

SUPERSTORE SALES ANALYSIS

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INTRODUCTION

Data Cleaning

Data Exploration

Analysis questions and
recommend solutions

DATA CLEANING

First we started by understanding the data and knowing what each column means, Then we started cleaning the data.

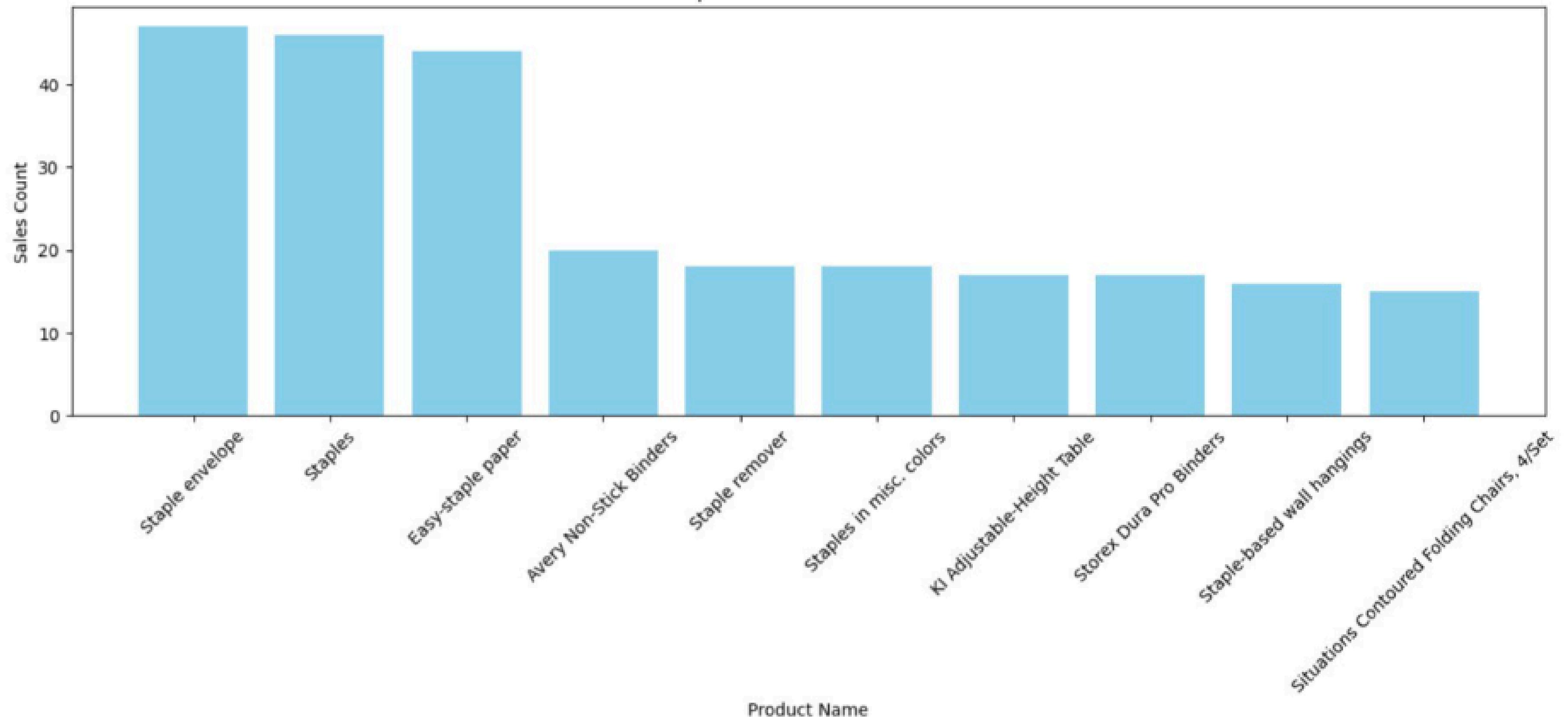
First we checked on null values in all columns and we found only 11 null values so we removed them as they will not affect on the data, then we removed the duplicated rows and we splitted the order date column by months and years to get more useful insights.

DATA EXPLORATION

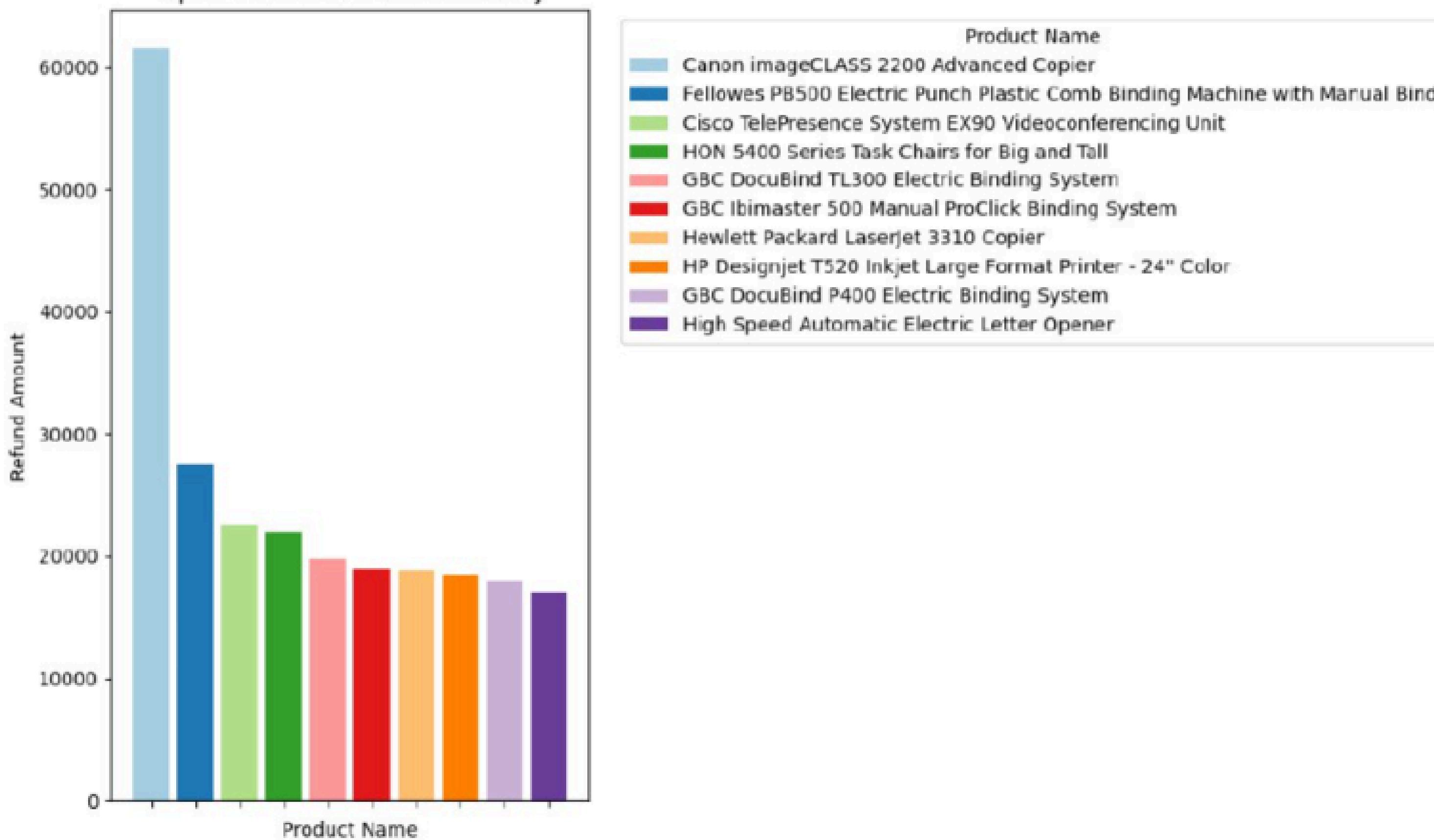
First we analysed the data by the selling products

- Top sales by category
- Top sales by sub-category
- Top 10 Most sold products
- Top 10 highest revenue from the products.
- Top selling products by category

