Abstract

The essential problem in many data mining applications is mining frequent item sets such as the discovery of association rules, patterns, and many other important discovery tasks. Fast and less memory utilization for solving the problems of frequent item sets are highly required in transactional databases. Methods for mining frequent item sets have been implemented using a prefix-tree structure, known as an FP-tree, for storing compressed information about frequent item sets which is too large to fit in memory. GenMax, a search based algorithm is used for mining maximal frequent item sets. GenMax uses a number of optimizations to prune the search space. It uses a technique called progressive focusing to perform maximal checking, and differential set propagation to perform fast frequency computation. The proposal in this paper present an improved index based enhancement on GenMax algorithm for effective fast and less memory utilized pruning of maximal frequent item sets and closed frequent item sets. The proposed model reduce the number of disk I/Os and make frequent item set mining scale to large transactional databases. Experimental results shows a comparison of improved index based GenMax and existing GenMax for efficient pruning of maximal frequent and closed frequent item sets in terms of item precision and fastness.
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**Index Terms**

Computer Science  
Data Mining

**Keywords**

Indexing  Indexed Genmax  Itemset Mining