

MARKET BASED INSIGHTS

Problem Definition: The task is to perform market basket analysis on a given dataset in order to uncover hidden patterns and product connections. The purpose is to find possible cross-selling opportunities for a retail organisation by understanding client purchase behaviour. This project entails employing association analysis techniques such as the Apriori algorithm to identify frequently co-occurring goods and generate recommendations 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: Utilise the Apriori algorithm to identify frequent itemsets and generate association rules.
4. Insights Generation: Interpret the association rules to understand customer behaviour and cross-selling opportunities.
5. Visualisation: Create visualisations to present the discovered associations and insights.
6. Business Recommendations: Provide actionable recommendations for the retail business based on the insights.

Data-Driven Insights:

- Apply association analysis techniques like the Apriori algorithm to the provided dataset to uncover hidden product associations.
- Go beyond traditional market basket analysis by incorporating sentiment analysis from customer reviews and social media data to gauge product popularity and sentiment.