Retail Insights from Superstore Data

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  - Identify the segment with the highest profit and sales.
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PROBLEM STATEMENT

In today's tough business world, companies need useful insights to grow and make money. But without data analysis, making decisions can be hard. This project aims to look at sales and profit data to find trends and chances for improvement. Using these insights, businesses can improve strategies and lead the market.

Project Description

- Identify the region and city with the highest sales.
- Ship Mode's Impact on Profitability and Sales.
- Analyze the category and subcategory with the highest profit.
- Identify the segment with the highest profit and sales.

WHO ARE THE END USERS?

- Managers and Stack Holders
- Various Teams: Sales and Marketing, Supply chain team, etc.
- Impact:
  - Data-driven decisions help businesses grow, innovate, and stay competitive.
  - This also lead to higher customer satisfaction and long-term profits.

Technology Used

- Language
  - Python (v3.11.8)
- Libraries
  - Numpy - v1.23.5
  - Matplotlib - v1.5.3
  - Pandas - v0.12.2
  - Seaborn - v3.7.0
- Editor
  - Vs-code editor

RESULTS

Identify the region and city with the highest sales.

Insight

- Region East has the highest sales and Region South has the lowest sales.
- New York City and Los Angeles have the highest sales.

Actions

- Focuses on the East region to improve the Sales.
- Reason behind the low sales In the South and Central Region.

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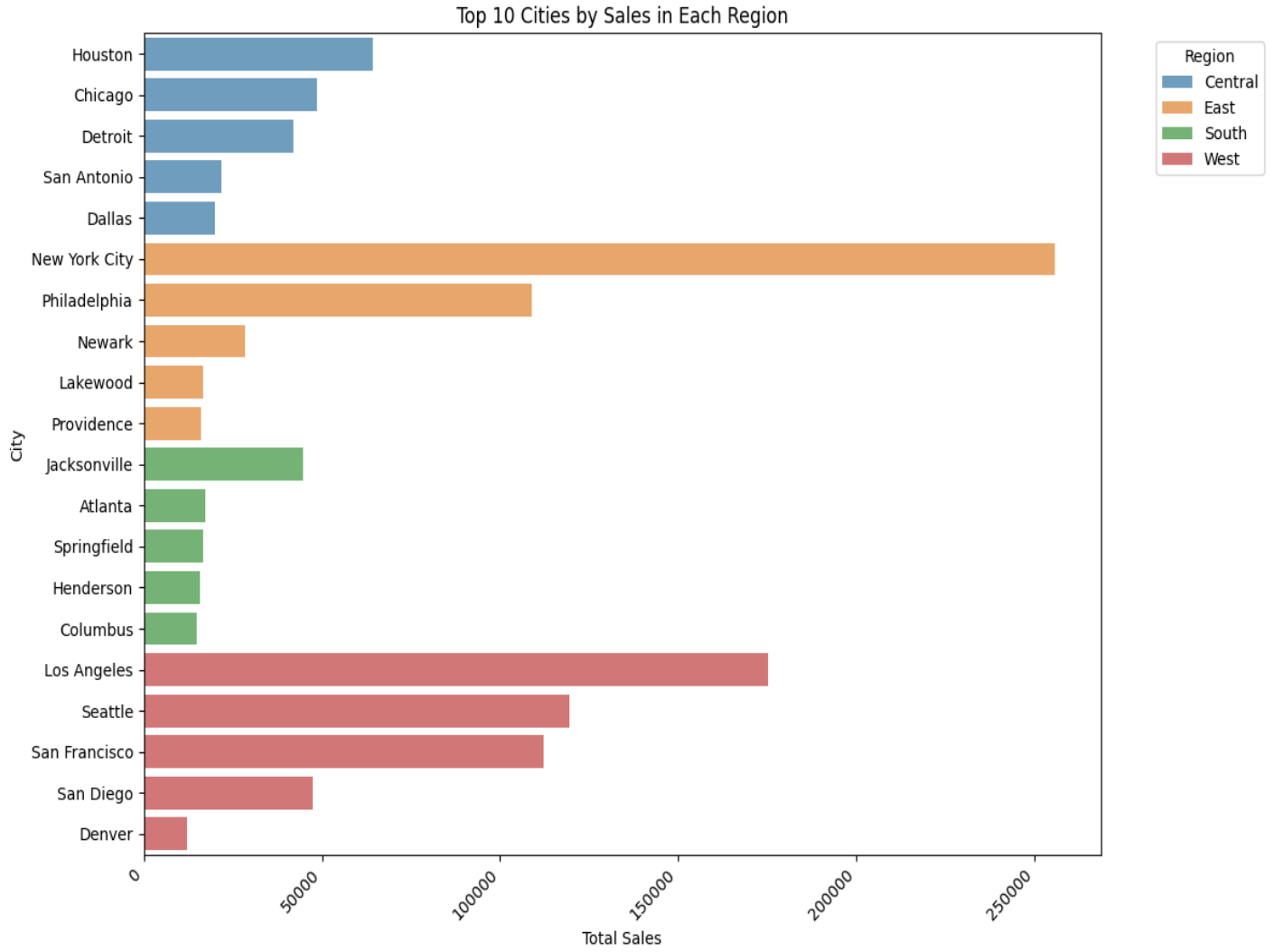

