Abstract

Frequent pattern mining is the most researched field in data mining. This paper provides comparative study of fundamental algorithms and performance analysis with respect to both execution time and memory usage. It also provides brief overview of current trends in frequent pattern mining and its applications. There are two categories of frequent pattern mining algorithms, namely Apriori algorithm and Tree structure algorithm. The Apriori based algorithm uses generate and test strategy approach to find frequent pattern by constructing candidate itemsets and checking their counts and frequency from transactional databases. The Tree structure algorithm uses a text only approach. There is no need to generate candidate item sets. Many tree based structures have been proposed to represent the data for efficient pattern discovery including FP-Tree, CAT-Tree, CAN-Tree, CP-Tree, and etc. Most of the tree based structure allows efficient mining with single scan over the database. In this paper, we describe the formatting guidelines for IJCA Journal Submission.

**Index Terms**

Computer Science  
Algorithms

**Keywords**

Frequent Pattern, Data mining, Apriori, ECLAT, RElim, SaM, FP-Tree, CATS-Tree, CAN-Tree, CP-Tree.