

## Store Sales

Team Name	Work
Zeyad Mohamed Ali Shokry	Analysis Questions, Insights
Demiana Ayman Gerges	Processing data
Mohamed Makki Abdelaal	Processing data
Mohamed Hamdy El Sayed	Visualization
Rania Maher Nageh	Analysis Questions, Insights

- **NoteBook Work:**

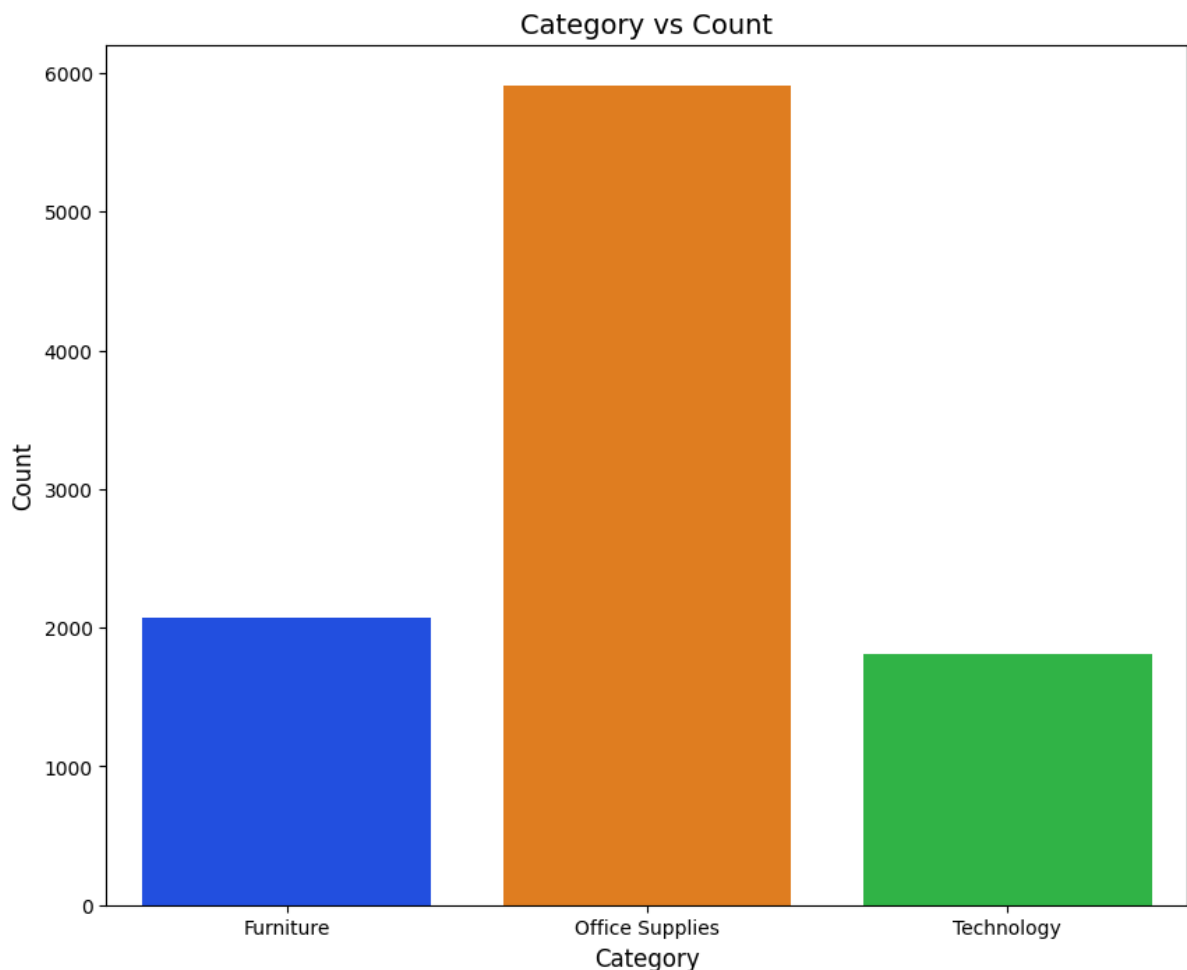
- **Read Data**
- **Get some information about the data**
- **Data Cleaning**
  - Remove Duplicates
  - Get the postal code of Vermont state from google  
-----> 05401 , and fill the nulls by it
  - Change the type of Order Date and Ship Date columns from object to date
  - Change the type of Postal Code column from float to integer