RESULTS

Ship Mode's Impact on Profitability and Sales.

Insight

- Standard class ship mode has high sales and profit.

Profit Margin with class

NOTE: Profit Margin is calculated with available data, other conditions and data is not taken in concentration due to unavailability.

Formula: Profit margin = $\frac{Total\ Profit}{Total\ Sales}$

Ship Mode	Profit Margin(%)
Standard Class	12.09
First Class	13.93
Second Class	12.50
Same Day	12.37

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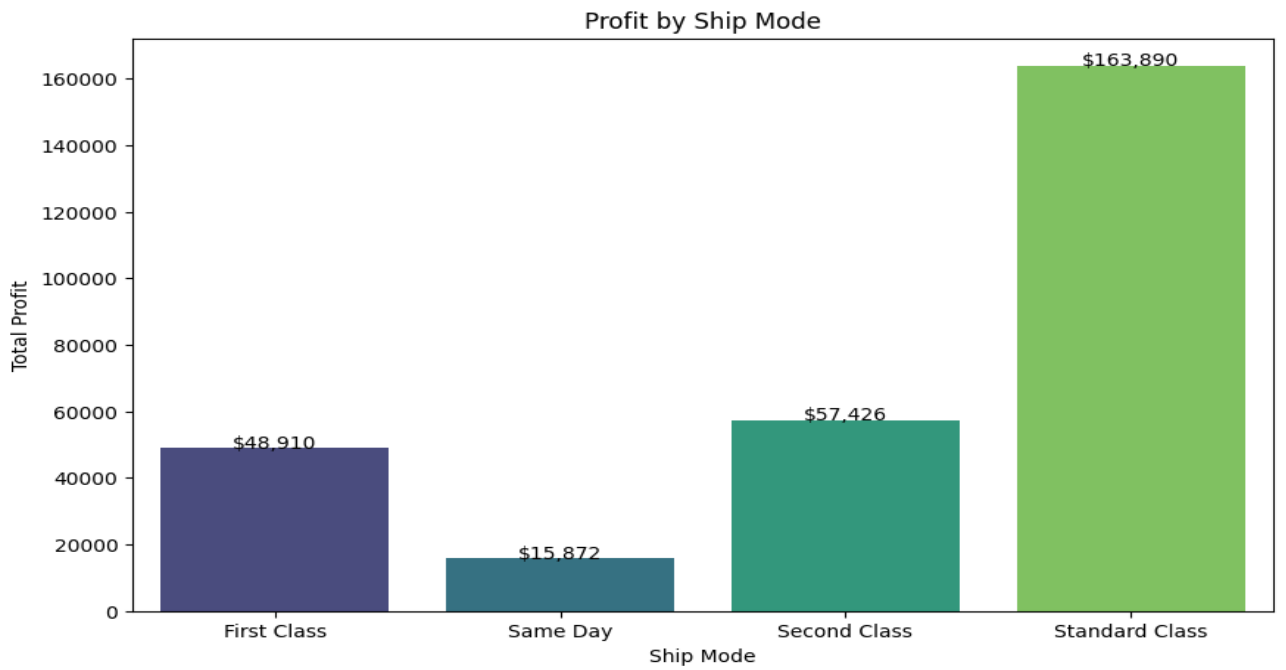
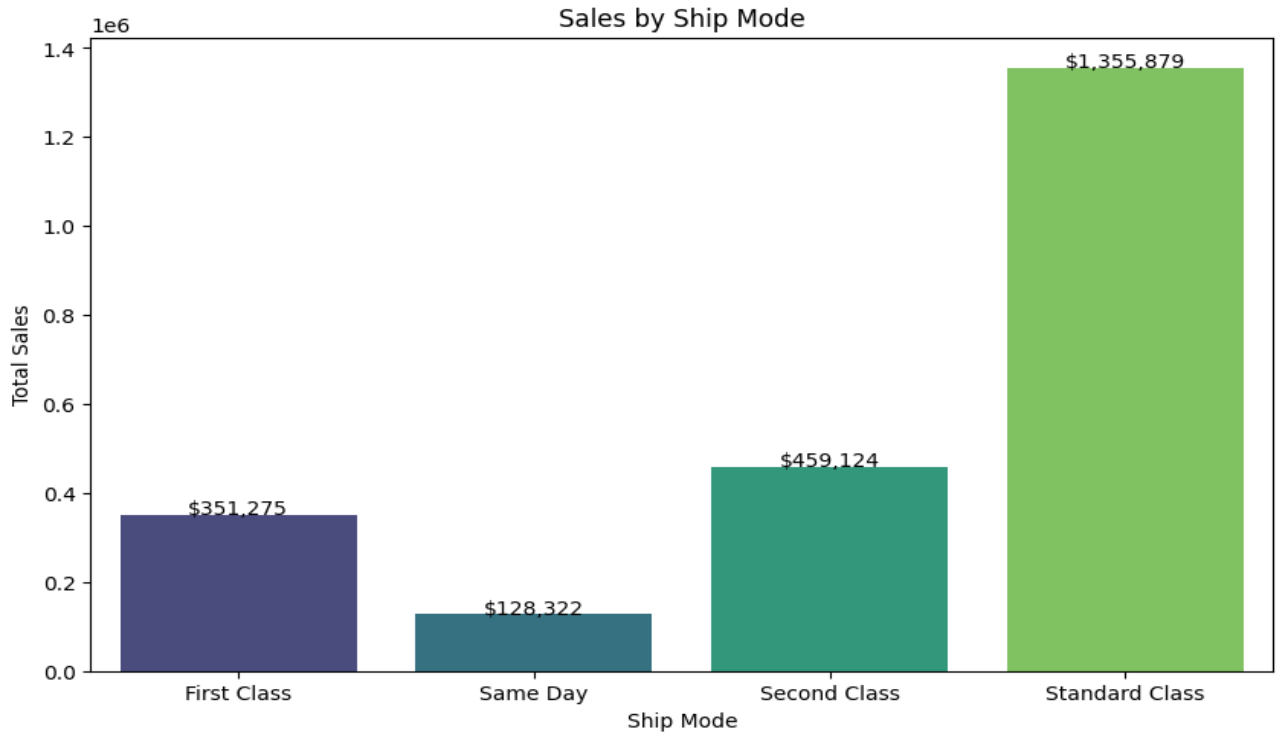


