Abstract

Association rule mining has become particularly popular among marketers. In fact, an example of association rule mining is known as market basket analysis. The task is to find which items are frequently purchased together. This knowledge can be used by professionals to plan layouts and to place items that are frequently bought together in close proximity to each other, thus helping to improve the sales. Association rule mining involves the relationships between items in a data set. Association rule mining classifies a given transaction as a subset of the set of all possible items. Association rule mining finds out item sets which have minimum support and are represented in a relatively high number of transactions. These transactions are simply known as frequent item sets. The algorithms that use association rules are divided into two stages, the first is to find the frequent sets and the second is to use these frequent sets to
generate the association rules. In this paper the applications, merits and demerits of these algorithms have been studied. This paper discusses the respective characteristics and the shortcomings of the algorithms for mining association rules. It also provides a comparative study of different association rule mining techniques stating which algorithm is best suitable in which case.

References

- Seminar-Reports/008/67999308-datamining-intro. pdf
- Webb, I. G. "Efficient Search for Association Rules". 6th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD 2000), Boston, MA, New York, NY.
- Borgelt, C. "Efficient Implementations of Apriori and Eclat". Workshop of frequent item set mining implementations (FIMI 2003, Melbourne, FL, USA).
- Borgelt, C. "Finding frequent itemsets by Recursive Elimination algorithm". Workshop Open Source Data Mining Software (OSDM&amp;apos;05, Chicago, IL), 1-5 ACM Press, New York, NY, USA 2005.

Index Terms

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Keywords

Association rule mining  market based analysis  frequent sets  transactions  association rules

relationships.