- **Insghits:**

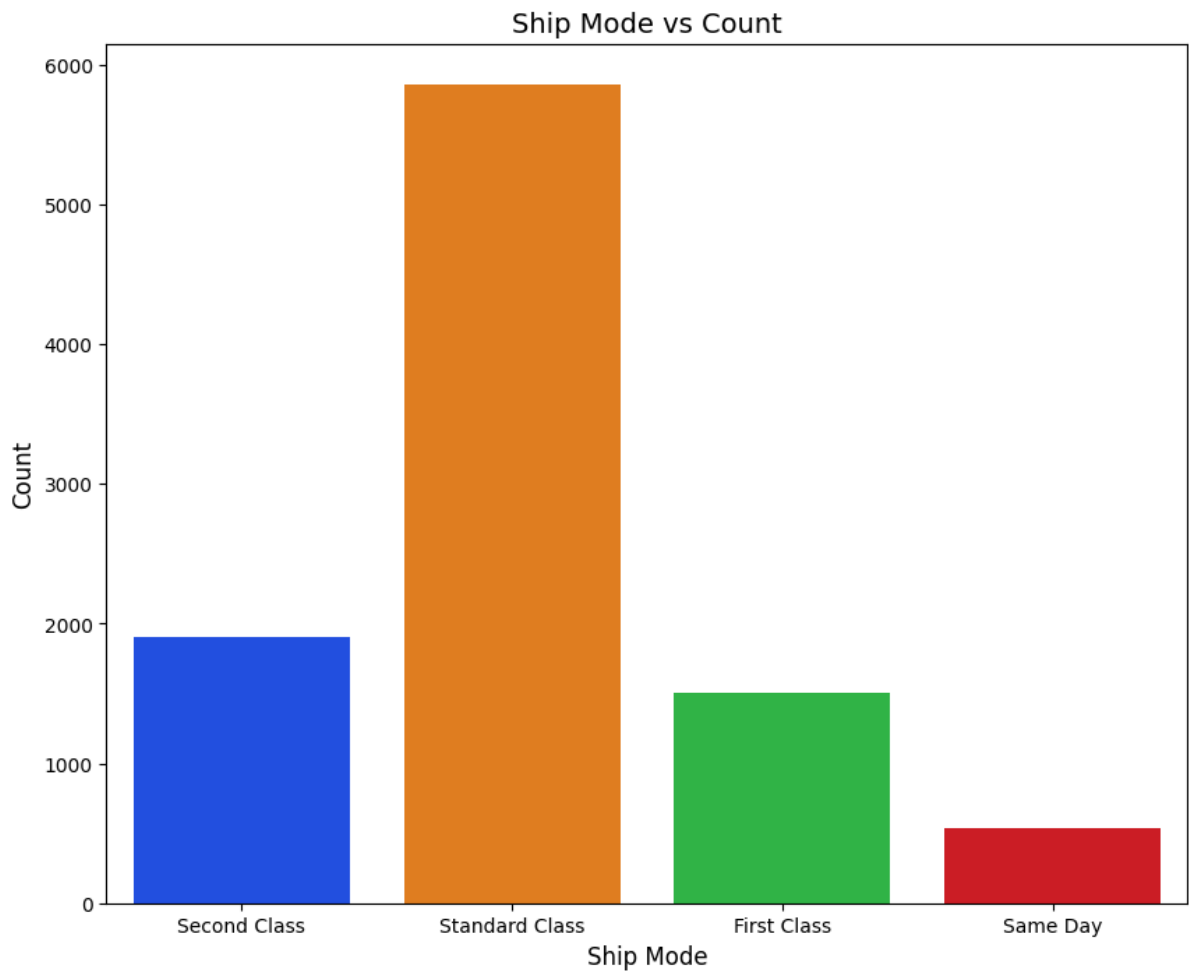
- 1- Top ten city by sale
- 2- Top ten States by sale
- 2- plot the region with highest sales of products
- 3- the top 10 products
- 4- the lowest 10 products
- 5- the highest category
- 6- best category with sales

- 7- the year\_order\_date with sales -> product
- 8- Sales Distribution by Customer Segments
- 9- Top Spenders Analysis and Shipping Mode Distribution -> targets products for any spender type
- 10- analysis Region By Ship mode(classes)
- 11- how long the product take (ship - order) date -> relationship with sales

