Sales Transaction Analysis Report

1. Introduction

This project presents an in-depth analysis of a sales transaction dataset from a coffee-related retail business. It involves structured data of transactions, products, store locations, and categories. The aim is to derive actionable insights from historical sales data for better decision-making.

2. Objective

The primary objective of this project is to perform exploratory data analysis (EDA) on the sales dataset, understand product performance, evaluate store-level activity, and uncover trends in customer purchasing behavior over time.

3. Dataset Overview

The dataset comprises multiple sheets:

- Sheet1: Detailed transaction-level data including transaction ID, date, time, store, location, product details, and unit price.

- Sheet2: Aggregated sales data by product type showing the total unit price earned per product.

- Sheet3: Empty or possibly a placeholder for future analysis.

4. Key Insights

From the preliminary data:

- High-frequency purchases observed in categories like 'Gourmet brewed coffee' and 'Biscotti'.

- Store location 'Hell's Kitchen' appears dominant in transactions.

- Certain products show consistent performance across different times and dates.

5. Uses and Applications

This project can be used for:

- Identifying top-performing products and locations.

- Planning inventory based on demand patterns.

- Strategic pricing decisions.

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- Supporting marketing campaigns with product popularity data.

6. Advantages

- Real-time business insights from historical data.

- Improved resource allocation and inventory planning.

- Data-driven decision making across departments.

- Enhanced understanding of customer behavior and preferences.

7. Conclusion

The project successfully analyzes transactional data to derive meaningful insights for business growth. With further visualization and predictive modeling, this can evolve into a powerful decision-support system.