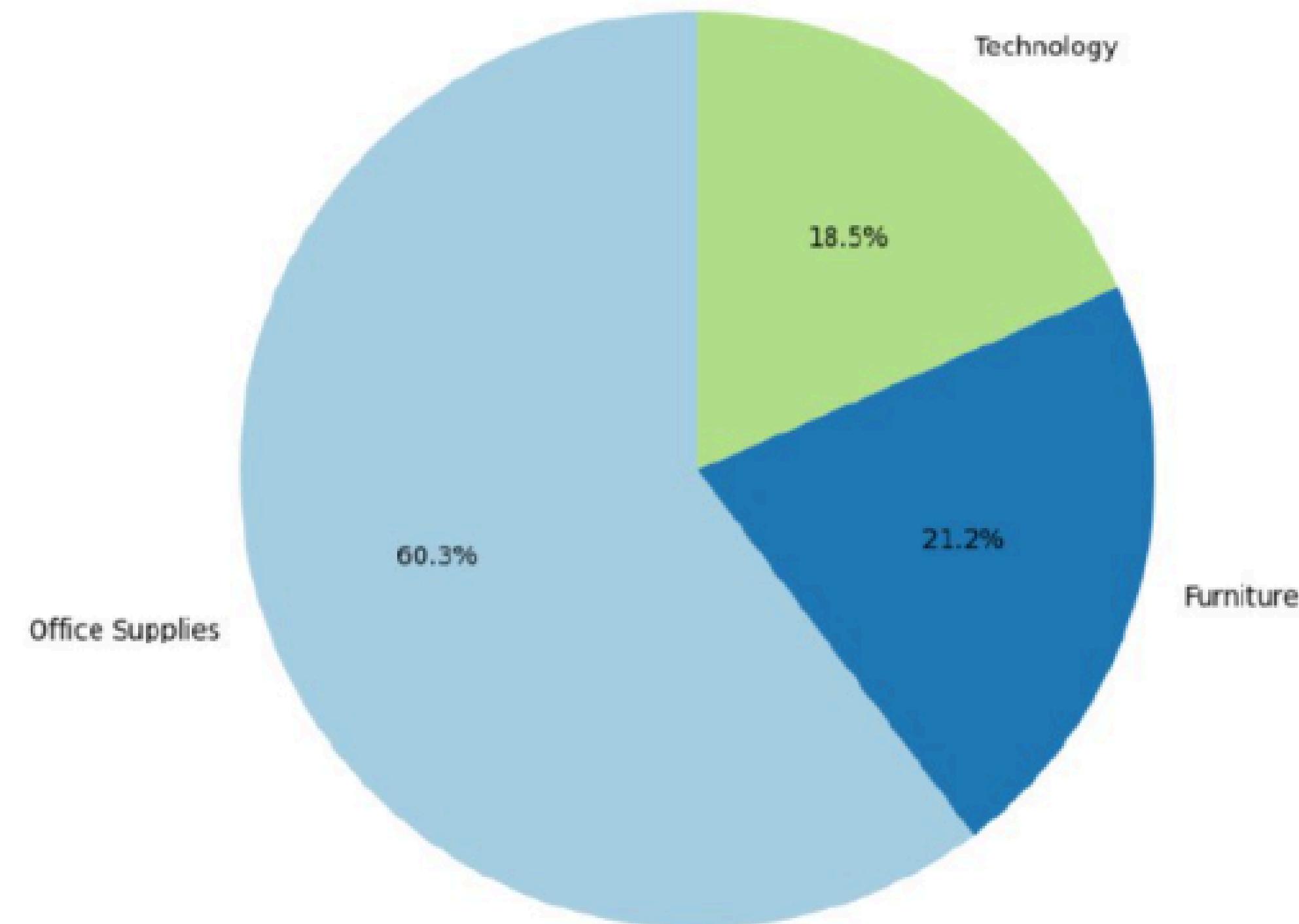
Top 10 Most Sold Products



Top 10 Products that made money



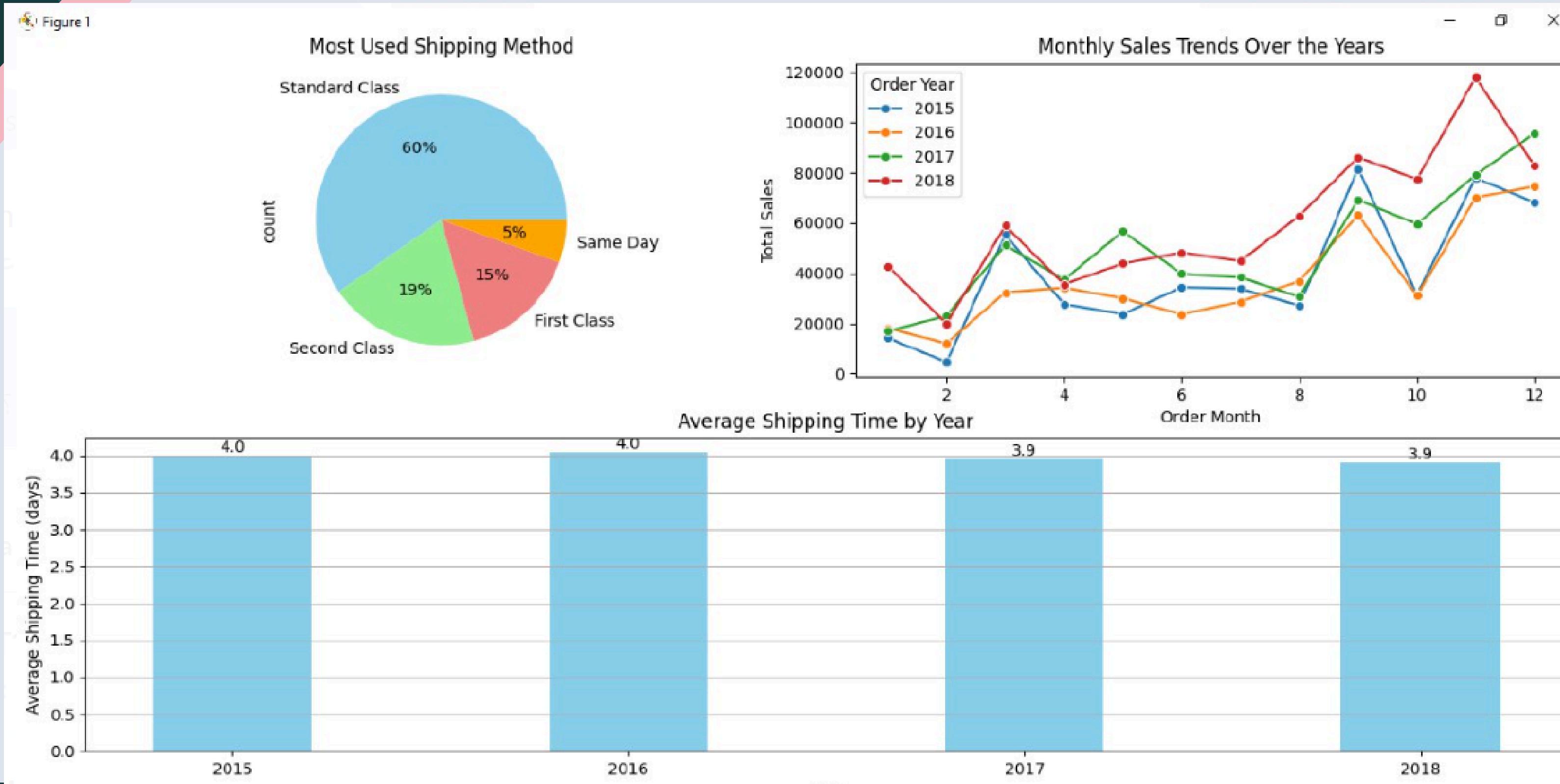
Top Selling Product Categories



THEN SOME ANALYSIS FOR THE SHIPPING AND TIME PERFORMANCE

- Most used shipping method
- Average shipping time by year
- Monthly sales trends over the year

Simple chart for each the perevious data.

