

# EXPLORATORY DATA ANALYSIS REPORT - RETAIL

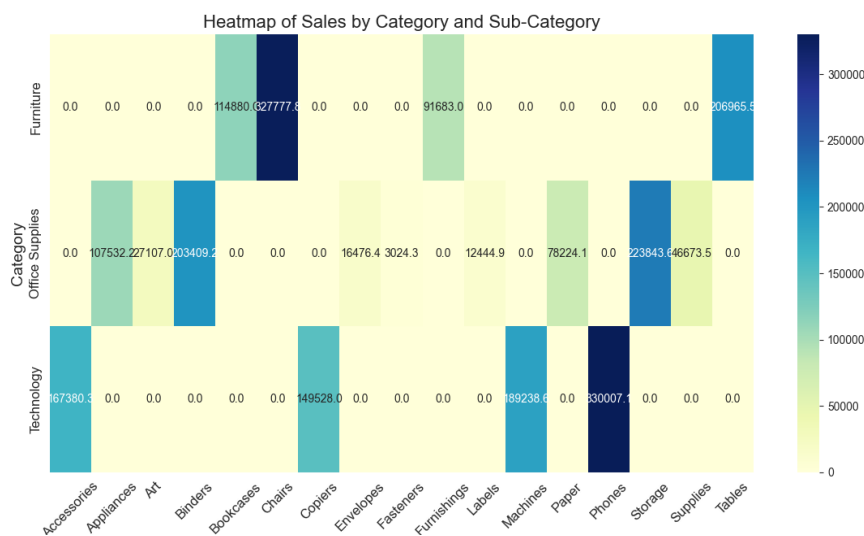
## INTRODUCTION

This report provides an exploratory data analysis (EDA) of the Sample Superstore dataset. The analysis includes sales and profit insights by category and region. This report aims to help business owners identify weak areas and opportunities for increasing profit.

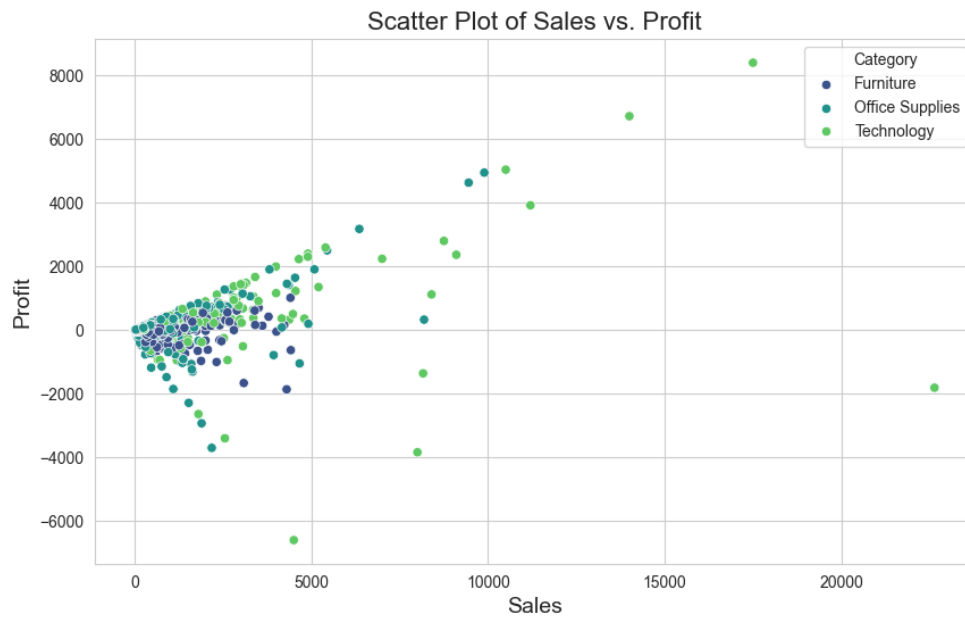
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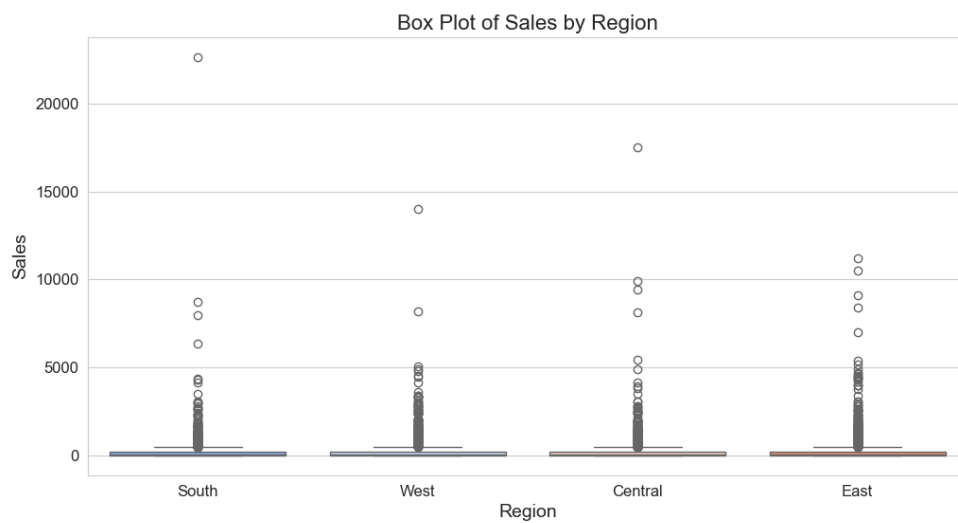
## HEATMAP OF SALES BY CATEGORY AND SUB-CATEGORY



