CASE STUDY PROJECT - OFFICE SUPPLIES

Last Updated: November 2022

BUSINESS GOALS

/01 Are there products that do not sell as well in some locations?

/02 Are there any other patterns over time in each region that you can find in the data?

DATA ANALYSIS WORKFLOW

/01

Data preparation

- Exploratory data analysis
- Checking data quality
- Cleaning data

/02

Data Analysis

- Transformation
- Modelling
- Visualization

/03

Conclusions

- Key findings
- Answer the customer questions
- Recommendations

DATA OVERVIEW

- The data collected from 2014 to 2017.
- Each row of the dataset contains information about one order.
- The dataset has the following columns: Order ID, Order Date,
  Region, Product ID, Category, Sales, Quantity etc.
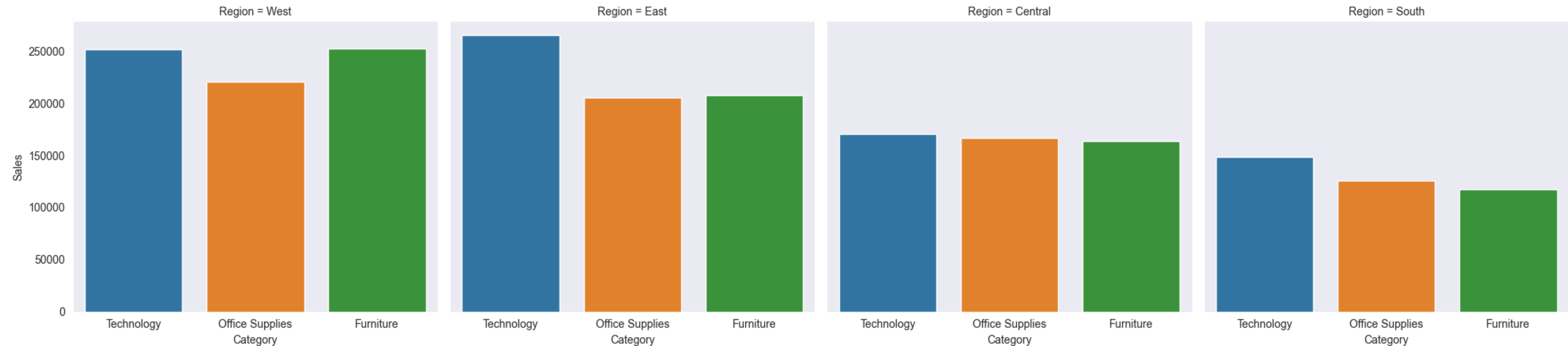- Warehouses in four regions: East, West, South, and Central
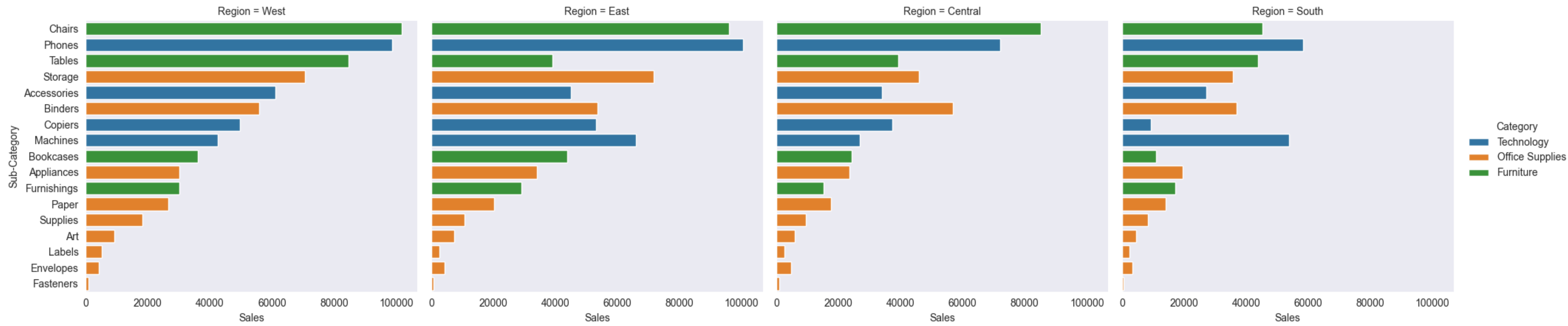

