

# FINAL PROJECT REPORT

# AGENDA

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# INTRODUCTION

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Objective: The project aims to analyze sales data to gain insights into sales performance across different categories, sub-categories, and shipping modes over the years.

## KEY METRICS

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This project analyzed key metrics from sales data:

### 1. Sales:

- Focused on total sales across years, highlighting top-performing products and business growth trends.

### 2. Product Categories:

- Key categories include Furniture, Office Supplies, and Technology.
- Top sub-categories were Chairs (Furniture) and Phones (Technology).

### 3. Shipping Modes:

- Orders were shipped using First Class, Same Day, Second Class, and Standard Class.
- Standard Class had the highest usage, though Same Day shipments saw growth over time.

# DATA OVERVIEW



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## DATASET OVERVIEW

The data includes sales information categorized by product types (e.g., furniture, technology, office supplies) and shipment modes over several years.

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## KEY VARIABLES

- Sales: Sales amounts by product sub-category.
- Order Year: Years in which the orders were made.
- Ship Mode: The mode of shipping used for the orders (First Class, Same Day, Second Class, Standard Class).

## SALES BY PRODUCT SUB-CATEGORY

- Highest sales were in the "Chairs" category, followed by "Phones" and "Tables".
- Office supplies and technology categories show significant variation in sales, indicating the need to focus on high-performance products.

## SALES BY YEAR

- Sales across all shipping modes have grown over time, with the highest number of orders seen in 2018.
- Standard Class is the most common shipping mode, while Same Day shipping has the lowest usage, indicating customer preferences for lower-cost options.

## SALES TRENDS AND INSIGHTS:

### Yearly Sales Growth:

- Sales showed a steady upward trend, with the highest revenue recorded in 2018. The consistent increase in sales indicates strong market demand and effective product offerings over time.
- The analysis suggests the company's growth has been consistent year-over-year, demonstrating resilience and potential for further expansion.

### Top Categories:

- Chairs and Phones emerged as the best-selling products, leading the Furniture and Technology categories, respectively.
- These top categories should be the focus of future promotions and inventory management, as they contribute significantly to total sales.

### Shipping Mode Insights:

- Standard Class accounted for the majority of shipments, reflecting customer preference for cost-effective shipping options. This mode should remain the backbone of logistics planning.
- However, Same Day shipping grew in popularity from 2016 to 2018, signaling an opportunity to invest in faster delivery options to cater to an emerging market segment willing to pay for speed.

# MODEL DEVELOPMENT



## MODEL SELECTION:

- Model Selection: Not specified in detail, but presumably, the goal was to analyze patterns that could be useful for forecasting future sales or optimizing shipping strategies based on historical data.

## MODEL OUTPUT:

- A pivot table showing the number of sales for each shipping mode across the years was generated, suggesting which shipping options are most popular and how the company can optimize its logistics.

# CONCLUSION

## KEY FINDINGS

- Chairs and Phones are the top-performing categories in terms of sales.
- 2018 was the best year in terms of the total number of sales, with growth across all categories.
- Standard Class shipping dominates, though premium options like Same Day have gained traction over time.

## RECOMMENDATIONS:

- Focus marketing efforts on top-performing categories to sustain growth.
- Explore expanding faster shipping options like Same Day, as this shows potential for future growth.
- Develop forecasting models to predict which categories will perform best in upcoming years based on historical trends.

# TEAM MEMBERS

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**THANK  
YOU**