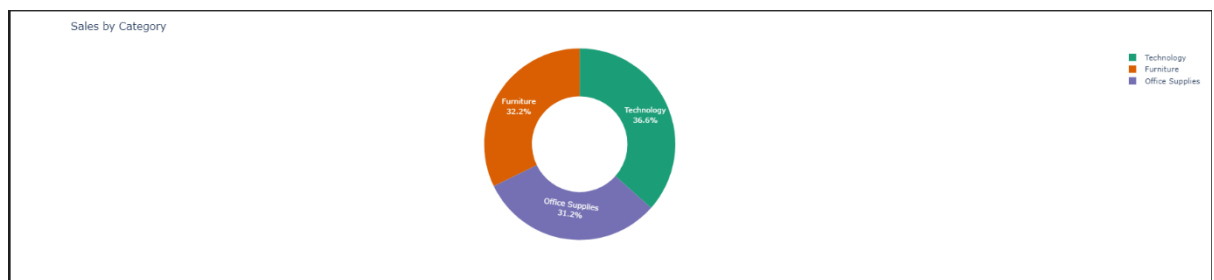
- **Visualization and Results:**



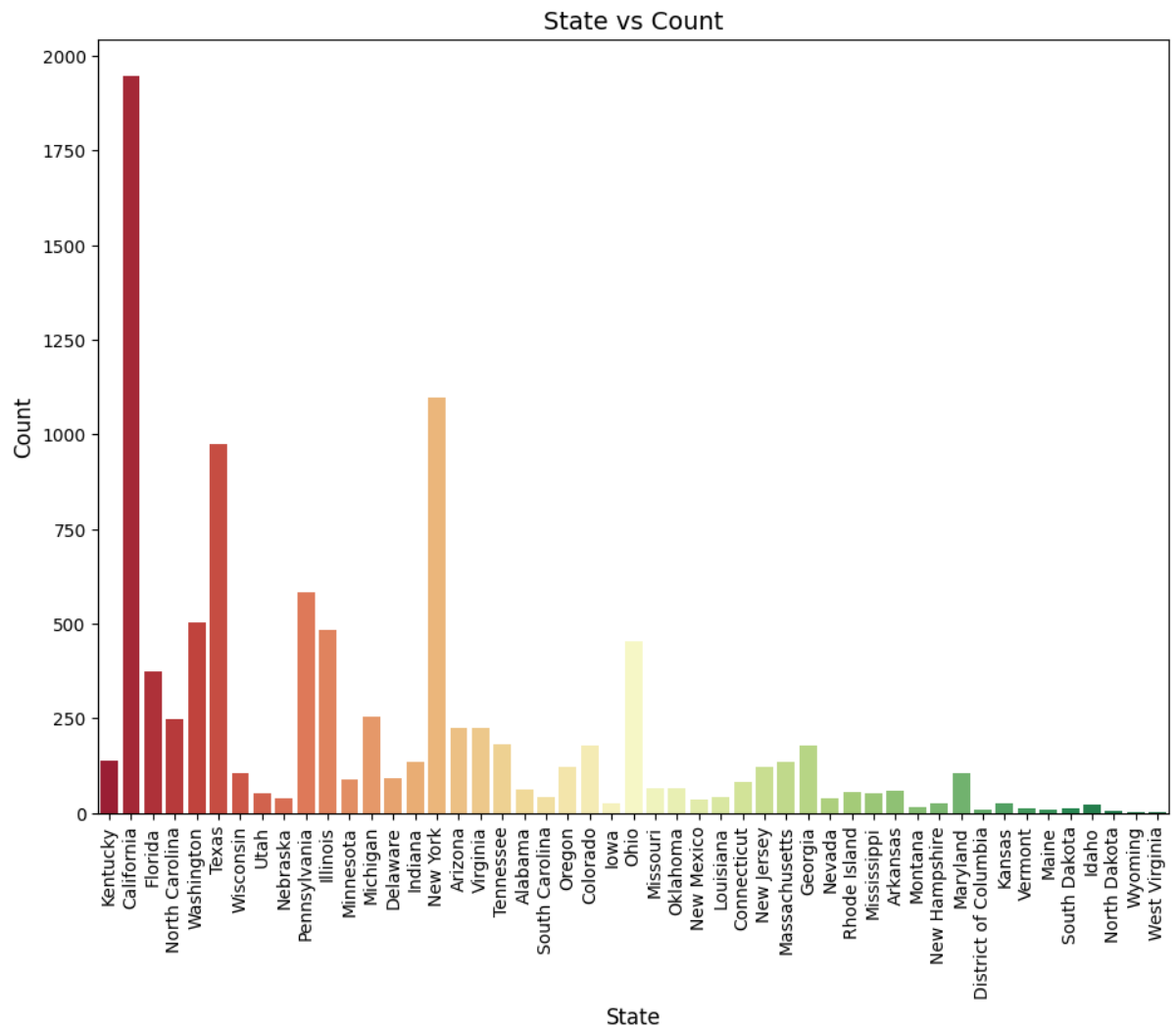
Result : Most of the Orders in Category are Office Supplies