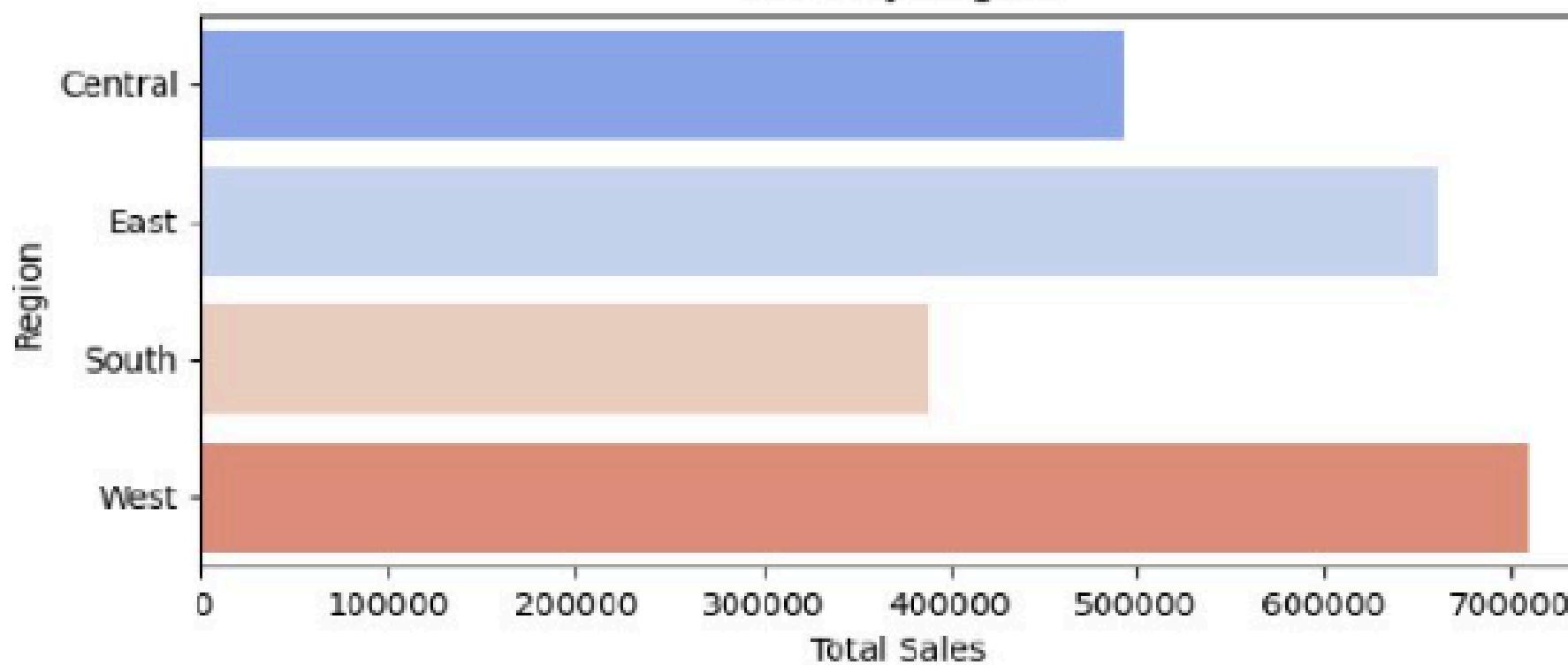


Some exploration for the data depending on the geography

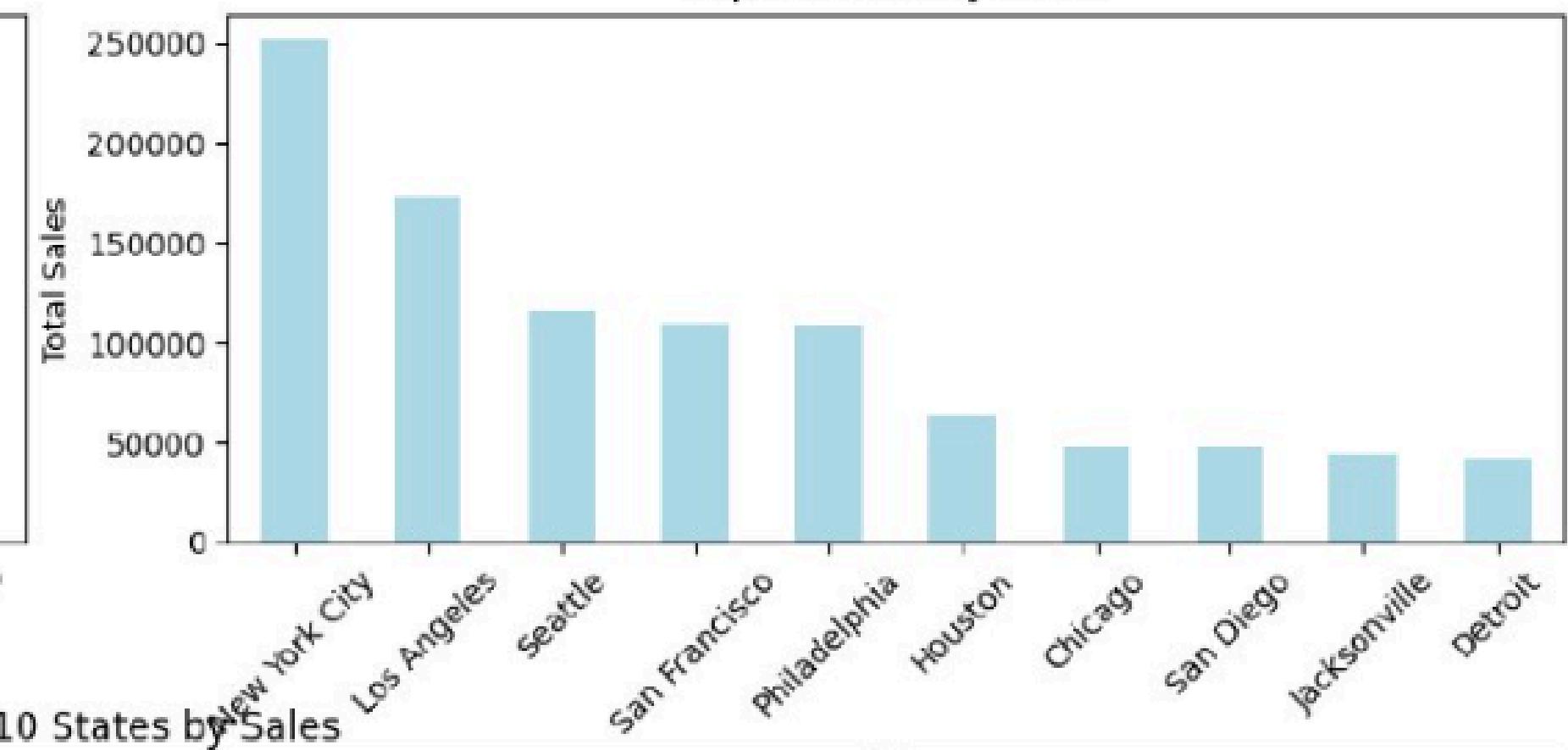
- Top region by the total sales
- Top 10 cities by sales
- Top 10 states by sales

