Market basket insights

1. Data Preparation: Gather transactional data, where each row represents a customer's purchase. The columns could include items purchased, transaction ID, customer ID, etc.

2. Feature Engineering: Create features that can be used to train the XGBoost model. For market basketanalysis, this could involve calculating item frequencies, association rules, or other relevant metrics.

3. Labeling: Define the target variable or label. In market basket analysis, it's typically binary, indicating whether a specific item was purchased
In a transaction

4.Training: Use XGBoost to train a model to predict the likelihood of purchasing a specific item based onthe features and labels.This model can uncover patterns and relationships within the data.

5. **Prediction:** After training, you canuse the model to make predictions on new data. For example, you canpredict which items are likely to be

purchased together in a basket.

6. **Interpretation:** Analyze the model'sresults and feature importance

scores to gain insights into whichitems are frequently purchased together, what factors influence these purchases, and which items are more likely to drive sales.

7.Recommendations: Based on the insights gained from the model, you can make recommendations for product placements, marketing strategies, or bundling deals to optimize sales and customer experience

8.Continuous Improvement: Market basket analysis with XGBoost can be an ongoing process. Continuously update and retrain the model as new transactional data becomes available to

Adapt to changing customer preferences

Benefits of Market Basket Analysis

Increasing Market Share

Behavior analysis

Optimization of in-store operations

Compaigns & promotions

Recommend-ations

Market Basket Analysis Types

1. Descriptive market basket analysis

2. Predictive market basket analysis

3. Differential market basket analysis