

# Title: Coffee Sales Analysis Project

- Project Goal:** To analyze coffee sales data and provide actionable insights to improve business performance.
- Data Source:** A dataset containing sales transactions from a coffee business, including dates, times, coffee types, and revenue.

# Data Overview and Preparation

## ► Data Cleaning and Feature Engineering

- **Initial Data:** The dataset contained 1,133 entries with columns for date, time, cash type, card, money, and coffee name.
- **Data Cleaning:** The raw data was cleaned by converting date, datetime, and money columns to the correct data types, and any rows with missing key values were removed.
- **New Features:** Additional columns for the month, weekday, and hour of the transaction were created to help with the analysis.

# Key Findings - Top Products

## ► Bestselling Coffees by Revenue and Transactions

- **Top 3 Coffees by Revenue:**

- Latte: \$9,009.14
- Americano with Milk: \$8,601.94
- Cappuccino: \$7,333.14

- **Most Popular Coffees (by Transactions):**

- Americano with Milk: 268 transactions
- Latte: 243 transactions
- Cappuccino: 196 transactions

# Key Findings - Sales Patterns

## ► Daily and Hourly Sales Trends

- **Daily Sales:** The analysis of daily sales shows predictable weekly ups and downs, with peak demand typically occurring on weekdays.
- **Peak Hours:** Demand is highest in the mornings, aligning with typical office hours.
  - 11 AM is the peak hour with the most transactions.
  - Sales are generally strong between 10 AM and 2 PM.

# Conclusion and Recommendations

## ► Summary and Business Recommendations

- **Summary:** The coffee business has clear sales patterns based on coffee type, time of day, and weekday. The top-selling products are the main contributors to revenue, and sales trends are predictable.
- **Business Recommendations:**
  - **Promotions:** Focus marketing and promotions on the best-selling coffees.
  - **Staffing & Stock:** Prepare extra staff and inventory during peak hours, particularly weekday mornings.
  - **Loyalty Program:** Introduce a loyalty program for repeat customers by using card-based tracking to encourage customer retention and personalized marketing.
  - **Inventory:** Use sales forecasts to plan inventory and minimize waste.