Figure 1

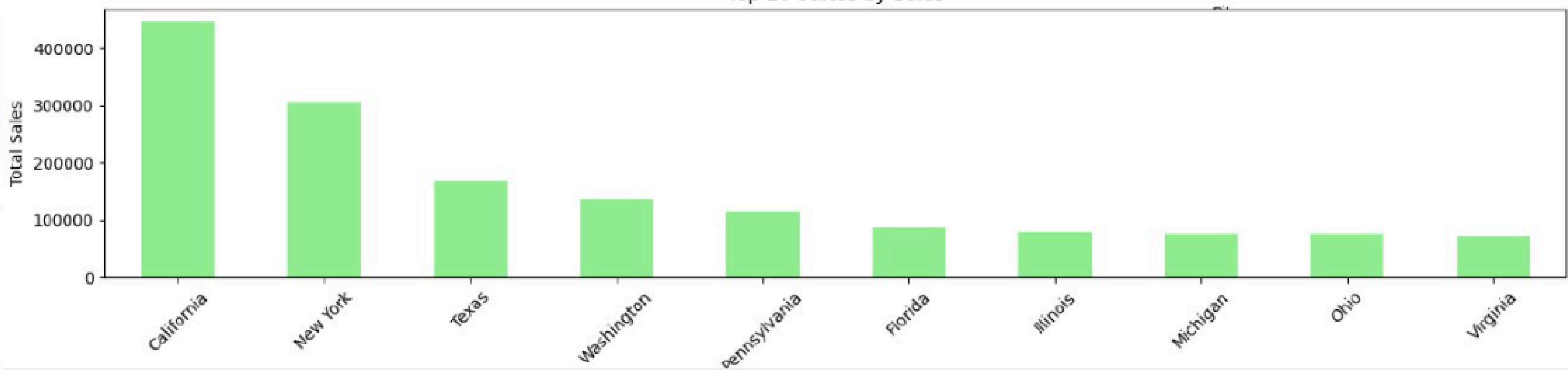
Sales by Region



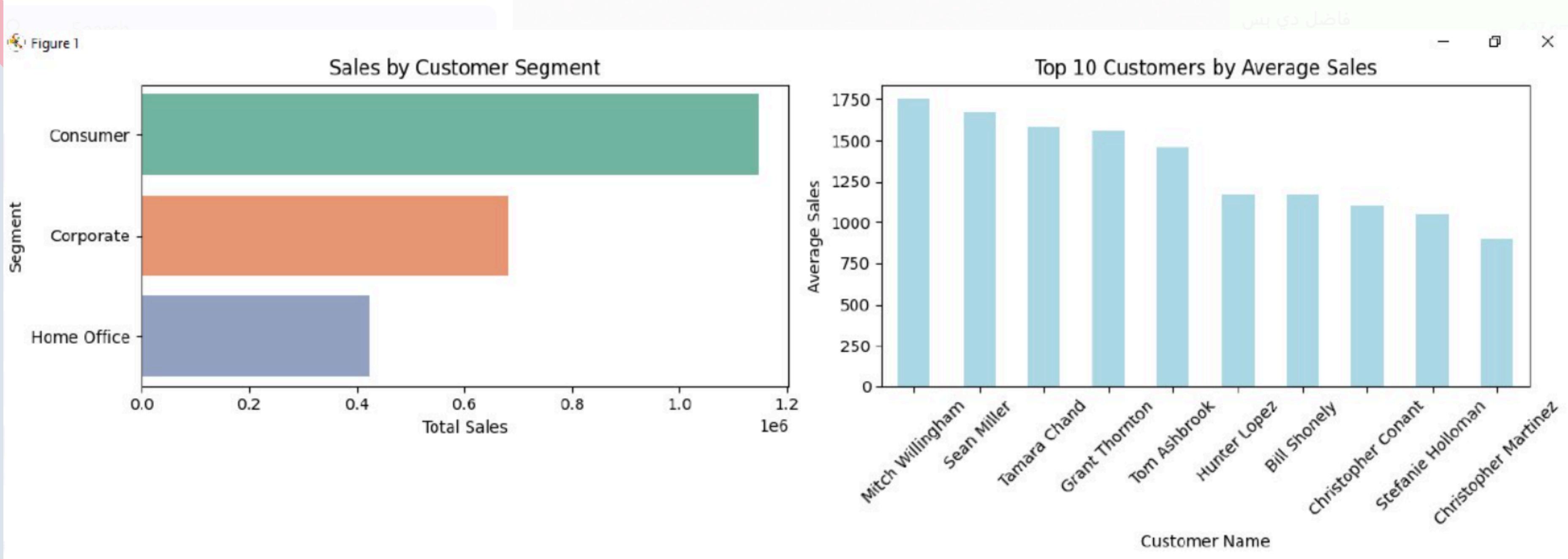
Top 10 Cities by Sales



Top 10 States by Sales



THE EXPLORATION FOR THE DATA BY THE CUSTOMERS AND ORDERS

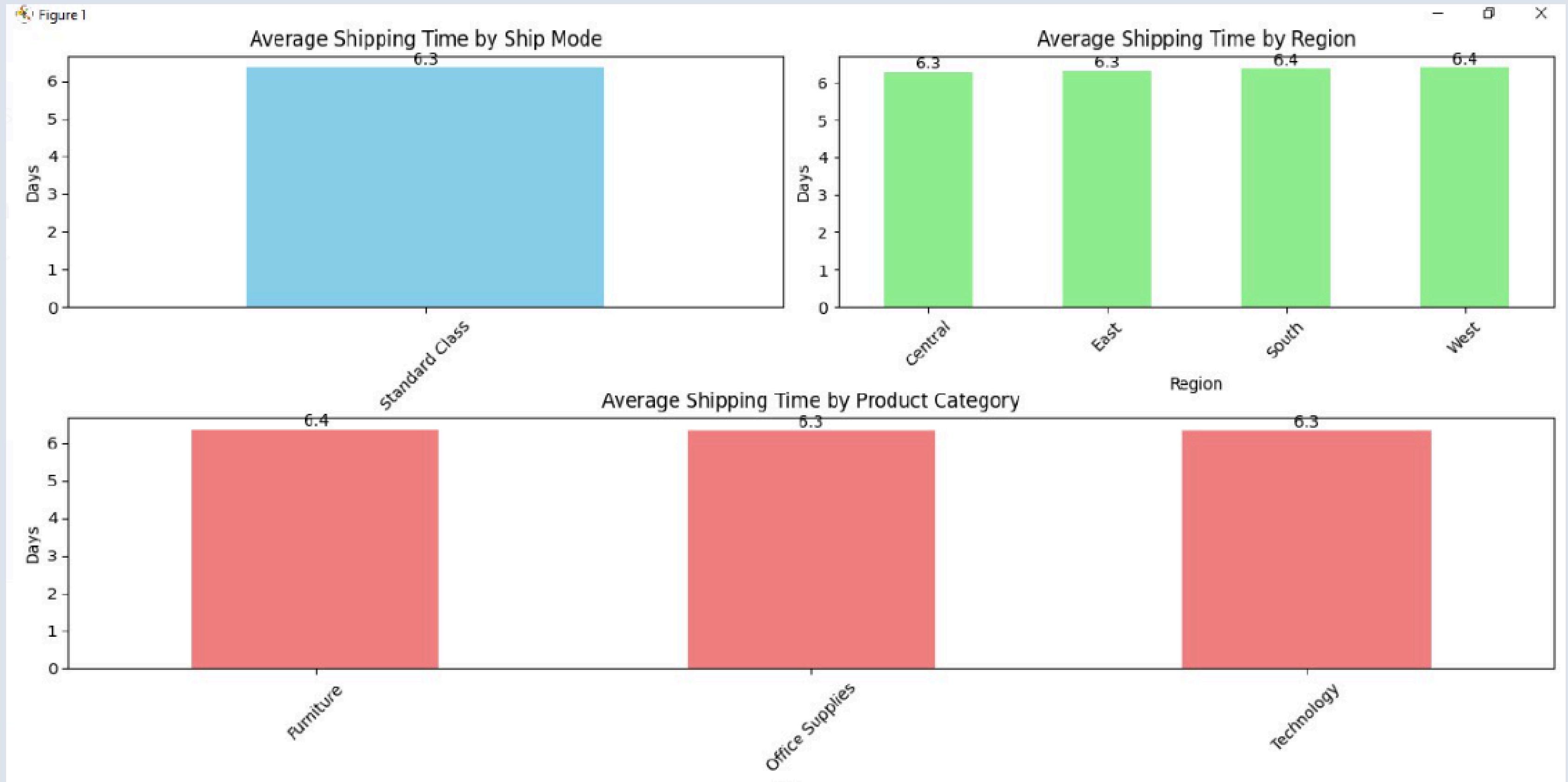


DATA ANALYSIS

Why does the orders got delayed during shipping?

We answered this question by calculating the average shipping time by shipping mode and we found out that standard shipping class takes the longest time of days, then we go deep to know if the region or the product category also depends on the delays or not? and here what we found.

AS WE CAN SEE THAT AVERAGE SHIPPING TIME IN STANDARD CLASS TAKES MORE THAN 5 DAYS
AND THE REGION OR CATEGORY DOES NOT DEPEND ON THE SHIPPING TIME



