

Presented by KAUSHAL RAJ (2280027)

# Data Science and business Analytics

Graduate Rotational Internship program (GRIP)



Sparks Foundation

# Data Analysis

Data Analysis is a process of inspecting, cleansing, transforming and modeling data with the goal of discovering useful information, informing conclusion and supporting decision making.

## Steps of Data Analysis-



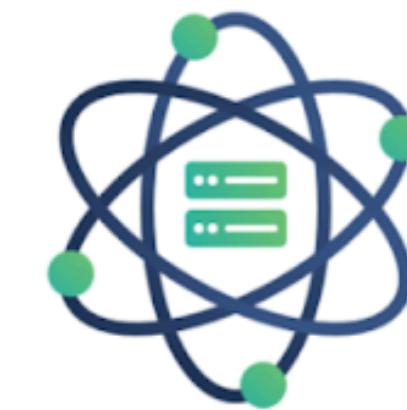
Ask  
Questions



Data  
Preprocessing



EDA



Drawing  
conclusions

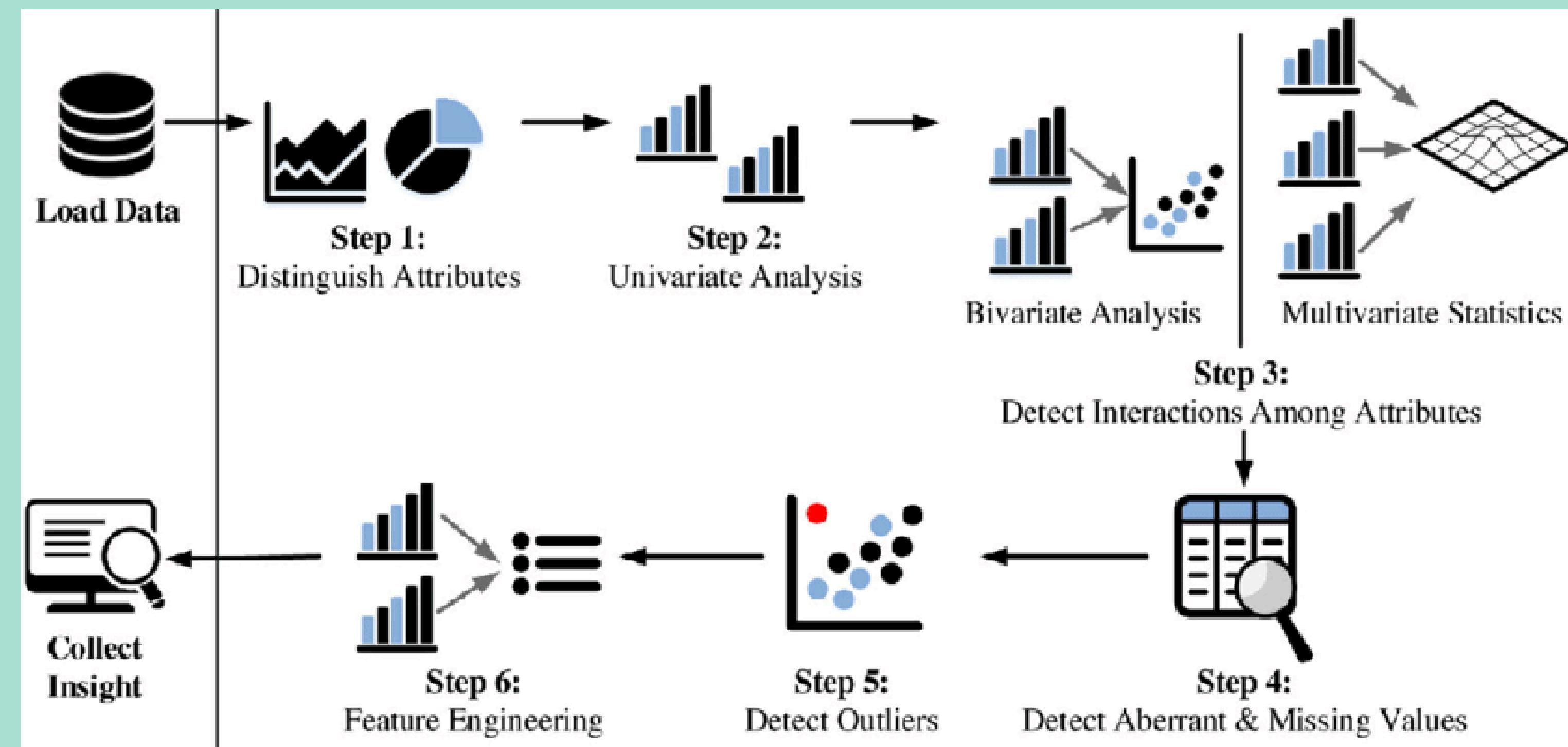


communication  
Result

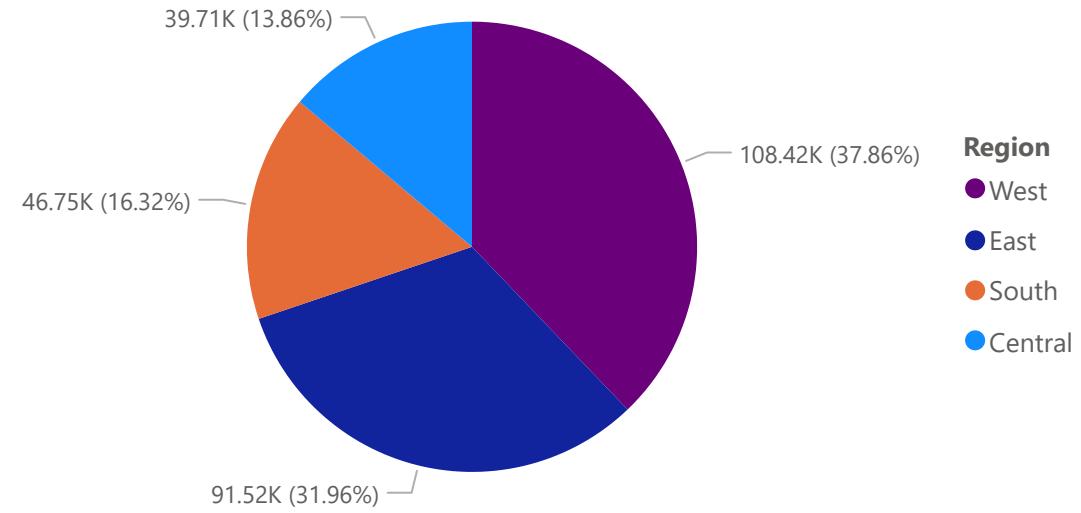
# Exploratory Data Analysis

Exploratory Data Analysis (EDA) is a critical step in the data analysis process that involves investigating datasets to summarize their main characteristics, often using visual methods. The primary goal of EDA is to understand the structure, patterns, and relationships within the data before making assumptions or applying models.