The counts of orders in each regions
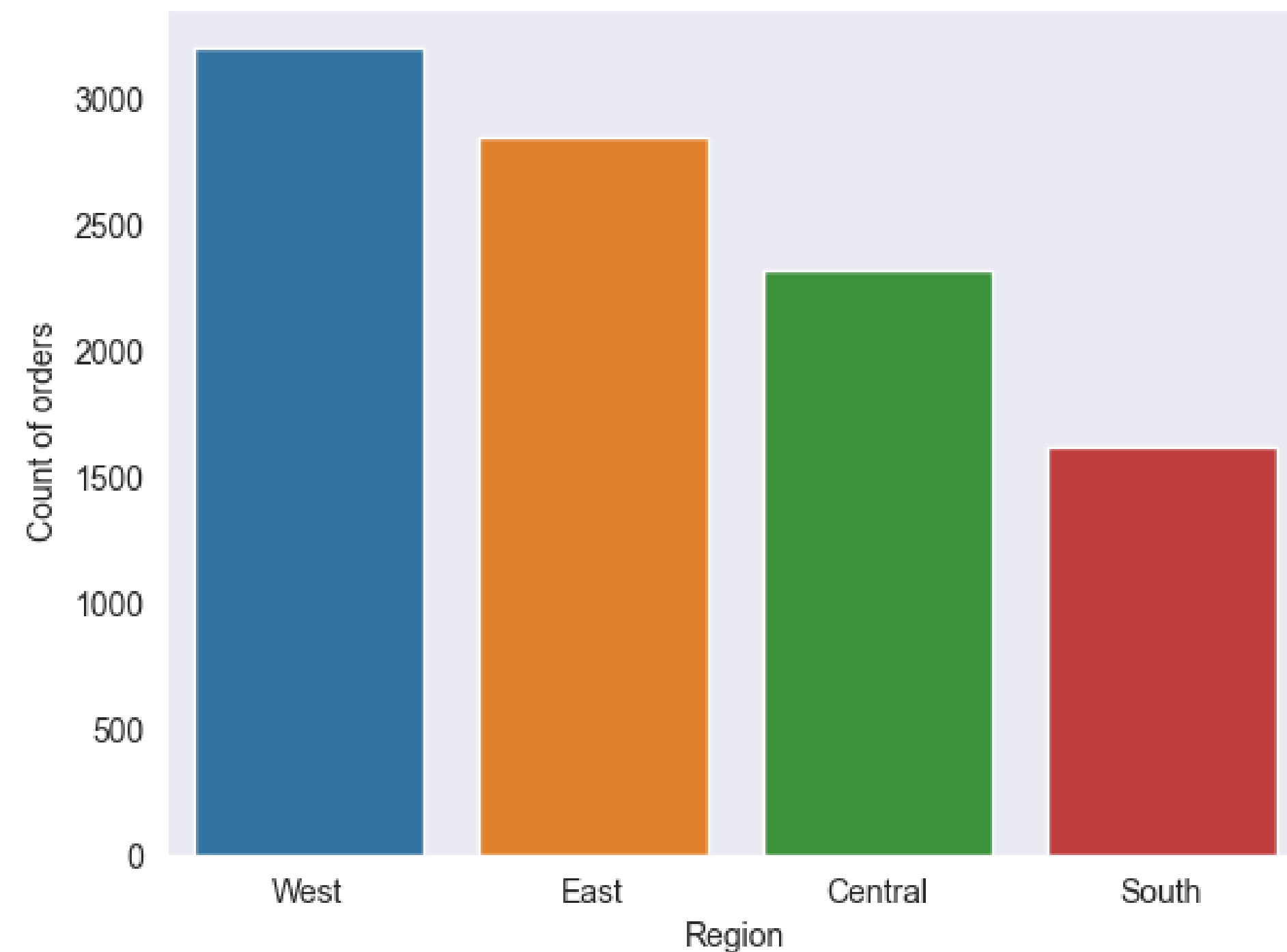
Total sum of sales in each region