Why some categories have more sales than others

After we did some analysis as follows

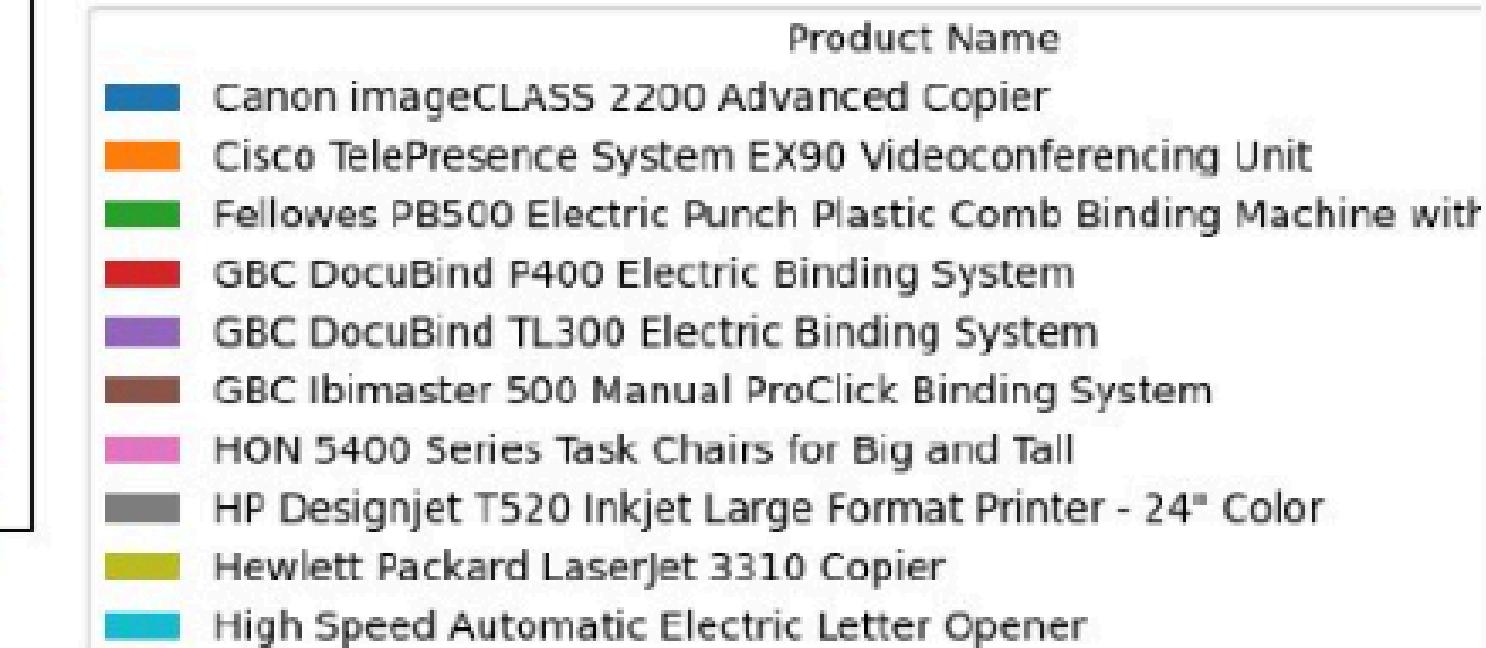
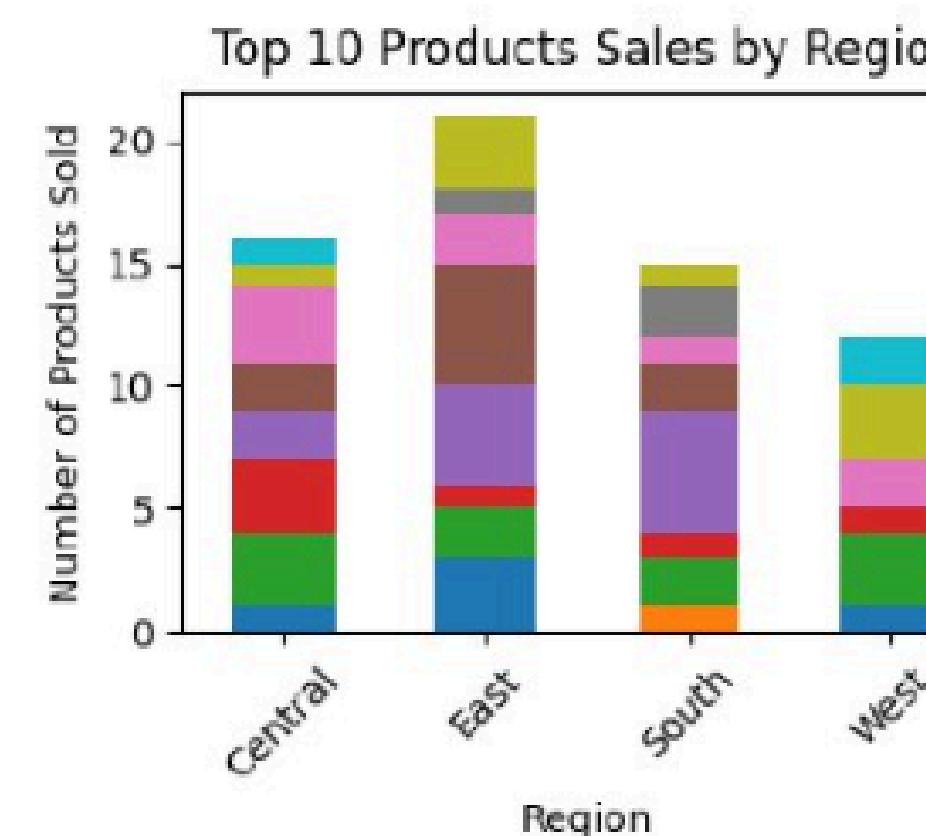
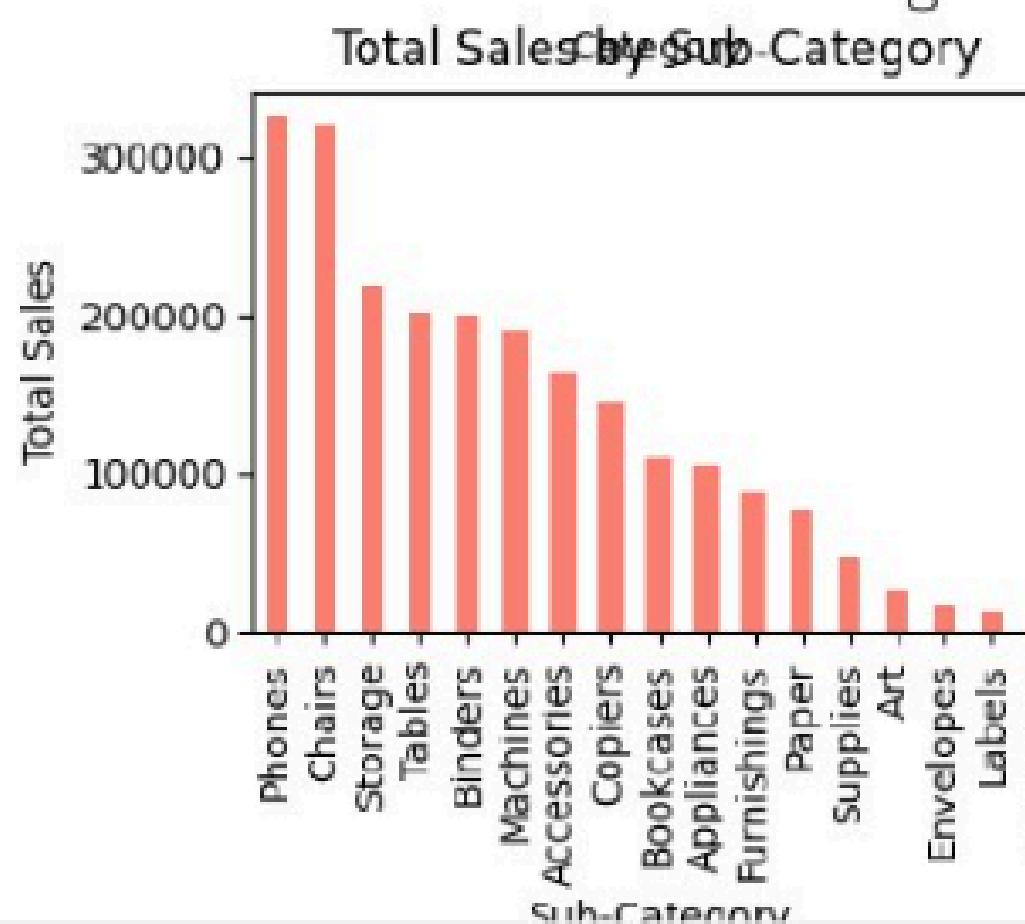
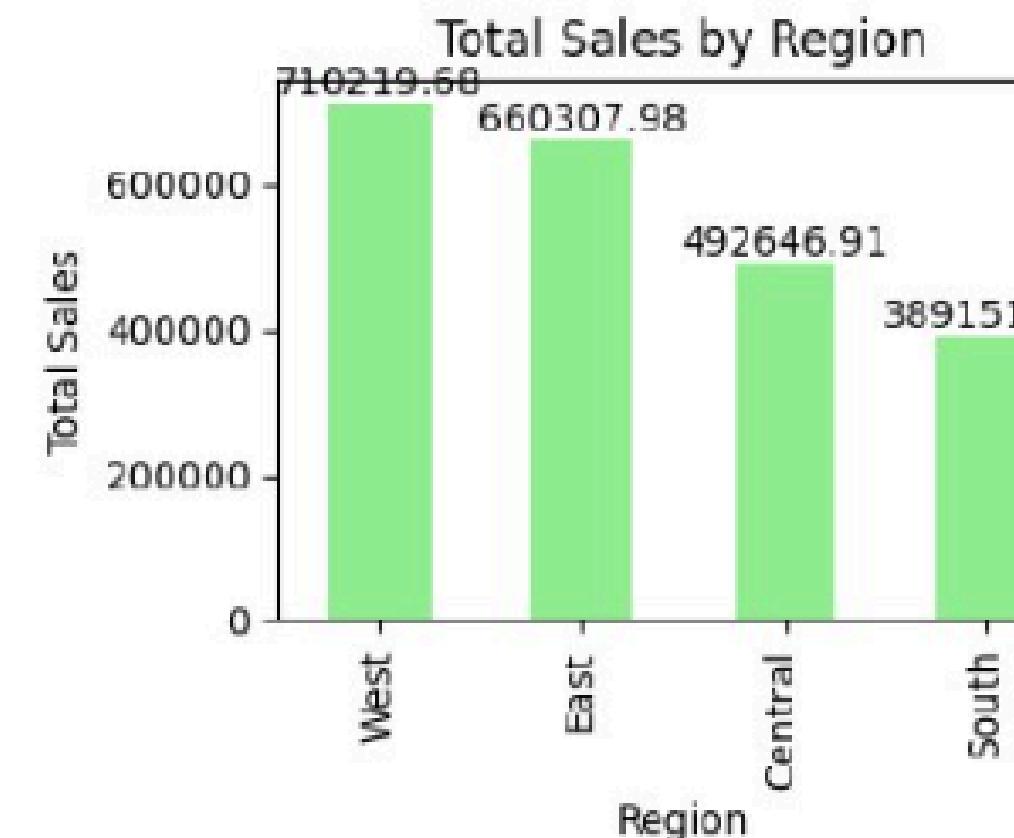
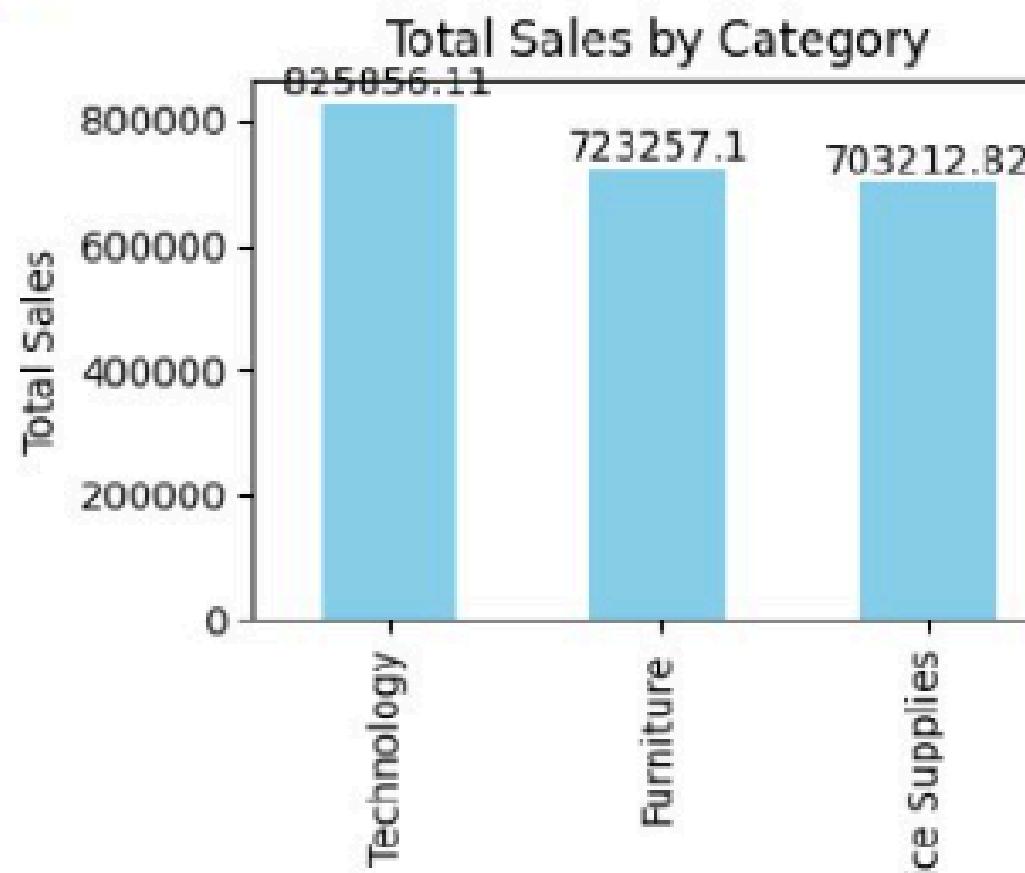
- Top sales by each category?
- Top sales by region
- Top sales by sub-category
- Top 10 products saled by region