## Key Steps in EDA:



### Sum of Profit by Region



### Sum of Sales by Region and Category

Category ● Furniture ● Office Supplies ● Technology

0.8M

0.6M

0.4M

0.2M

0.0M

Sum of Sales



### Sum of Sales by Region and Segment

Segment ● Consumer ● Corporate ● Home Office

0.8M

0.6M

0.4M

0.2M

0.0M

Sum of Sales

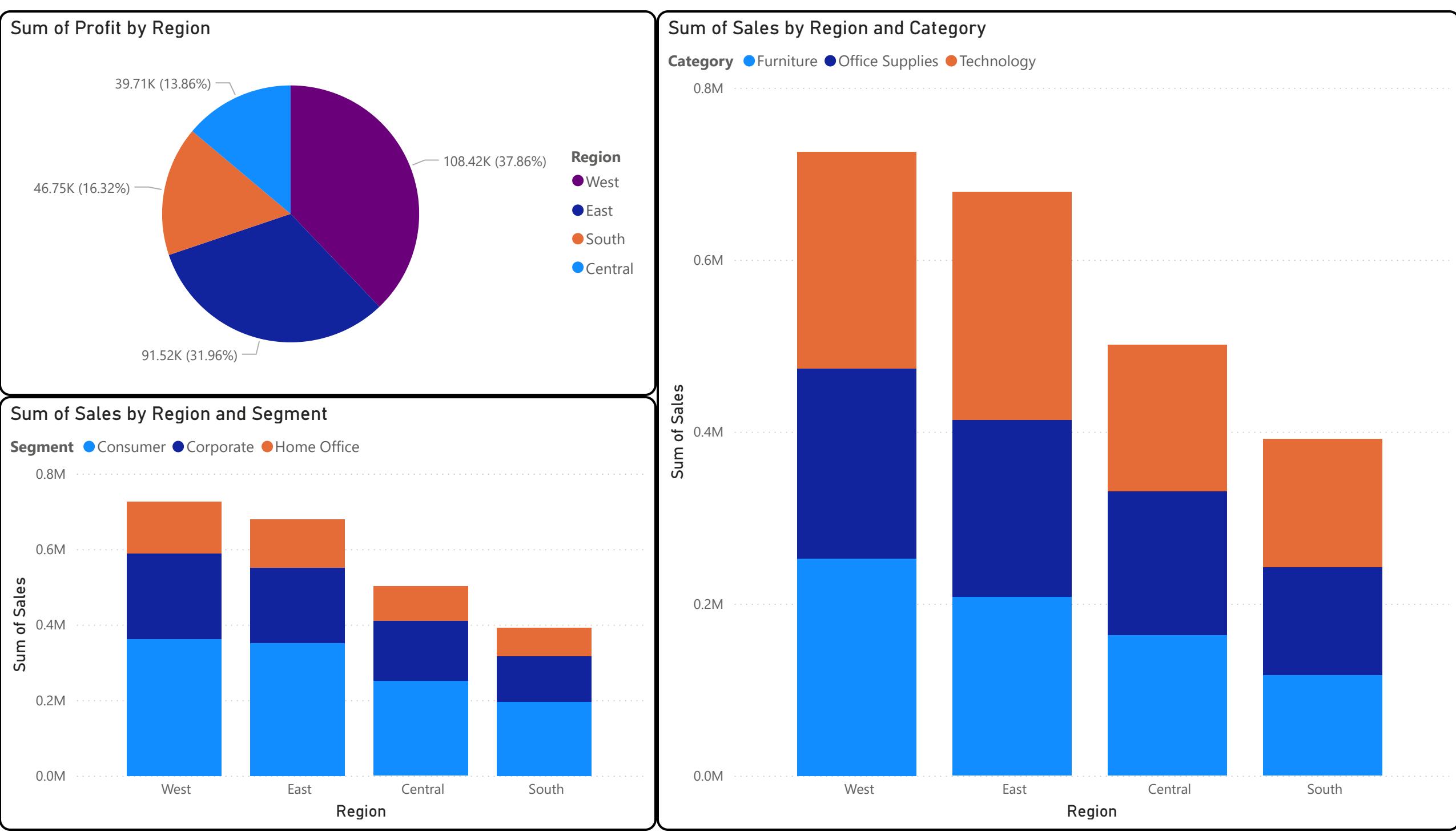
West

East

Central

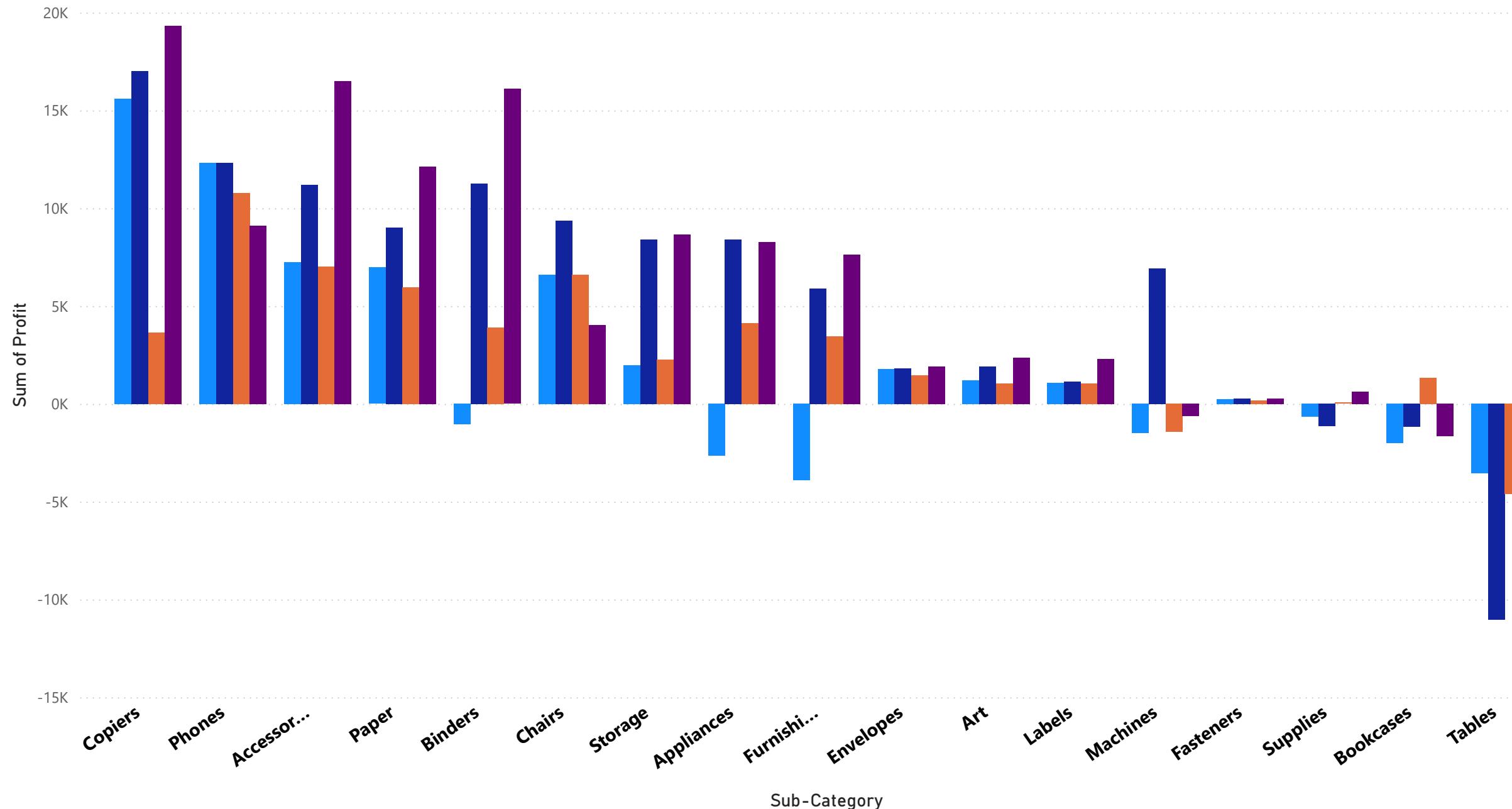
South

Region



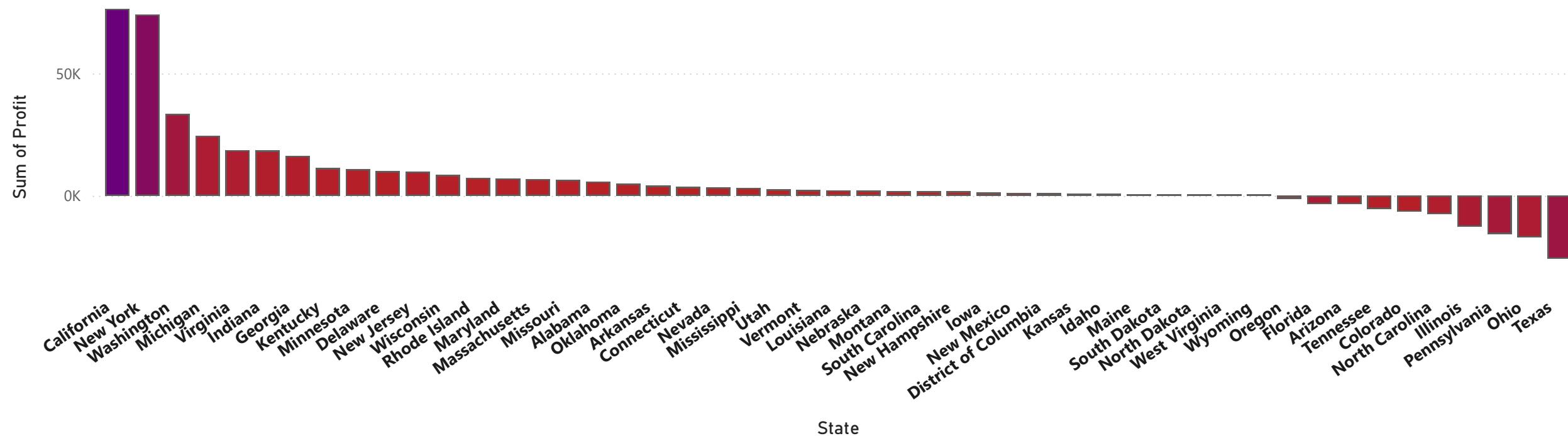
## Sum of Profit by Sub-Category and Region

