PFIMII: Parallel Frequent Itemset Mining using Interval Intersection

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 156
Number 13

Year of Publication: 2016

Authors:
Neelam Duhan, Parul Tomar, Amit Siwach

10.5120/ijca2016912586

Abstract

Data Mining techniques are helpful to uncover the hidden predictive patterns from large masses of data. Frequent item set mining also called Market Basket Analysis is one the most famous and widely used data mining technique for finding most recurrent itemsets in large sized transactional databases. Many methods are devised by researchers in this field to carry out this task, some of these are Apriori, Partitioning approach and Interval Intersection etc. In this paper, a new approach is being proposed to find the frequent item sets using Interval Intersection and Apriori Algorithm, which produces results in parallel on several partitions of dataset. For representing the item sets, interval sets are used and for calculating the support count, interval intersection operation is used. The experimental results indicate that the proposed approach is accurate and produces results faster than Apriori Algorithm.

References

1. Aggaraval R; Imielinski.t; Swami.A. “Mining Association Rules between Sets of Items in
2. Jiawei Han And Micheline kamber, “Frequent item set mining methods”, Data Mining concepts and techniques.


**Index Terms**

Computer Science Information Sciences

**Keywords**

Frequent Item set mining, A-priori, Partition Algorithm, Interval Intersection, Support count.