We found out that technology is the most selling category and specifically phones are the most sold sub categories.

And the West is the most region that got sellings, while in east the top 10 products saled are their.

And here are the charts for the previous analysis

Figure 1



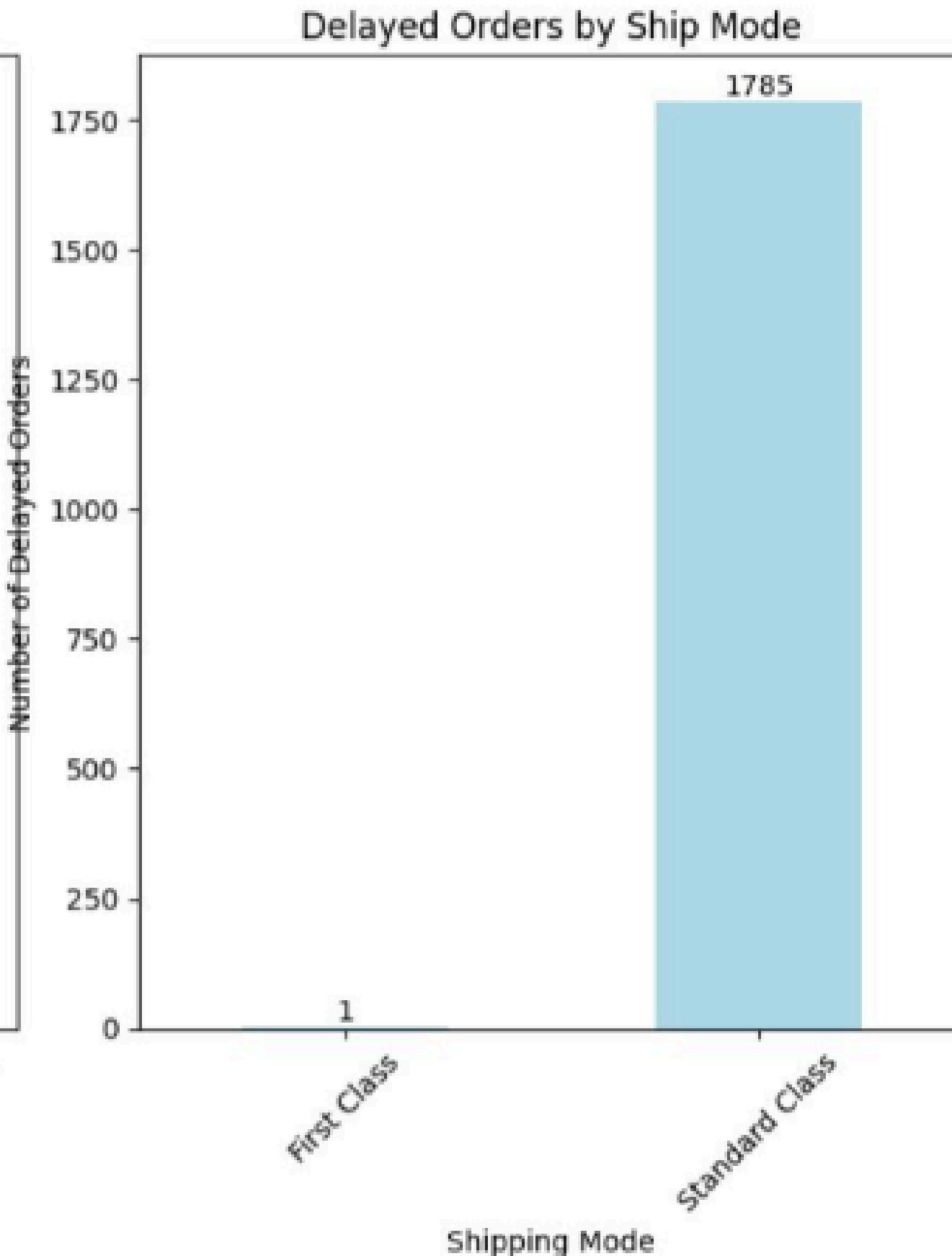
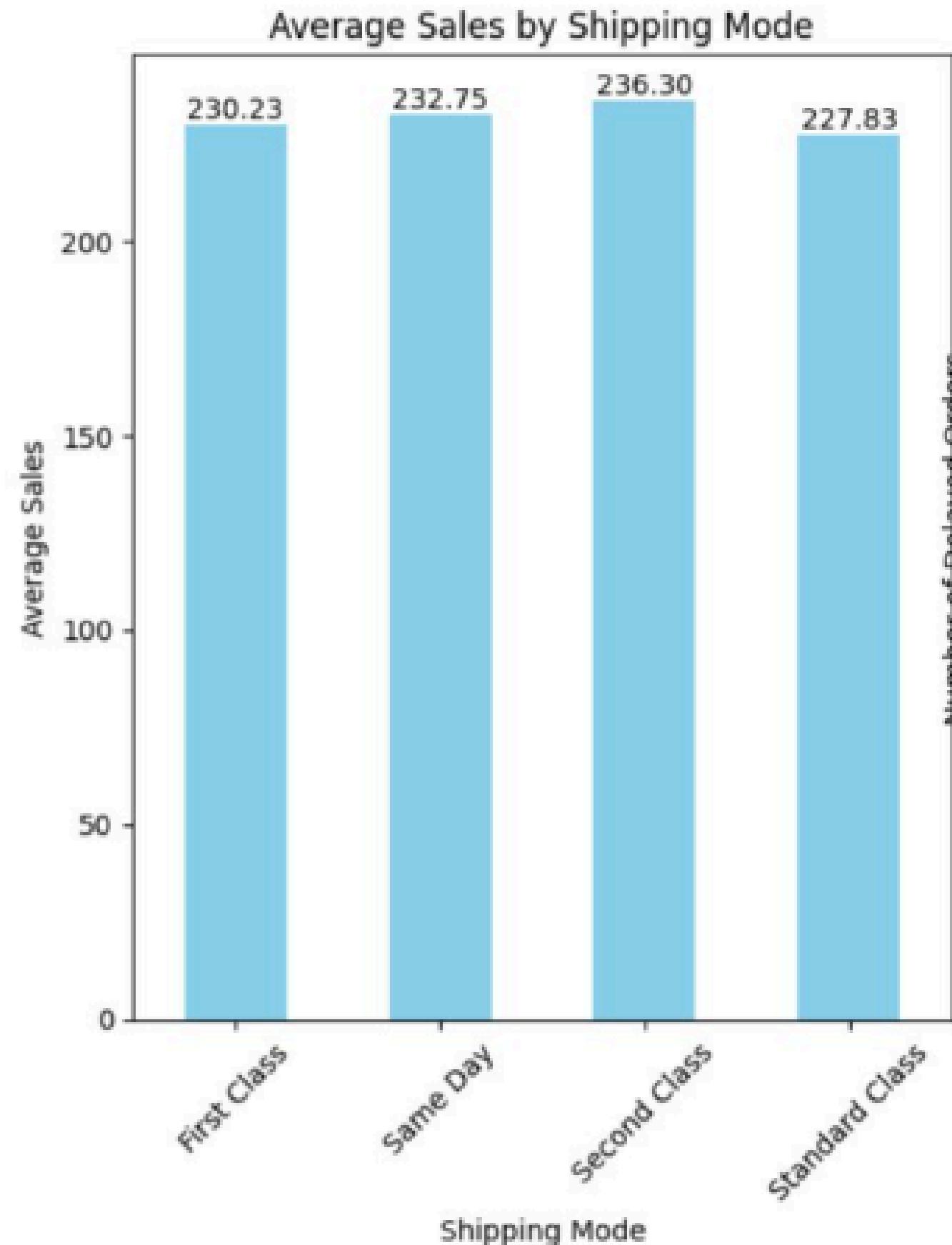
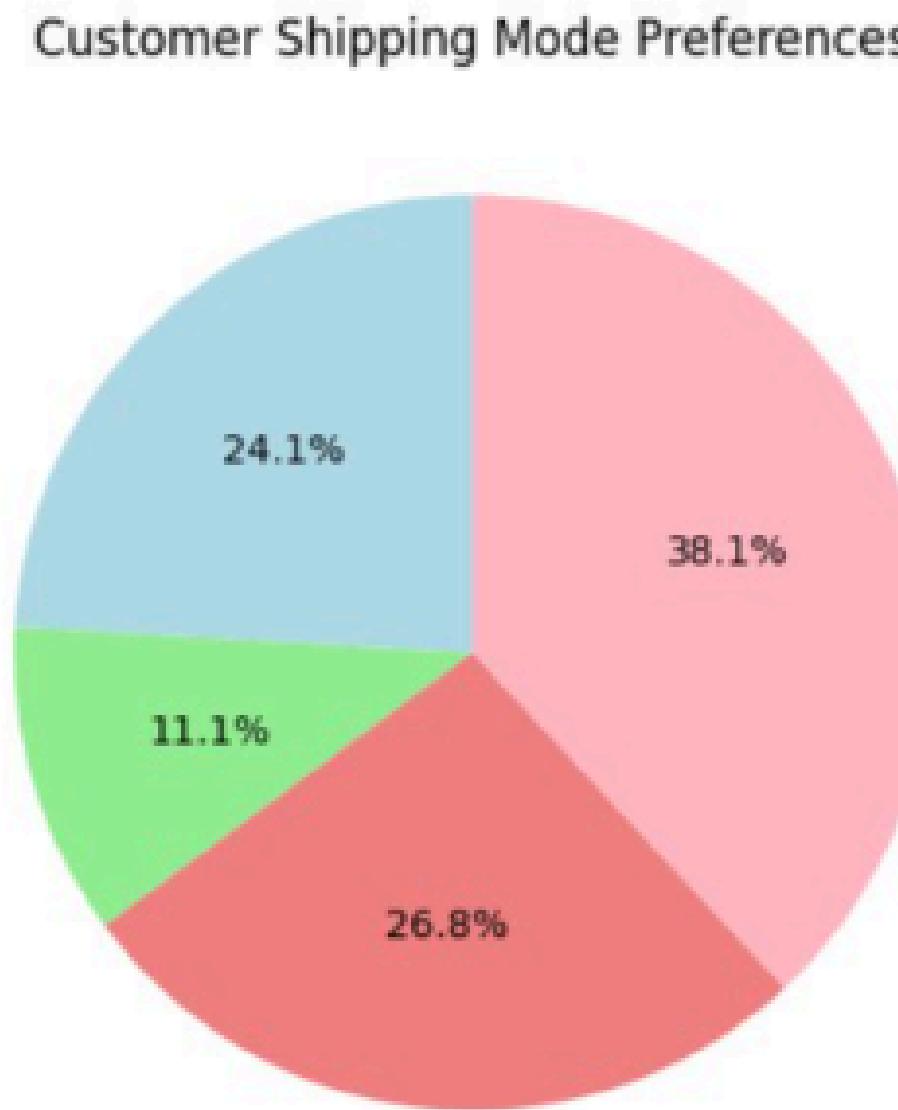
