Abstract

Infrequent Weighted Association Mining (IWAM) is one of the main areas in data mining for extracting the rare items in high dimensional datasets. Traditional Association rule mining algorithms produce large number of candidate sets along with the database scans. Due to large number of transactions and database size, traditional methods consume more time to find the relevant association rules with the specified threshold. Prior and post database scans are required an additional effort to validate the association rules. Most of the existing weighted models are implemented for mining frequent itemsets, but finding infrequent itemset mining are useful in many recent fields like web, medical, cloud, complex databases, protein sequence etc. In weighted infrequent association rule mining, each item in the transaction is assigned a weight in order to mine high utility infrequent itemsets. In this proposed work, weighted association rule mining algorithm is proposed to find infrequent itemsets using weighted threshold measures. Proposed approach gives better results on real-time datasets compare to existing weighted models.
References

- Li, W., Han, J., and Pei, J. (2001), "CMAR: Accurate and Efficient Classification based on Multiple-Class association rule", In ICDM’01, pp. 369-376.
- He Jiang, Xiumei Luan and Xiangjun Dong, "Mining Weighted Negative Association Rules from Infrequent Item sets Based on Multiple Supports", International Conference on Industrial Control And Electronics Engineering, 2012.
- Infrequent Weighted Item set Mining using Frequent Pattern Growth, IEEE Transactions On Knowledge and Data Engineering, Vol. 26, No. 4, 1041-4347 2014.

Index Terms

Computer Science

Data Mining

Keywords

Weighted association rules Positive rule Measures Infrequent itemsets.