Region ● Central ● East ● South ● West

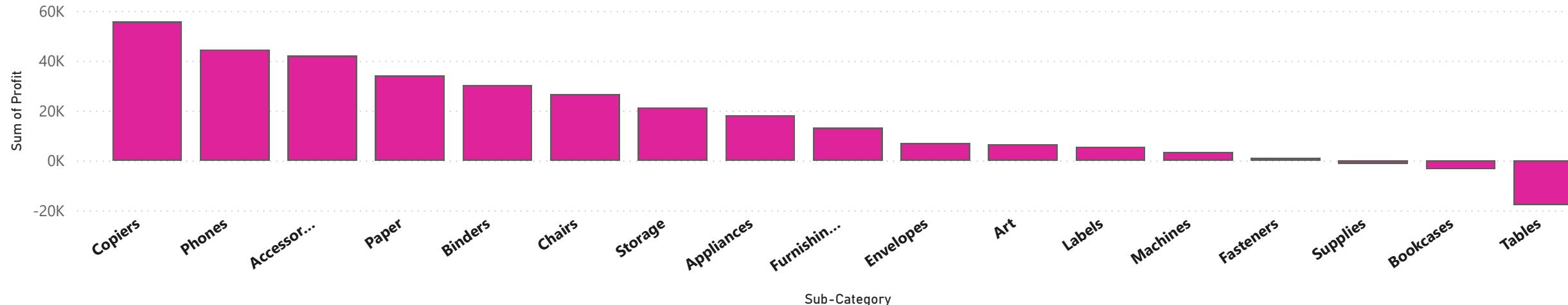


## Sum of Profit by State

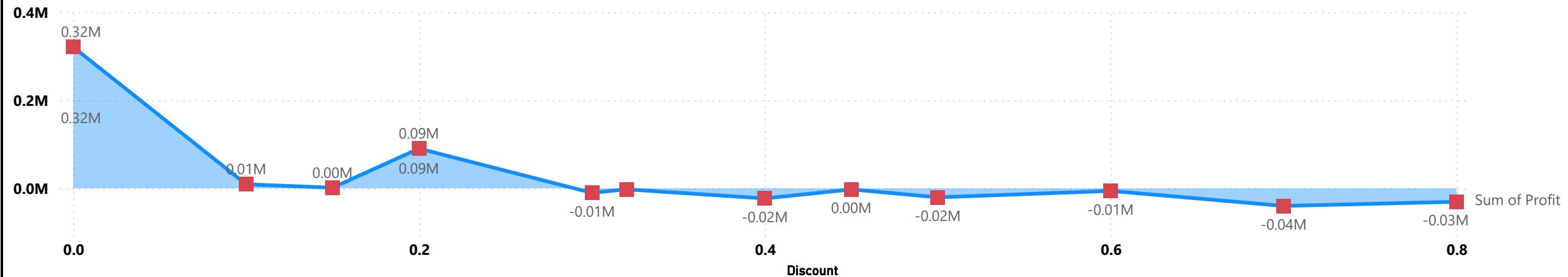
Sum of Sales 0.00M 0.46M



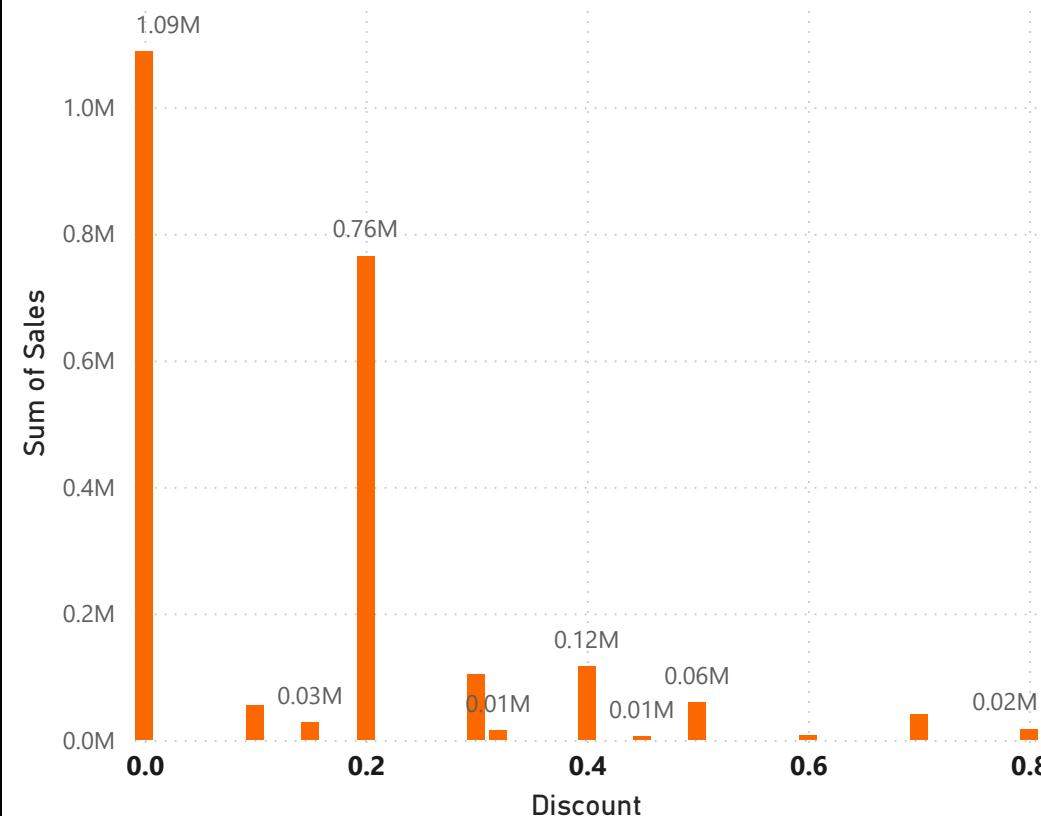