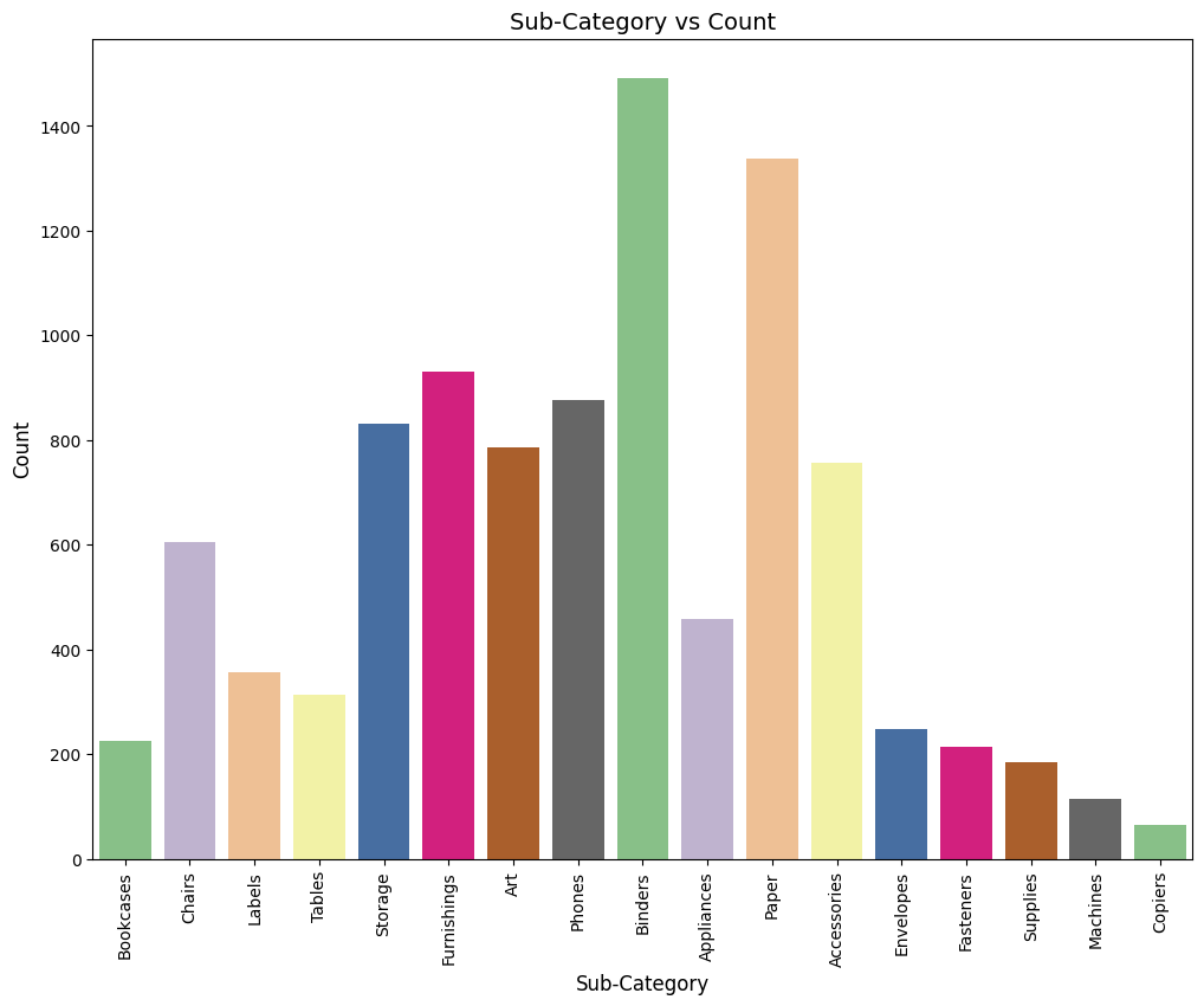
+ Result : Ship Mode of most of the Orders is Standard Class



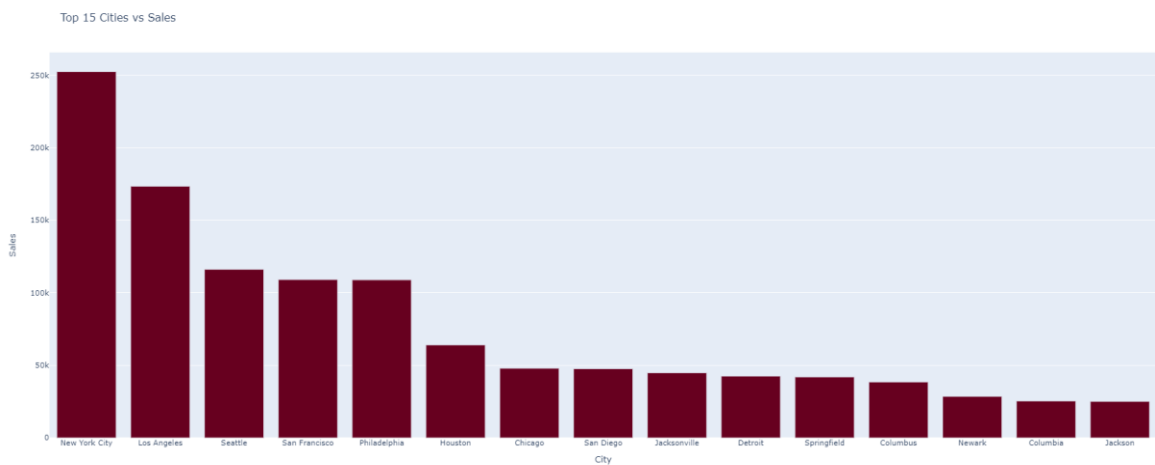
+ Result : Most of the Sales are from Technology Products