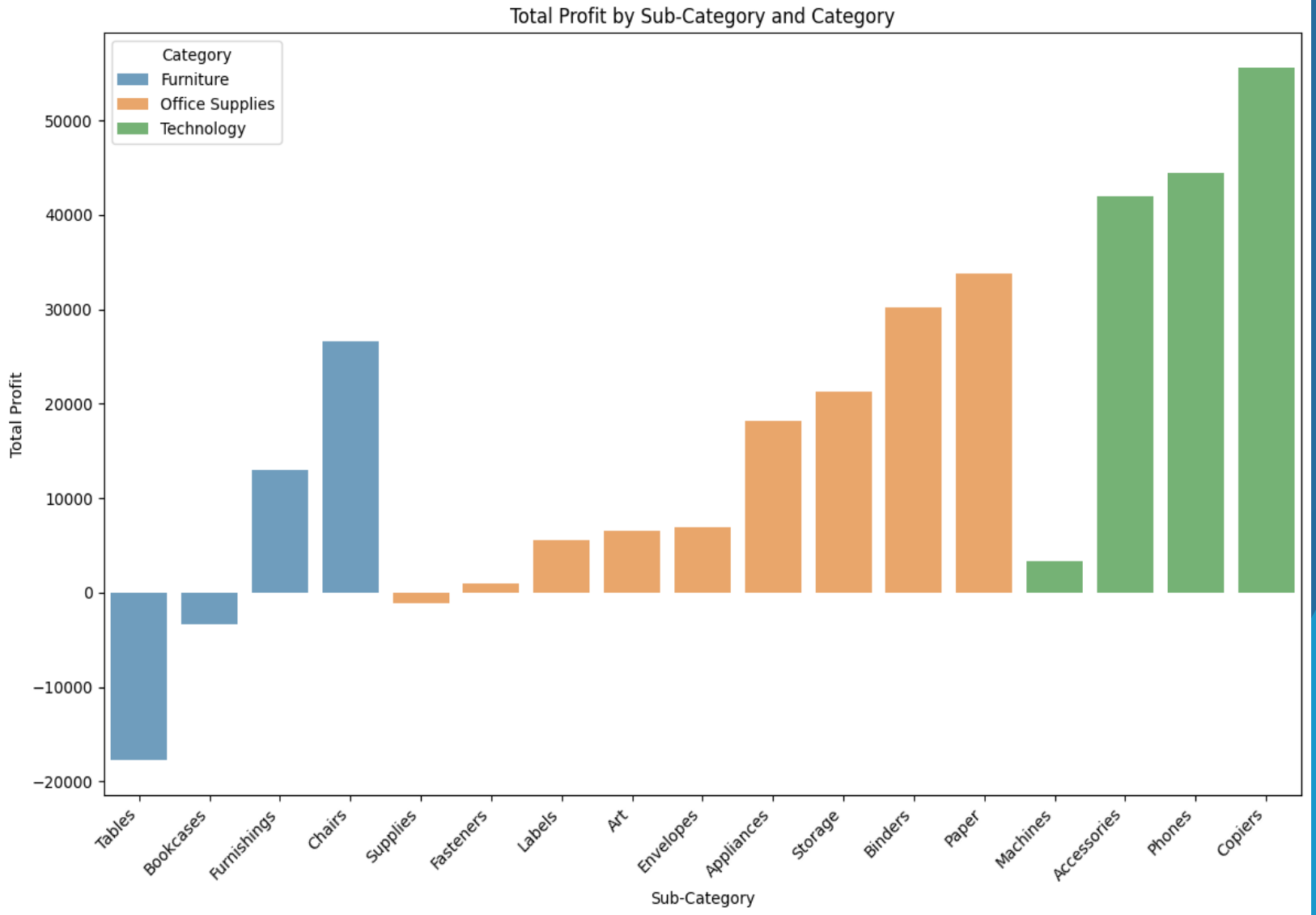


RESULTS

Analyze the category and subcategory with the highest profit and loss.

Insight

- Category Technology has the highest profit and without any loss whereas category Furniture has the lowest profit with loss.
- Sub-category copiers have the highest profit and tables have the lowest profit.