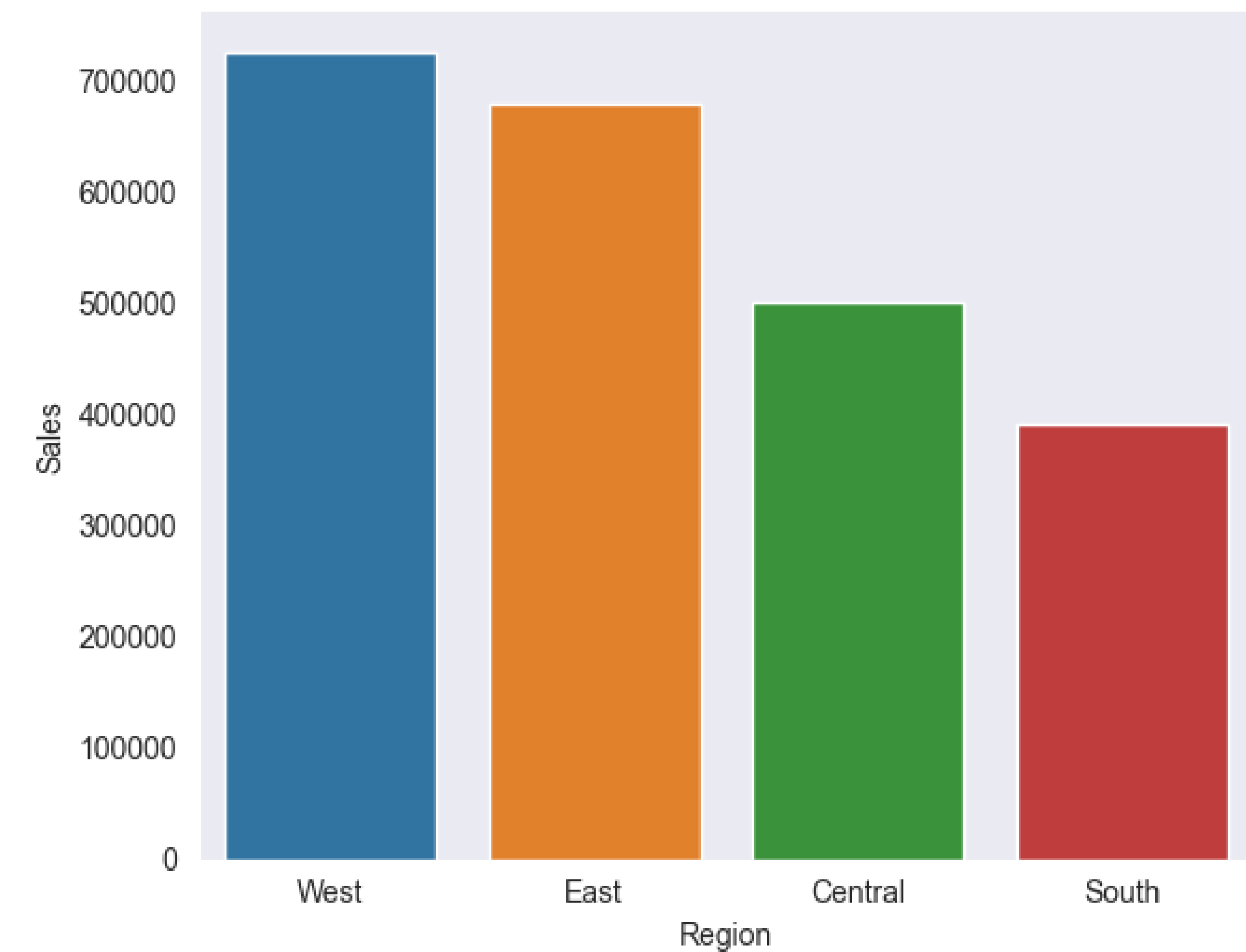
Total sum of sales in each region depending on category
