MARKET BASKET INSIGHTS

Problem definition:

The problem is to perform market basket analysis on a provided dataset to unveil hidden patterns and associations between products. The goal is to understand customer purchasing behavior and identify potential cross-selling opportunities for a retail business. This project involves using association analysis techniques, such as Apriori algorithm, to find frequently co-occurring products and generate insights for business optimization.

Design thinking:

1.Data Source: Choose a dataset containing transaction data, including lists of purchased products.

2.Data Preprocessing: Prepare the transaction data by transforming it into a suitable format for association analysis.

3.Association Analysis: Utilize the Apriori algorithm to identify frequent itemsets and generate association rules.

4.Insights Generation: Interpret the association rules to understand customer behavior and cross-selling opportunities.

5.Visualization: Create visualizations to present the discovered associations and insights.

6.Business Recommendations: Provide actionable recommendations for the retail business based on the insights.