Association Rule Mining Using Support-Order Tree and Apriori Algorithm

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Abstract

Many valuable data have been stored in database for years in business world. Due to rapid growth in size and number of database, raw data are so abundant that manual analysis is no longer possible. Thus, the importance of data mining is apparent with the advent of powerful data collection and storage tools. The association rule mining is needed in order to search for interesting relationship among items from a very large database. Apriori algorithm is a simple and easy algorithm for finding association rule among item. In Apriori candidate generation strategy, the generation of candidate 2-itemsets is the main bottleneck. Several novel data structures are used to improve data mining efficiency. In this paper, we would like to develop a system for market basket analysis on mini market store which will be generated strong efficient rule among itemsets with the use of Support-Order Tree and easy Apriori algorithm. Support-Order Tree is used to quickly discover L1 and L2, and then the rest of frequent itemsets are discovered applies Apriori Algorithm.