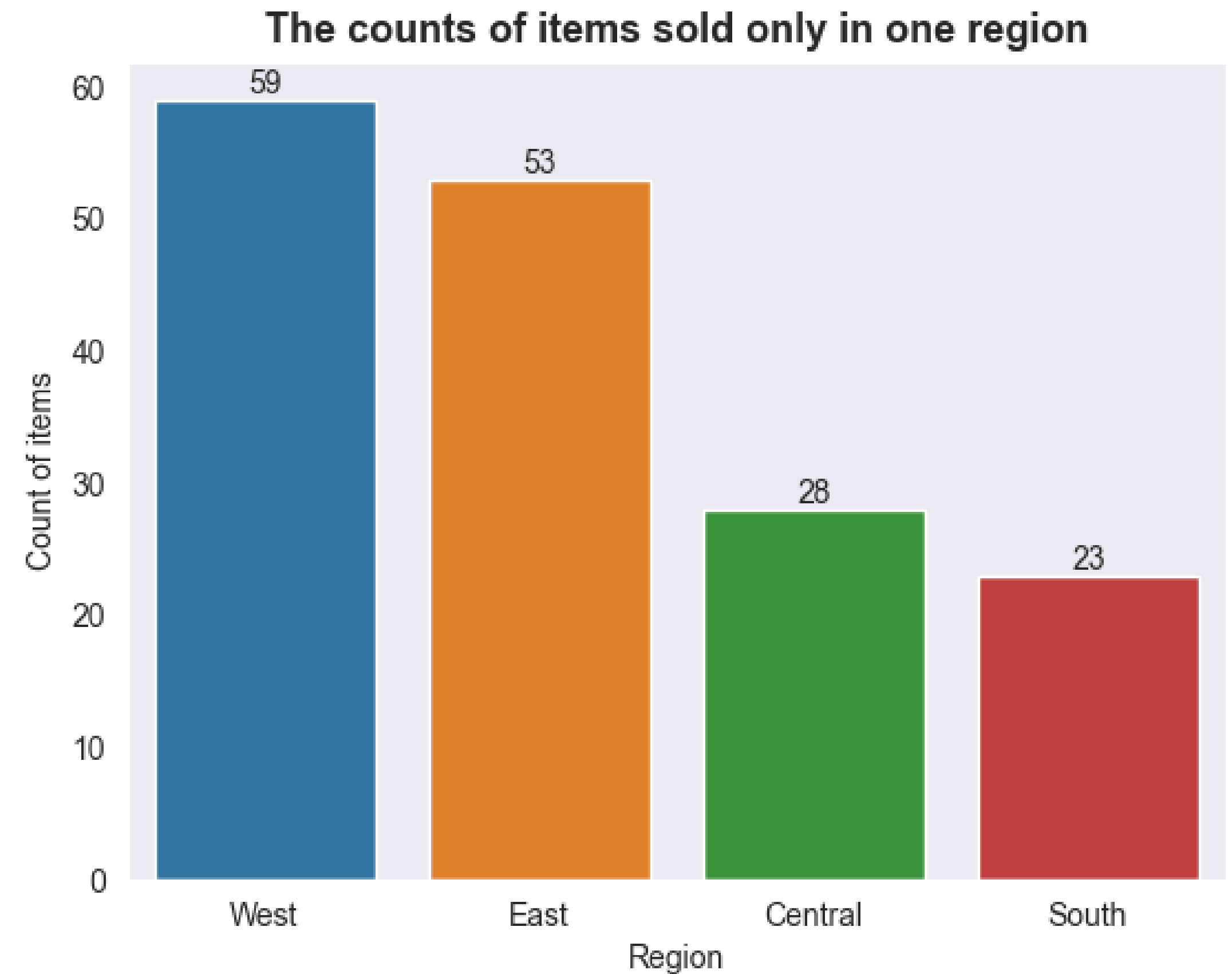
**Total sum of sales in each region depending on sub-category**