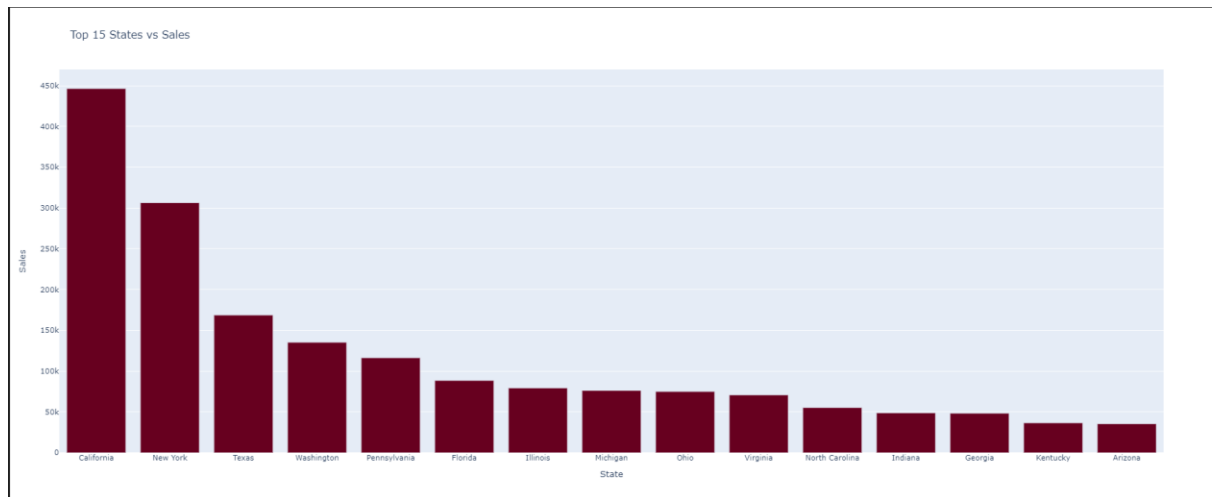
Result : Most of the Orders are from California and New York States




