

A Data Mining Approach to Market Basket Analysis using the Apriori Algorithm and Association Rule Mining

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Abstract:

Every day, new business data is generated. This necessitates the analysis of such data, which is crucial. Data mining, which provides methods and techniques for extracting knowledge and insights from data, can meet this demand. The basic purpose of data mining is to transform the data into useful knowledge. This research focuses on the principles of data mining and the patterns that may be mined in order to turn data into usable knowledge by examining it. This research will make use of the Bread Basket dataset for market basket analysis. Market basket analysis is a strategy mostly used by marketers to improve their companies' performance. One of the methods that aids in the discovery of association rules for frequent item sets is the Apriori algorithm. Market Basket Analysis looks for meaningful association rules in the form of statements like "People who buy X are likely to buy Y" in customer purchase data.

Keywords:

Apriori Algorithm, Market Basket Analysis, Bread Basket Dataset, Association Rules, Patterns.