



## Introduction

For An aspiring coffee shop in a big and competitive city like New York understanding sales patterns across different stores with respect to time and product mix is important. Analysis of this data is also important for raw material suppliers to coffee stores. This case study aims to leverage a data of 1.49 lakh + transactions of sales across different coffee shops to derive crucial insights from the data. By identifying trends across stores, products, transactions, location, transaction amount, day, date and time from the data it can help all the associated stakeholders in this business case.

### Part 1:

#### Store Performance Analysis

- Which stores generate the highest revenue, and what factors contribute to their success?
- Are there underperforming stores, and what strategies can be applied to improve them?

#### Product Sales & Pricing Optimization

- Which product categories and types contribute the most to revenue and sales volume? What can be the reasons for the same?
- Are there seasonal or time-based sales trends that can inform better pricing or promotions?
- Determine average sales trend per transaction in terms of value and quantity for different products and suggest what should the stores do to maximise their revenue with respect products.
- Determine monthly sales trends and analyse if there is any growth or seasonality involved here overall as well as for different stores.

#### Inventory & Operational Efficiency

- What are the peak transaction hours and days across different locations?
- How can we optimize inventory and staffing schedules based on sales patterns?

#### Basket & Cross-Selling Opportunities

- Which products are frequently bought together?
- How can bundling and promotional strategies be used to increase revenue?

## Part 2 : What factors influence repeat purchases and store loyalty?

- Identify stores with high repeat transaction patterns and create strategies to boost customer retention through loyalty programs or personalized offers.
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### DATA

- **transaction\_id** : Unique sequential ID representing an individual transaction
- **transaction\_date** : Date of the transaction (MM/DD/YY)
- **transaction\_time** : Timestamp of the transaction (HH:MM:SS)
- **transaction\_qty** : Quantity of items sold
- **store\_id** : Unique ID of the coffee shop where the transaction took place
- **store\_location** : Location of the coffee shop where the transaction took place
- **product\_id** : Unique ID of the product sold
- **unit\_price** : Retail price of the product sold
- **product\_category** : Description of the product category
- **product\_type** : Description of the product type
- **product\_detail** : Description of the product detail

### Evaluation Criteria

1. **Part 1 and Part 2** will have equal weightage in final evaluation
2. **Presentation Skills**: Clarity and effectiveness of your presentation in highlighting key metrics and insights for the CEO.
3. **Data-driven Recommendations**: Feasibility and rationale behind your solutions, showing strong data alignment and clear strategic value.
4. **Rationale**: Logical and convincing reasoning behind your insights and recommendations, using qualitative and quantitative support.
5. **Structural Clarity**: Organization and flow, ensuring a logical progression from problem identification to analysis and actionable recommendations.
6. **Analysis & Insights**: Depth and relevance of your analysis, focusing on the quality of insights and alignment with business goals.

### Rules

1. The presentation should consist of a maximum of 5 slides (excluding the cover slide).
2. Submission format: PDF on the Unstop platform, using the naming convention "TeamName\_SchoolName.pdf".

3. Plagiarism checks will be conducted, and teams with similarities to other solutions will be disqualified.