## SCATTER PLOT OF SALES VS. PROFIT

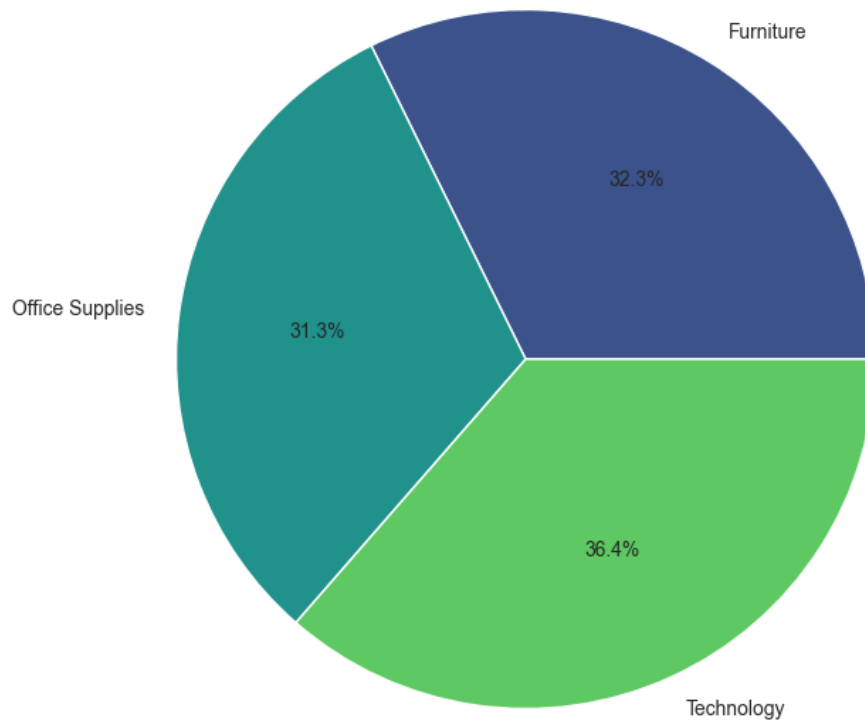


## BOX PLOT OF SALES BY REGION



## PIE CHART OF SALES BY CATEGORY

Proportion of Sales by Category



## CONCLUSION

Recommendations:

- Consider focusing on categories and regions with high profits.
- Investigate categories and regions with low or negative profits to identify and mitigate issues.

## APPENDIX

This section provides detailed data summaries and additional insights.

Summary Statistics:

	Postal Code	Sales	Quantity	Discount	Profit
count	9994.000000	9994.000000	9994.000000	9994.000000	9994.000000
mean	55190.379428	229.858001	3.789574	0.156203	28.656896
std	32063.693350	623.245101	2.225110	0.206452	234.260108
min	1040.000000	0.444000	1.000000	0.000000	-6599.978000
25%	23223.000000	17.280000	2.000000	0.000000	1.728750
50%	56430.500000	54.490000	3.000000	0.200000	8.666500
75%	90008.000000	209.940000	5.000000	0.200000	29.364000

max 99301.000000 22638.480000 14.000000 0.800000 8399.976000

Missing Values:

Ship Mode 0  
Segment 0  
Country 0  
City 0  
State 0  
Postal Code 0  
Region 0  
Category 0  
Sub-Category 0  
Sales 0  
Quantity 0  
Discount 0  
Profit 0  
dtype: int64

Data Types:

Ship Mode object  
Segment object  
Country object  
City object  
State object  
Postal Code int64  
Region object  
Category object  
Sub-Category object  
Sales float64  
Quantity int64  
Discount float64  
Profit float64  
dtype: object