## Sum of Profit by Sub-Category



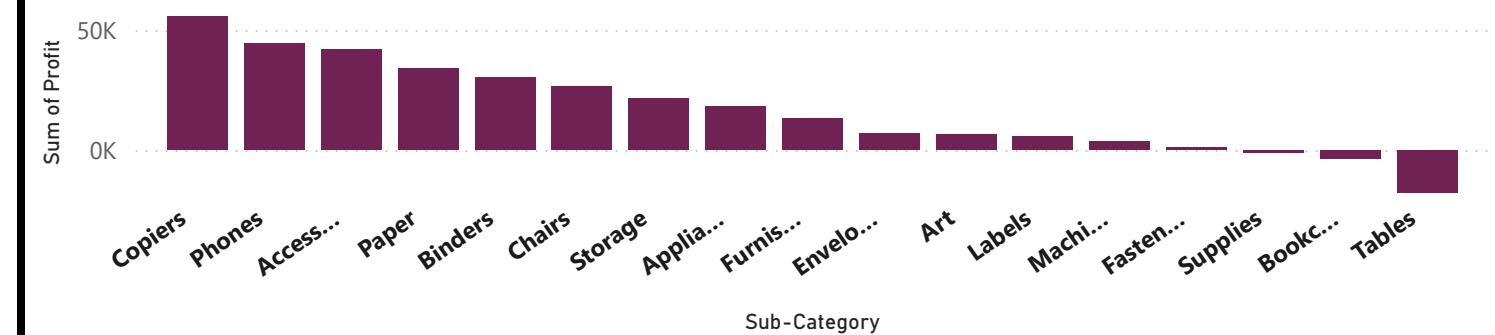
### Sum of Profit by Discount



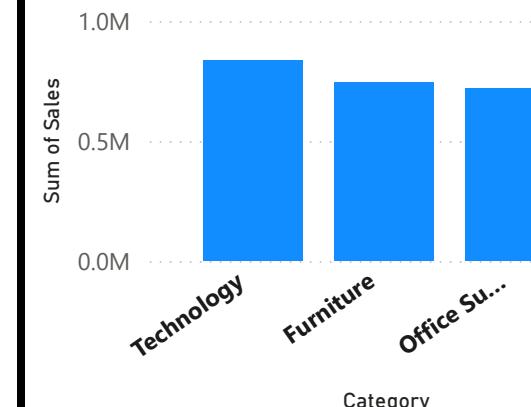
### Sum of Sales by Discount



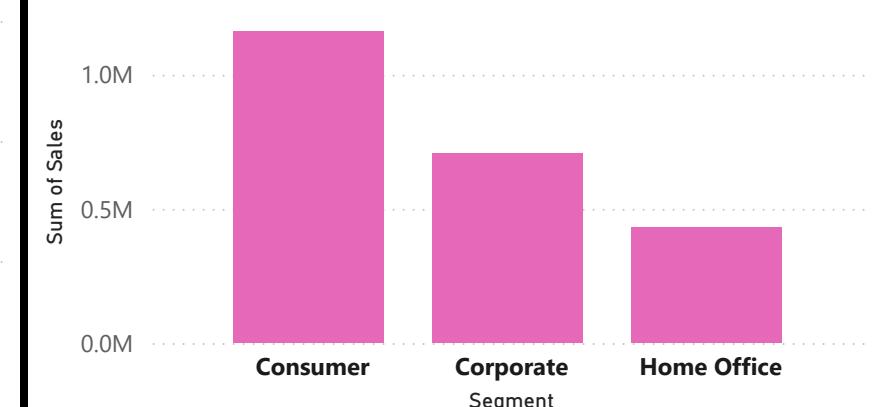