Result : Most of the Orders in Sub\_Category are Binders and Papers

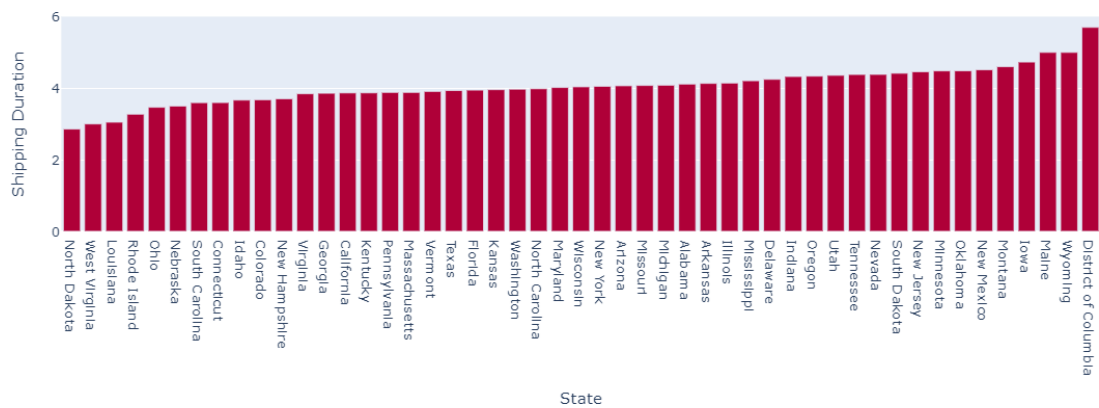


Result : Most of the Sales are from New York City and Los Angeles

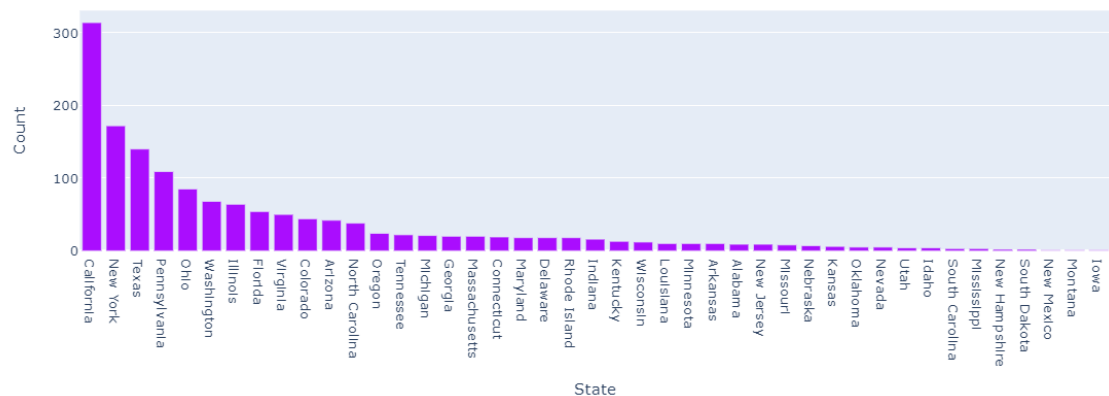


 **Result :** Most of the Sales are from California and New York States

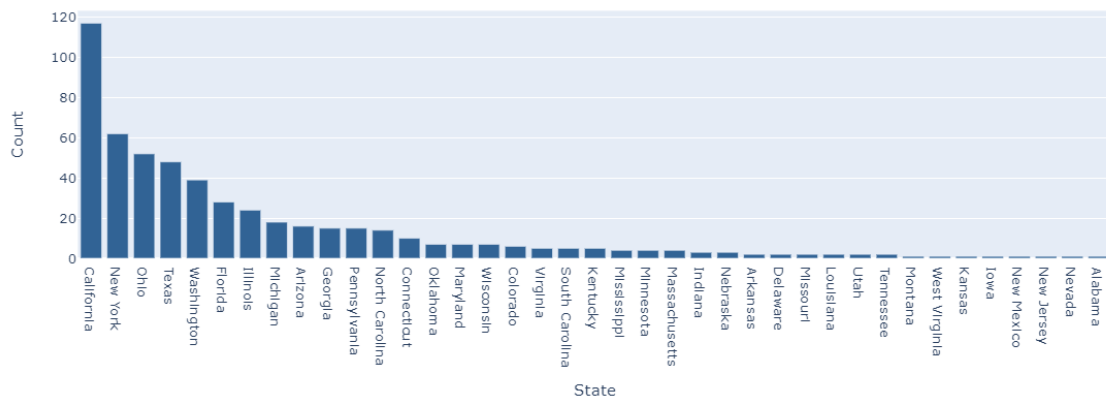
Average Shipping Duration by State