Since we agreed that the standard class shipping mood is the most type that delay.

Time to know how much does people use it ,
So we analysed the data to see customer shipping mode preference, the average sales by shipping mode and the count of delayed orders by shipping mode.

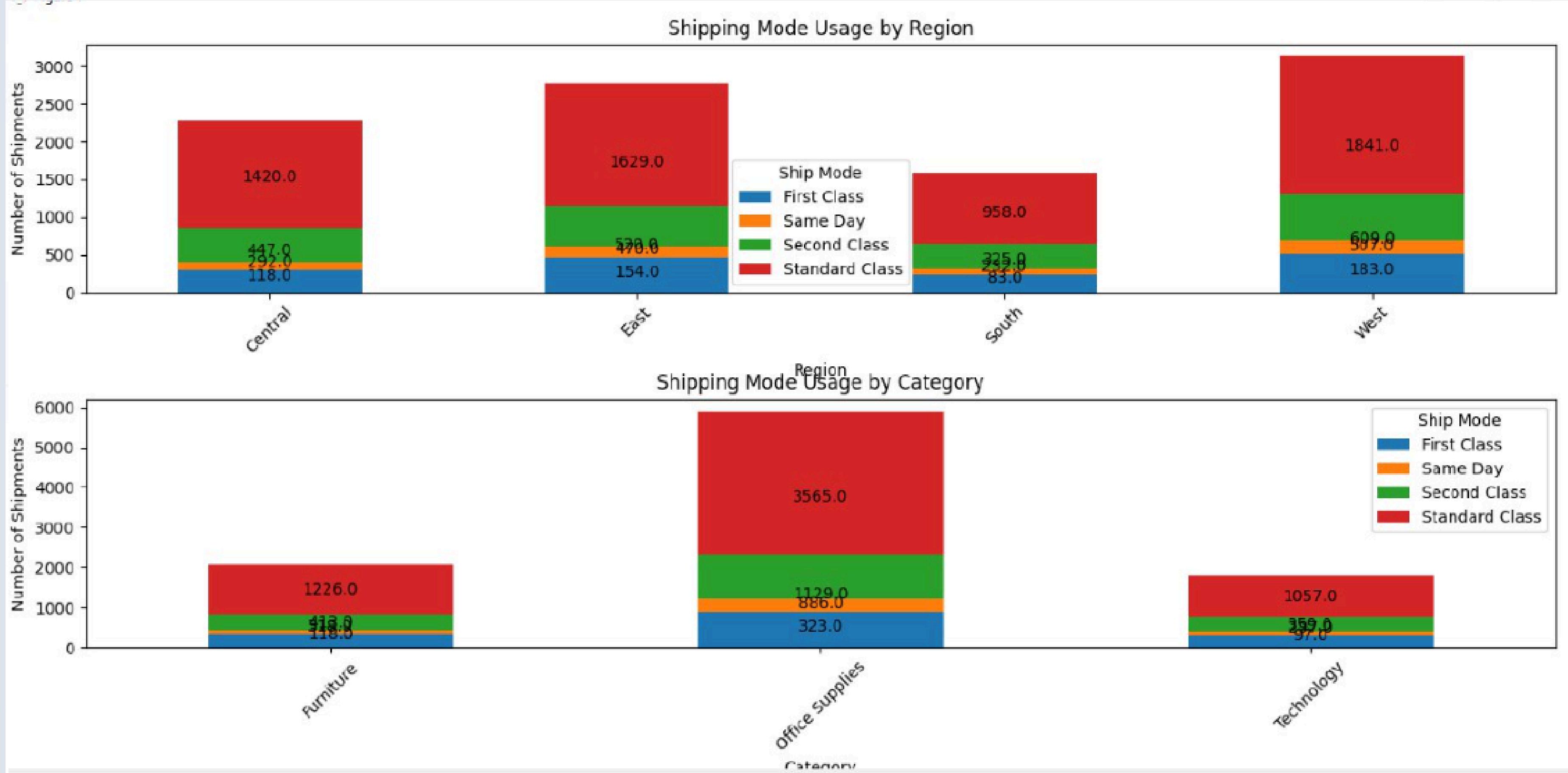
We found out the standard calss are the most used type due to its low cost compared to other classes.