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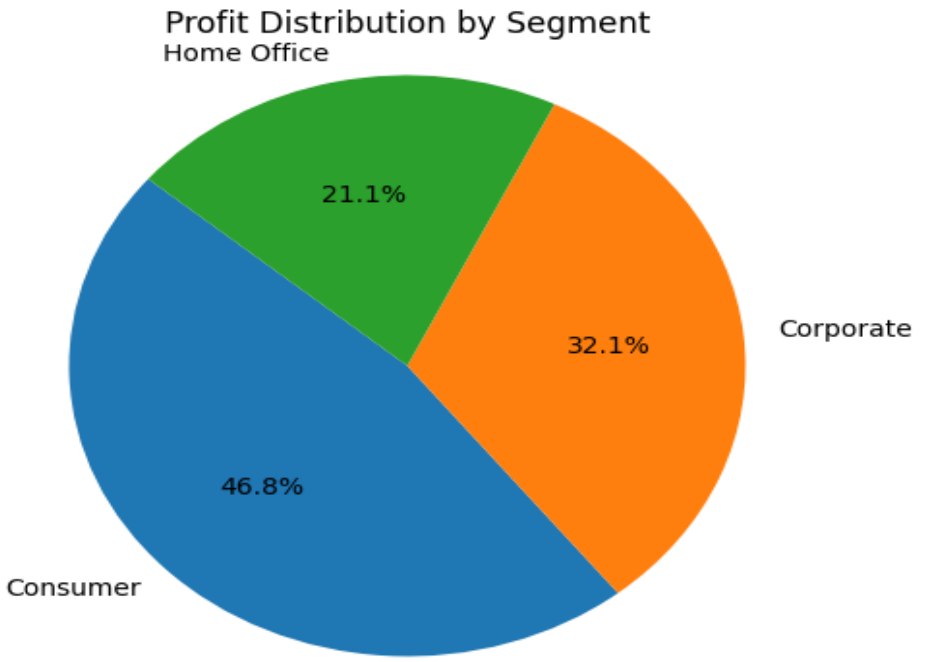
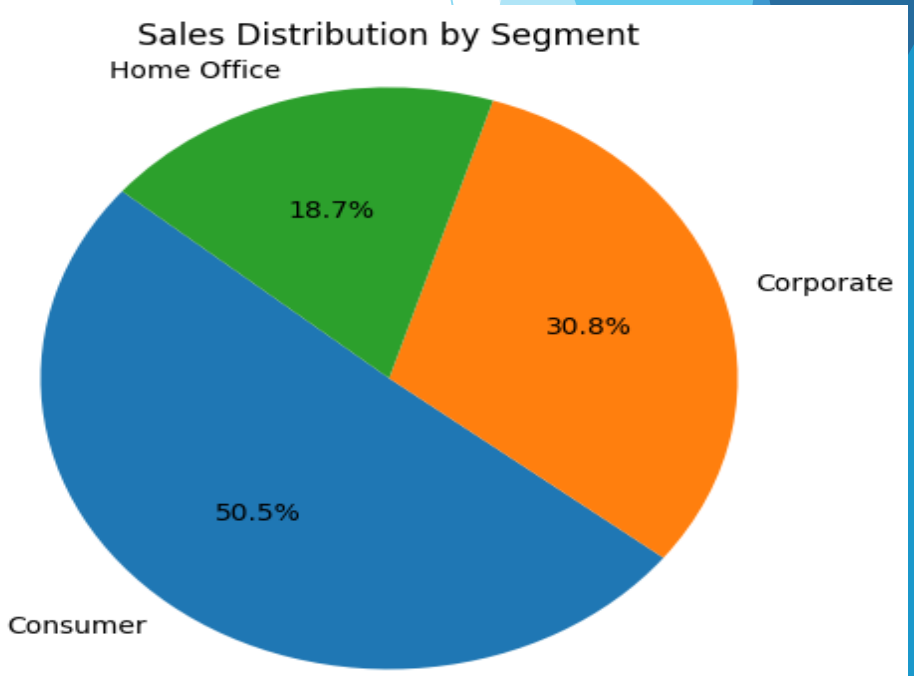
RESULTS

Identify the segment with the highest profit and sales.



Insight

- Consumer segment has the highest profit and sales.
- As the differences between the profit and sales segments are less, it shows a good healthy balance between profitability and sales performance.



Link

Thank you

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Code Notebook: GitHub