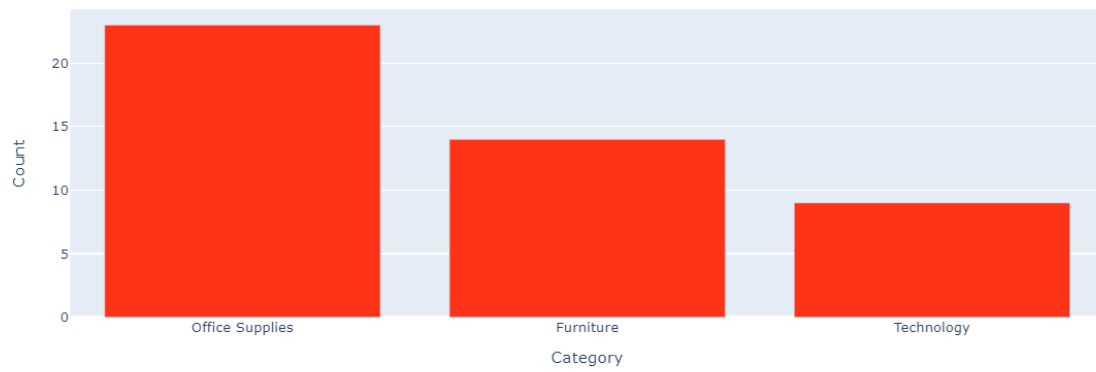
Count Of First Class Shipments by State



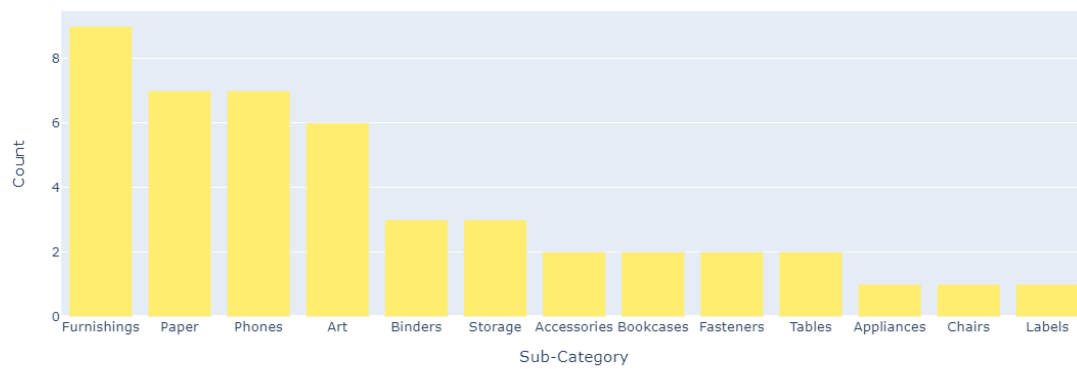
Count Of Same Day Shipments by State



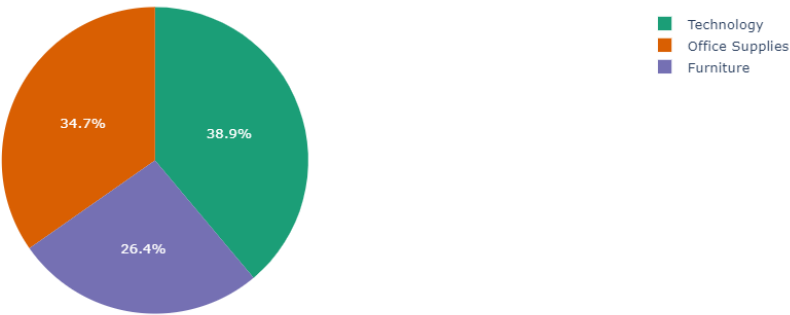
First Class Ship Mode by Category in February



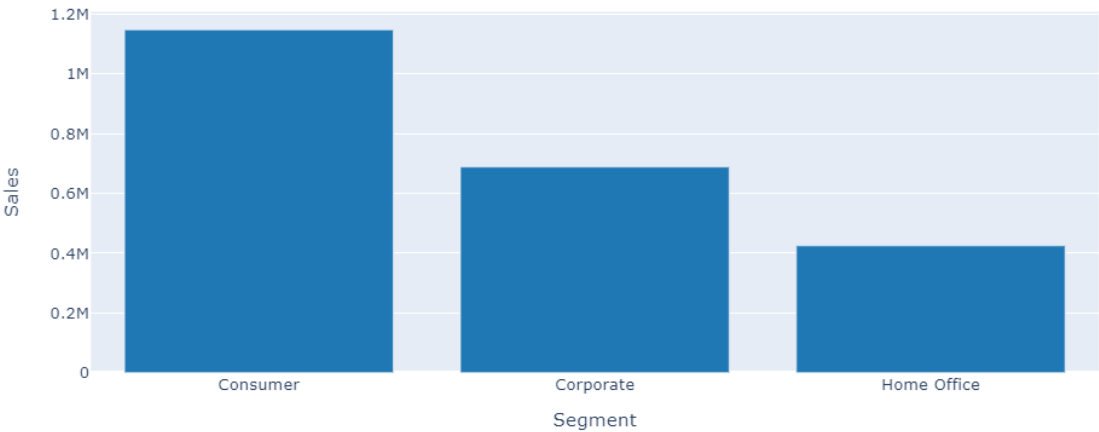
First Class Ship Mode by Sub-Category in February



