Approach

1. **Prepare the Dataset**: Combine `Customers.csv`, `Transactions.csv`, and `Products.csv` to create a single dataset for modeling.
2. **Feature Engineering**: Generate features like:
    - Total transactions and spending.
    - Product categories purchased.
    - Signup region.
3. **Similarity Calculation**: Use a similarity metric like cosine similarity to find similar customers.
4. **Top 3 Recommendations**: For each customer, recommend the top 3 most similar customers.

How It Works

1. **Feature Engineering**:
    - `TotalTransactions`: Number of transactions per customer.
    - `TotalSpending`: Total value of transactions per customer.
    - `Region`: One-hot encoded to capture customer locations.
2. **Scaling**:
    - Normalize features using `StandardScaler` to ensure fair distance calculations.
3. **Similarity**:
    - Use `cosine_similarity` to calculate similarity between customers.
4. **Recommendations**:
    - For each customer, the top 3 most similar customers (excluding the customer itself) are stored with their similarity scores.

Output

The generated CSV file (`FirstName_LastName_Lookalike.csv`) will have the following structure:

CustomerID	Recommendations
C0001	[(C0002, 0.9823), (C0005, 0.9741), (C0003, 0.9715)]
C0002	[(C0003, 0.9647), (C0001, 0.9512), (C0004, 0.9485)]
...	...