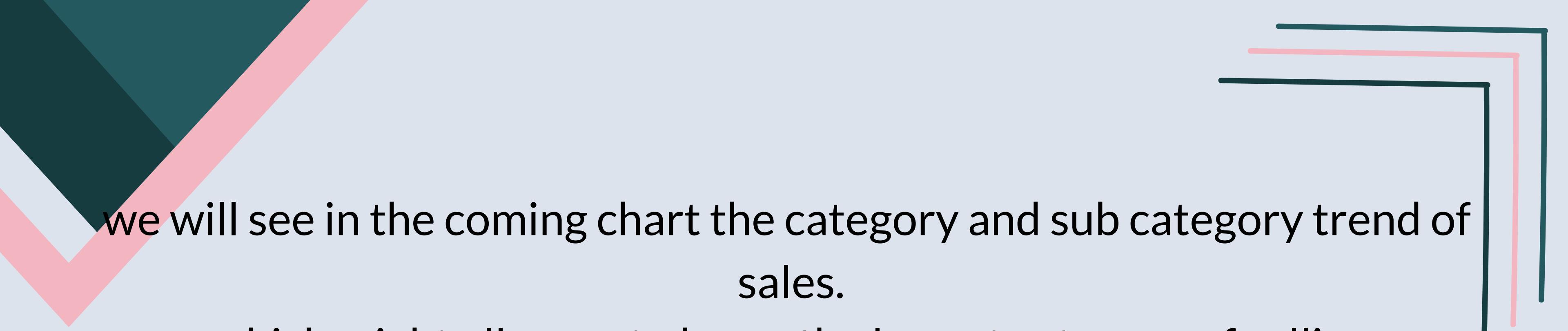
Figure 1

- X



Then we made charts to see the shipping mode usage for each region and category.





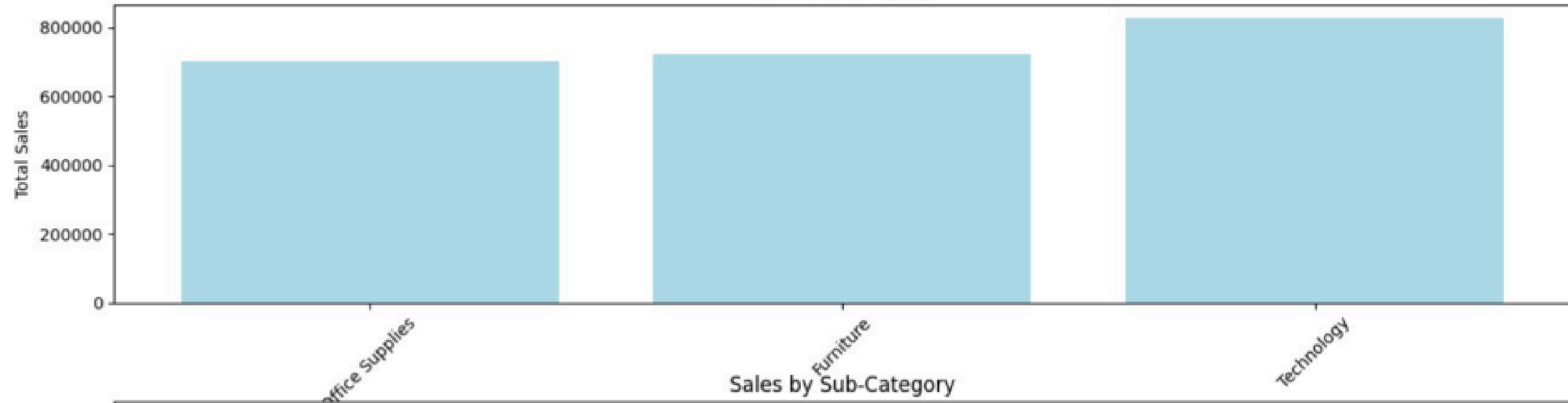
we will see in the coming chart the category and sub category trend of sales.

which might allow us to know the lowest category of selling and the lowest sub category of selling and indeed the top for both category and sub category,

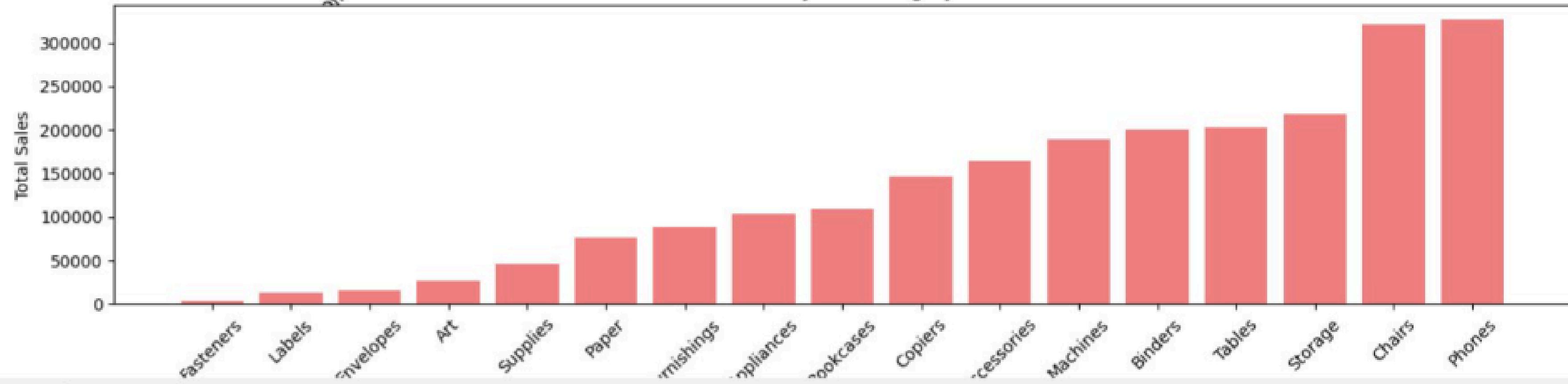
And for that charts we made some recommendations based on the data we had and that will be discussed later

Figure 1

Sales by Category



Sales by Sub-Category



RECOMMENDATIONS

Recommendation 1

Since we spotted the problem that shipping delays comes from people choosing standard class over any other class so we can recommend doing stores in the cities with most selling ratio or any other city that would be easy to make a store in and that store could help mainatin the selling process and the shipping delays since many of people might choose the store collect over the standard shipping mode we might as well do a survey to people to see their satisfaction about the shipping as they might choose the standard mode when they know there might be a delay and they do not have a problem with that.

Recommendation 2

We also noticed from the previous chart that there are some sub categories or products that are low in selling

So, first of all we gotta ask why are these products low in selling to answer this we can directly ask customers to know if they are even interested in buying that kind of stuff from that store or they think they prefer it more to buy it on site if people did not have the problem of buying such stuff from the online store then we recommend doing much more marketing on these sub categories, or if it is not then we can just stop the loss of making the least in selling as long as they are not profitable

THANK YOU

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