### Sum of Profit by Sub-Category



### Sum of Sales by Category

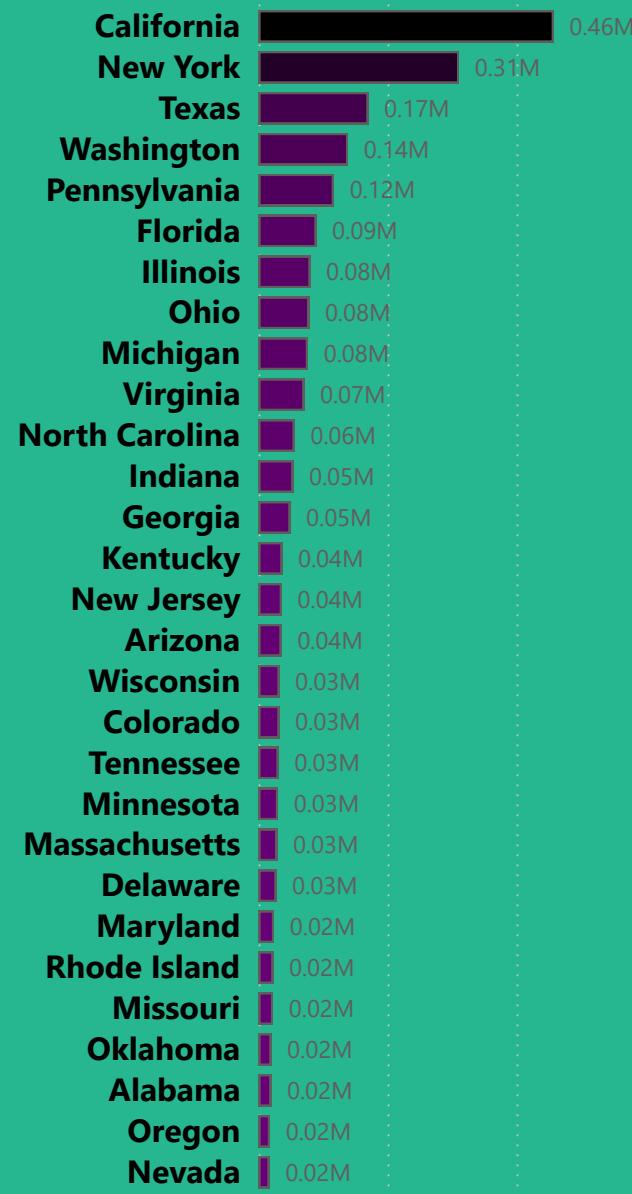


### Sum of Sales by Segment



## Sum of Sales by State

Sum of Sales 0.00M 0.46M



0.0M 0.2M 0.4M  
Sum of Sales

286.4...

