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Supermarket Sales Analysis Project

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Introduction

In today’s competitive retail market, understanding customer behavior and sales performance is essential. This project analyzes supermarket sales data to uncover insights that help improve decision-making and boost profitability.

Project Objectives

- To analyze and visualize supermarket sales performance.
- To identify key trends by gender, city, and product lines.
- To evaluate payment methods and customer preferences.
- To calculate total profit and tax by branch and category.

Tools Used

- **Power BI:** For creating interactive dashboards and visualizations.

- **Python (Pandas, Matplotlib, Seaborn):** For data cleaning, exploration, and preprocessing.

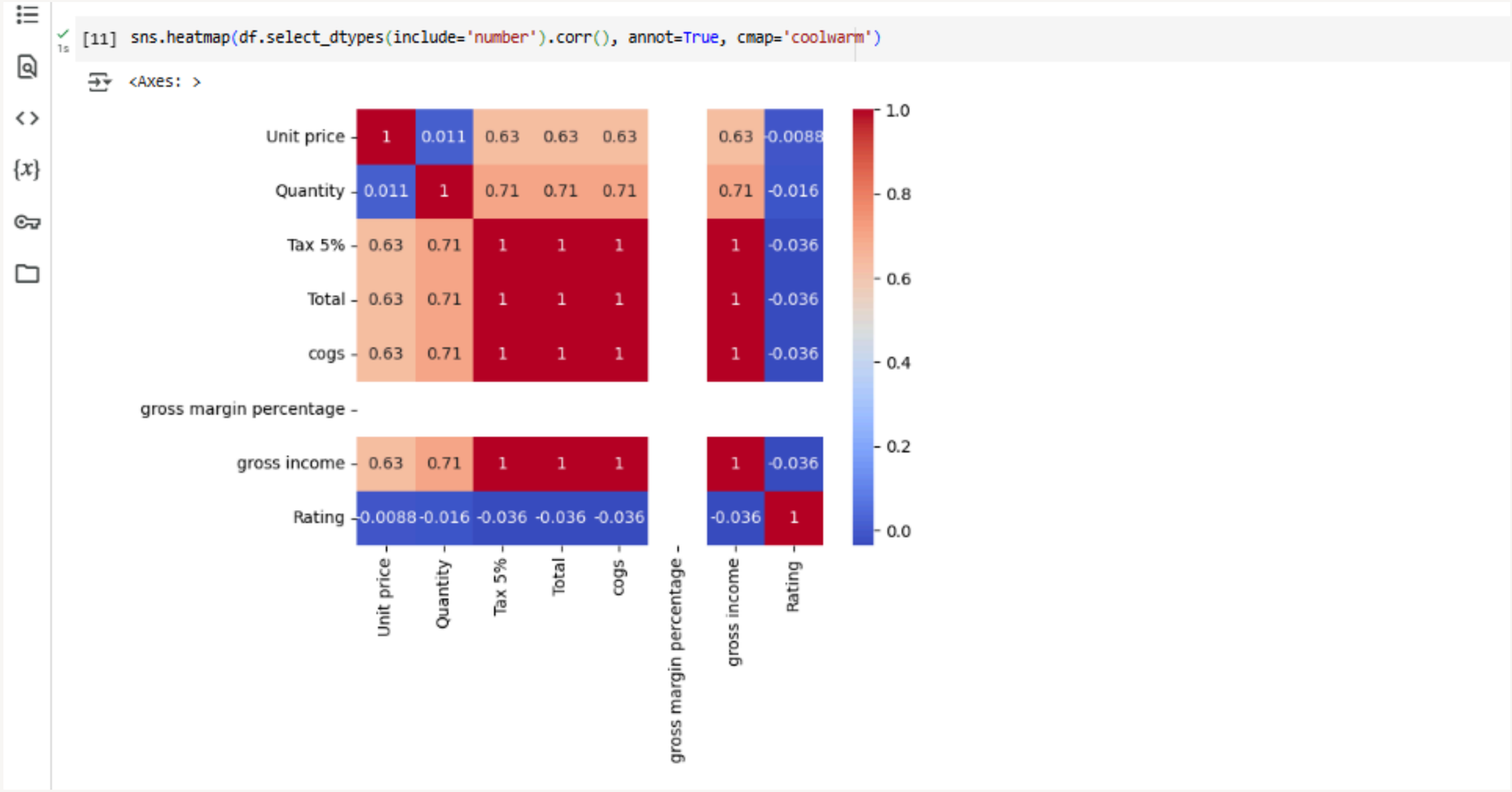
Data Analysis Insights

- Average Rating: 7
- Total Sales: 323K
- Total Tax: $15K
- Top City by Sales: Naypyitaw
- Most Profitable Product Line: Food and Beverages
- Payment Methods: Mostly Credit Card and Ewallet
- Gender Distribution: Fairly balanced
- Branch C: Highest tax contributions

Dashboard Overview

Python Code Summary

Python was used to clean and preprocess the dataset using libraries like Pandas. Basic EDA was performed using Seaborn and Matplotlib to understand sales distribution and trends.



Conclusion

The sales analysis provided valuable insights into consumer behavior, sales trends, and operational performance. By combining Power BI and Python, we were able to gain a deeper understanding of the data and present it in an intuitive and actionable format.

Thank you