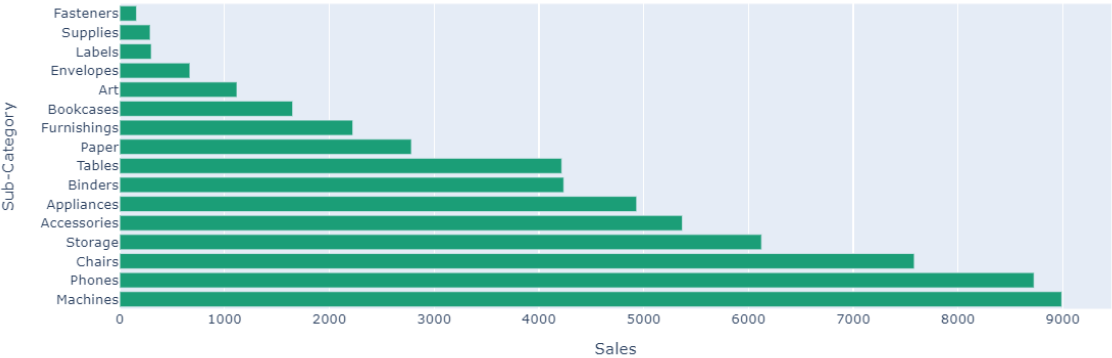
Sales by Category during February



Sales by Segment

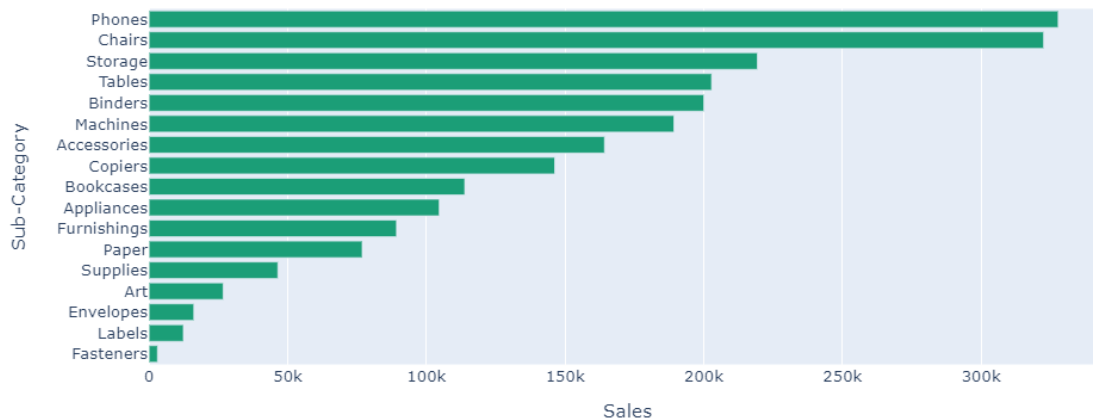


Sales by Sub-Category during February

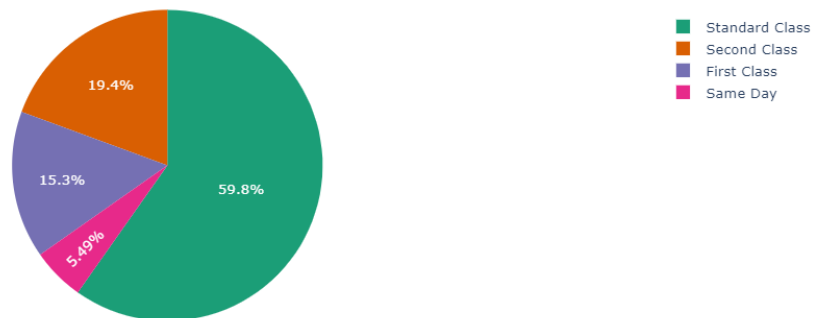




Sales by Sub-Category



Ship Mode Percentage



## • Results:

- Ship Mode of most of the Orders is Standard Class
- Most of the Orders are from Consumers
- Most of the Orders in Category are Office Supplies
- Most of the Orders in Sub-Category are Binders and Papers
- Most of the Orders are from California and New York States
- Most of the Sales are from California and New York States
- Most of the Sales are from New York City and Los Angeles

- Most of the Sales are from Technology Products
- Most of the Sales are from Consumers
- Most of the Sales are from West Region
- The Canon imageCLASS 2200 Advanced Copier Product achieved the most Sales

## • **Conclusions:**

***Which Country have the highest and lowest sales, and what factors could explain this ?***

- To determine which country has the highest Sales :
- California : Often leads in various markets due to a large population, high consumer spending power, and a strong economy.
- Factors Explaining These Trends:
- Economic Conditions: Wealthier countries tend to have higher disposable incomes, driving sales.
- Market Size: Larger populations increase potential customer bases.
- Consumer Behavior: Cultural factors and consumer preferences influence purchasing decisions.
- Infrastructure: Developed logistics and distribution networks facilitate higher sales in wealthier nations.
- Technological Access: Countries with better access to technology can drive e-commerce and sales.

***Points that need clarification or modification :***

Global Financial Crisis: The global financial crisis occurred mainly between 2007 and 2009, not in 2015. Its effects lasted for several years, but the US economy was already in recovery by 2015.

Unemployment: Although unemployment rose significantly during the crisis, it began to decline significantly after that, reaching historically low levels in recent years before the Corona pandemic.

***The US market has been in a deficit since 2015 for several reasons:***

- Economic slowdown: The economy was still recovering from the effects of the 2015 financial crisis, which affected consumer confidence.
- High interest rates: In some periods, interest rates increased, which reduced borrowing and spending.
- Trade tensions: Trade disputes with countries such as China led to uncertainty in the market, which affected investments and sales.
- From 2016 until now, sales have started to rise due to:
- Improved economy: Growth in jobs and increased wages increased consumer confidence.
- Declining unemployment rates: Job opportunities increased, which boosted purchasing power.
- Stimulus policies: Fiscal policies such as tax cuts and increased government spending were implemented to support growth.
- Shift in consumer patterns: Changes in purchasing habits, such as the shift towards e-commerce, also contributed to increased sales.
- Less tax payments on purchased sales, which led to increased sales
- These factors combined led to a recovery in the market and a significant increase in sales.