Sum of Profit

2.30M

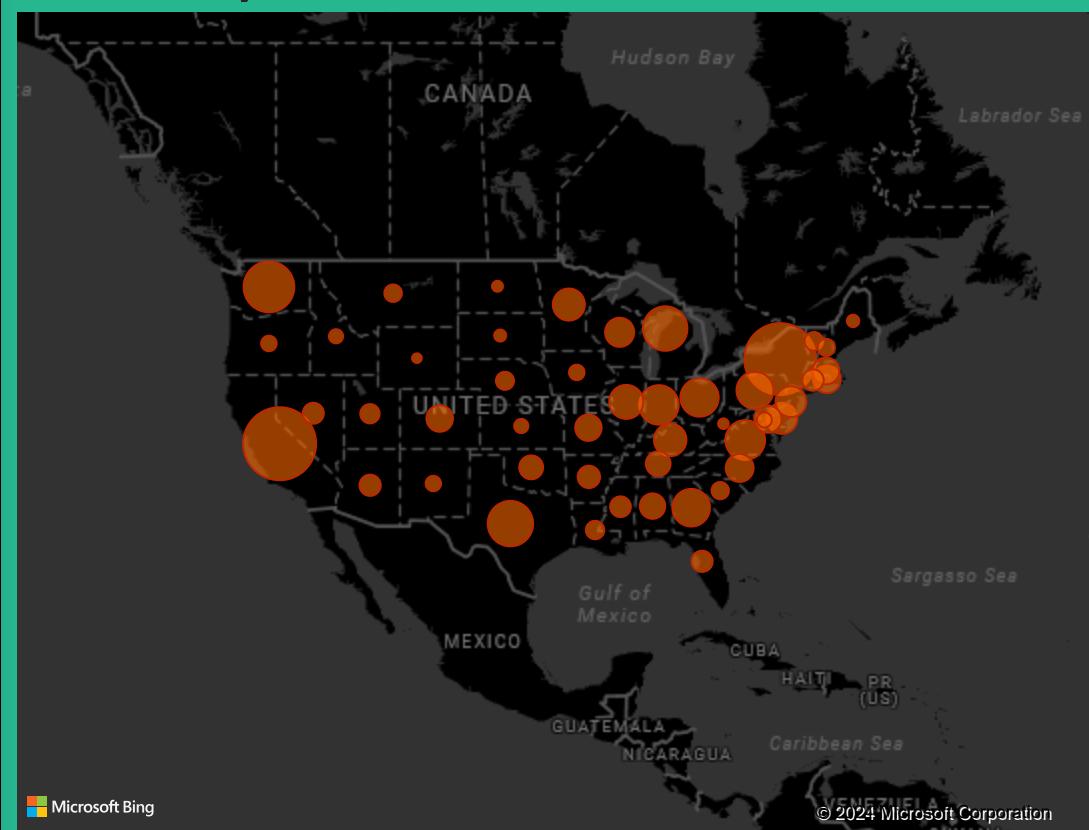
Sum of Sales

38K

Sum of Quantity

Alabama

## Sum of Profit by State



Copiers

First Sub-Category

Lafayette

First City

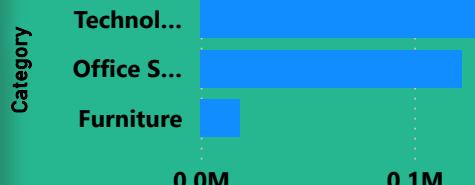
Machines

First Sub-Category

Lancaster

First City

## Sum of Profit by Category



0.0M 0.1M

## Sum of Profit by Segment



## Sum of Profit by Ship Mode



100%

9.7%

# My Internship Experience

During my Data Science and Business Analytics internship at The Sparks Foundation, I had the opportunity to enhance my skills in Python, Power BI, SQL, and Pandas. I worked on an insightful project, conducting Exploratory Data Analysis on the Superstore dataset to uncover meaningful trends and patterns. This hands-on experience allowed me to develop a deeper understanding of data analysis techniques and tools, preparing me to apply these skills in real-world scenarios.



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# Thank you very much!

