

# **Fuzzy Matching and Data Consolidation**

## **Challenge Description:**

### 1. Fuzzy Matching:

- Task: You will receive two datasets with customer information and transactions.
- **Objective:** Use fuzzy matching techniques to merge these datasets, correcting typographical errors in customer names.
- o **Tools:** Python (libraries for fuzzy matching, e.g., fuzzywuzzy).

# 2. Snowflake Storage and Queries:

- Task: Load the merged dataset into Snowflake.
- Objective: Execute SQL queries to generate a consolidated report on buying patterns.
- o **Tools:** Snowflake (SQL for querying).

### 3. Analysis in Jupyter Notebook:

- Task: Analyze the merged data in Jupyter Notebook.
- o **Objective:** Identify trends and patterns, and document findings.
- **Tools:** Python (Matplotlib or Seaborn for visualizations).

#### 4. Visualization in Tableau:

- Task: Develop a Tableau dashboard to showcase the buying patterns and other significant insights.
- Objective: The dashboard should enable interactive exploration of the consolidated data.
- Tools: Tableau (for visualization).

#### **Deliverables:**

- Python code for fuzzy matching and data consolidation, uploaded to a GitHub repository.
- SQL script for queries, included in the repository.
- Jupyter Notebook with analysis and visualizations.