KEY TAKEAWAYS

📌 In the southern region, in the subcategory Chairs, the sales volume was much lower compared to other regions

📌 163 (8.7%) items were sold in only one of the four regions

📌 Five items of products were sold only in a single copy

The counts of items sold only in one region

KEY TAKEAWAYS

📌 Seasonal general trend in the number of orders

📌 Decrease in the number of orders in February

📌 Increase in the number of orders in September and November
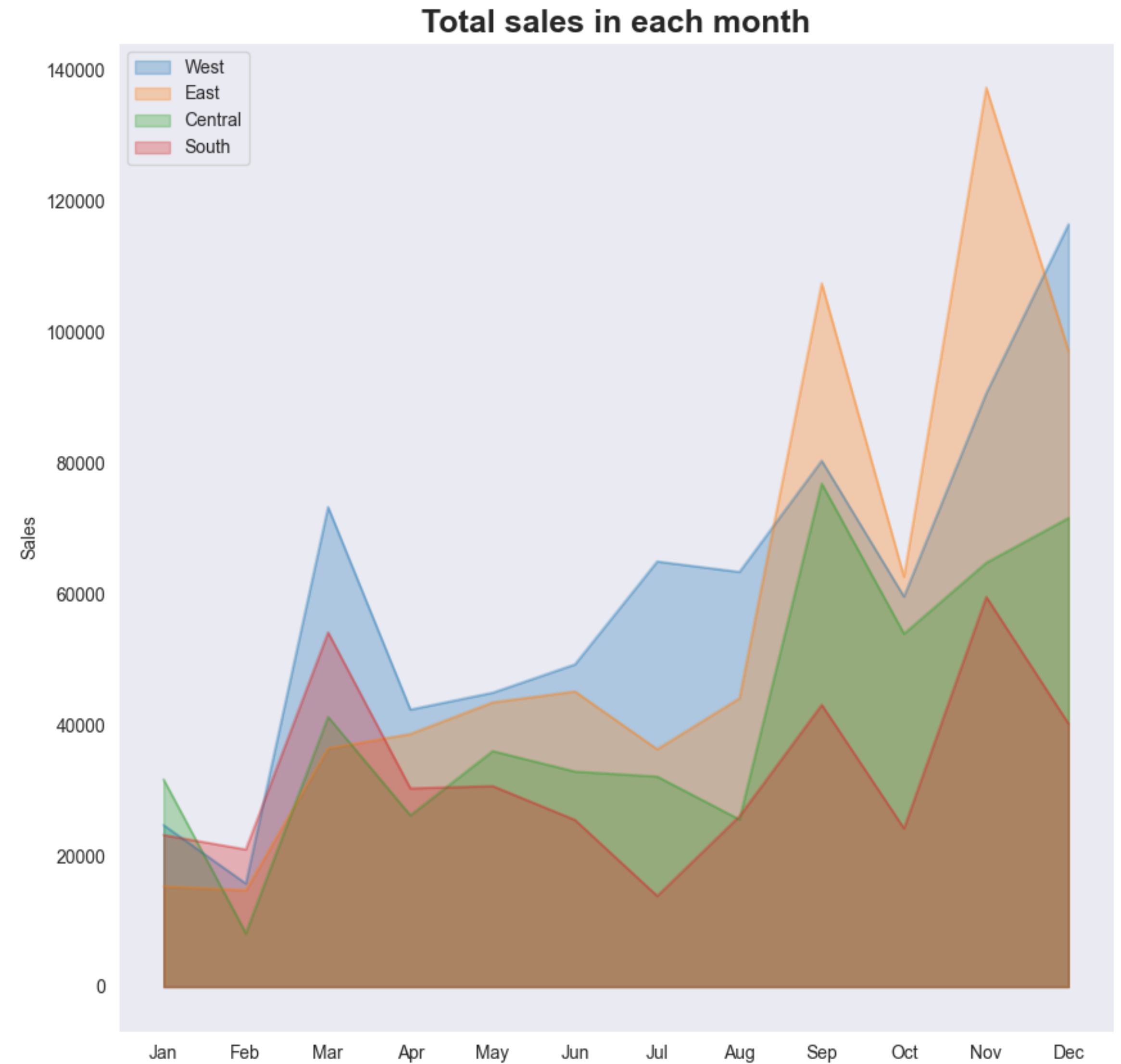
The counts for the number of orders
