Abstract

Association rule mining is one of the most interesting and challenging task in data mining process. There exists many association rule mining techniques, each having merits and demerits. The main problem that exists in many traditional association rule mining algorithms is that these algorithms need more than one database scan to generate association rules. As scanning the database is a costly operation, algorithms capable of generating association rules with only one scan is the need of the hour. In this paper, a novel algorithm for generating association rules is presented which uses hashing function. This algorithm scans the database only once by utilizing the latest version of priori algorithm, direct hashing algorithm and pruning process. The algorithm discovers set of association rules from frequent k-item sets by computing the frequency of each item set. Then pruning process is applied to minimize the number of item sets generated after scanning the size of the database. Experimental results show that our method is very effective in generating association rules without any collision, leading to very high data accuracy.
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Computer Science

Index Terms
Data Mining

Keywords
Association Rule Mining  ARM  Hashing  Pruning  Basket Market Analysis  Apriori Algorithm