Methodology

**Bright Coffee Shop: Transaction Data Analysis Plan**

**1. Objective**

Analyse historical transaction data to uncover actionable insights that support the CEO's goals of increasing revenue and optimizing product performance.

**2. Data Collection**

* **Source**: Excel file containing daily transactional records.
* **Key Fields**:
  + Product Type
  + Product Category
  + Store Location
  + Unit Price
  + Transaction Time

**3. Data Processing**

**Convert Excel spreadsheet to a CSV file.**

* **Environment**: Snowflake - Load csv file
* **Steps**:
  + Derive additional fields:
    - Total amount = unit\_price \* transaction\_qty
    - Transaction time bucket (grouped into different time stamps of the day. E.g. Morning, brunch, midday, evening, night)
  + Aggregate data for efficient querying and analysis.

**4. Data Analysis**

* **Tools**:

Snowflake - SQL for analysis.

Excel/Power BI for data visuals.

Canva to compile the full presentation.

* **Focus Areas**:
  + Revenue by product category and individual product.
  + Sales distribution across different times of the day.
  + Identification of best- and worst-performing products.
  + Recommendations.

**5. Visualization & Reporting**

* **Deliverables**:
  + Interactive dashboards in Power BI and Excel with pivot tables and charts.
  + Visual narratives highlighting key performance indicators (KPIs), sales trends, and customer behaviour patterns.

**6. Presentation**

* **Audience**: CEO and executive team.
* **Format**:
  + Concise visual summary of findings.
  + Strategic recommendations, such as:
    - Targeted promotions for underperforming products.
    - Inventory adjustments based on sales peaks.
    - Optimized product mix and pricing strategies.