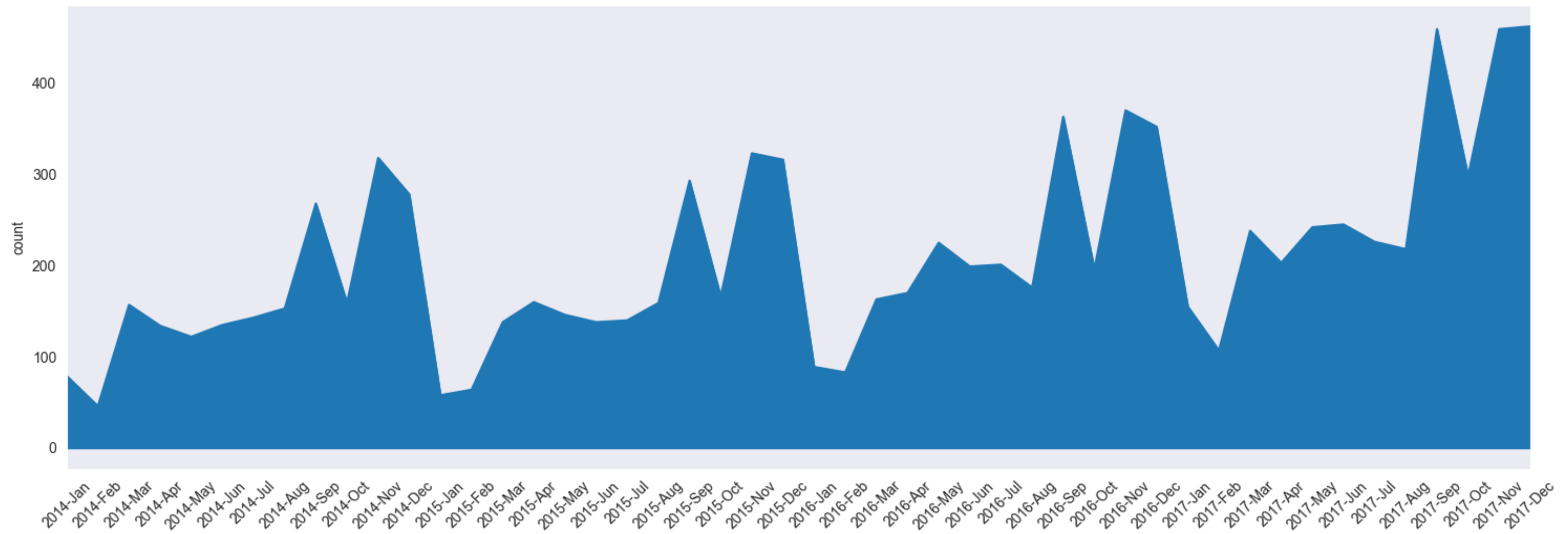
KEY TAKEAWAYS

📌 Seasonal general trend of total sales for all regions

📌 Decrease in sales in February

📌 Increase sales in September, November and March

Total sales in each month

RECOMMENDATIONS TO THE BUSINESS FOR FUTURE WORK

- There is potential for sales in the subcategory Chairs in the South region

- Reduce the stock of items that are not sold in some regions

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- Sales strategies and storage volumes may be adjusted to seasonal demand