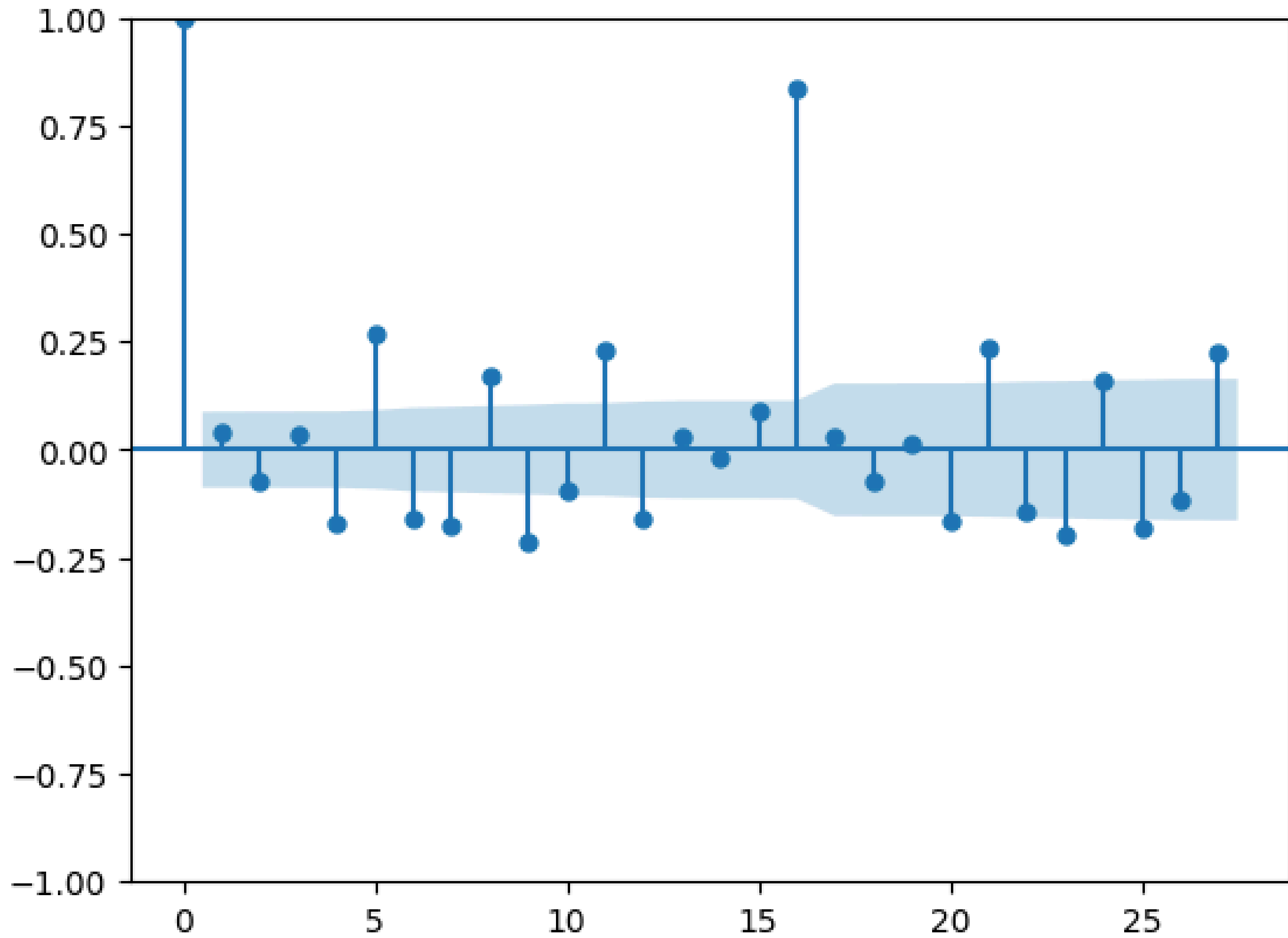
ARIMA Model: Future Sales Forecast



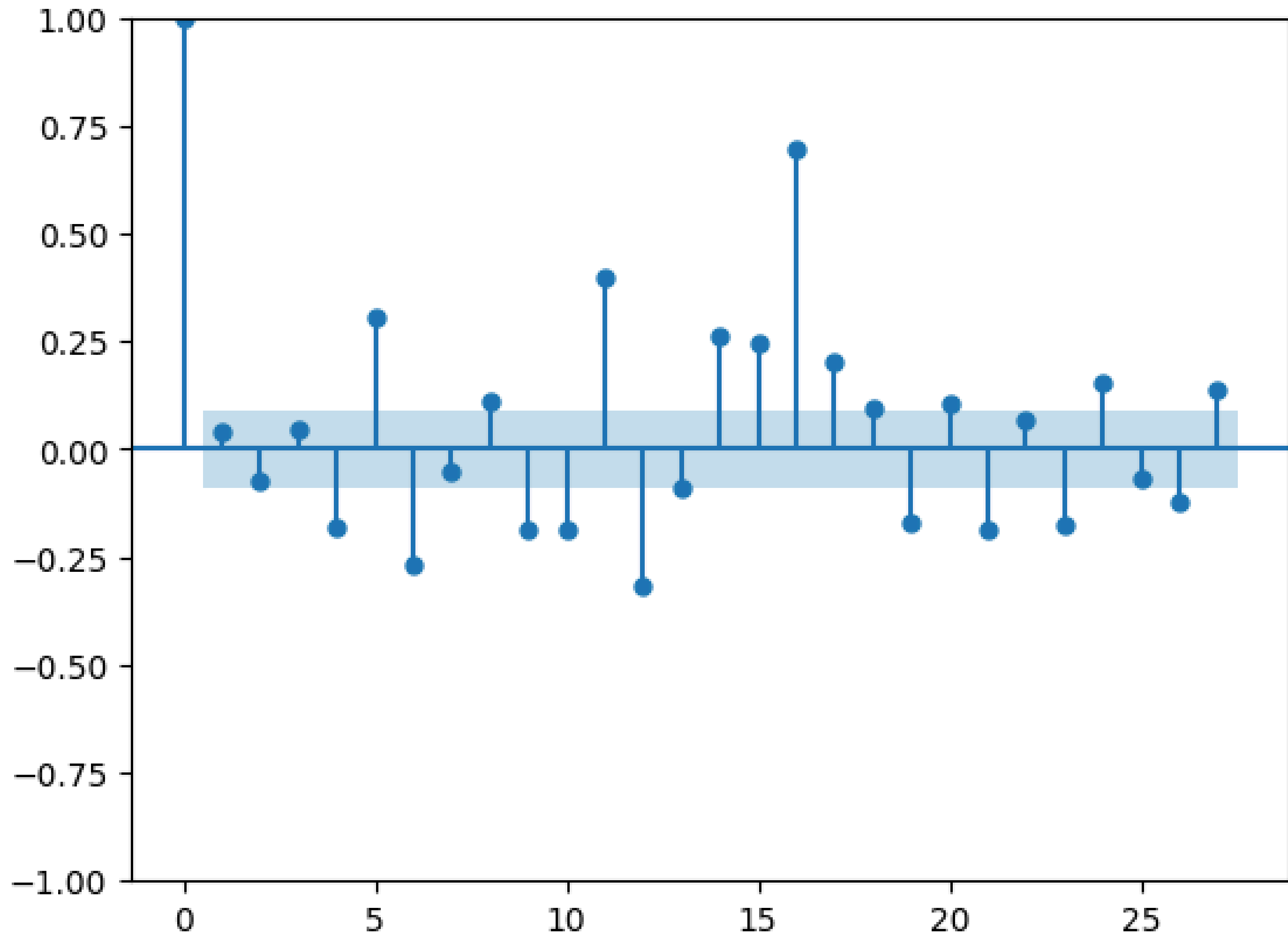
Plot of Deeper Time Series Analysis and Seasonality and Trend Decomposition



Autocorrelation



Partial Autocorrelation



Thank you

by
Shivam Anand