A New MFI Mining Algorithm with effective Pruning Mechanisms

Abstract

Mining of frequent patterns is a basic problem in data mining applications. Frequent Itemset Mining is considered to be an important research oriented task in data mining, due to its large applicability in real world applications. In this paper, a new Maximal Frequent Itemset mining algorithm with effective pruning mechanism is proposed. The proposed algorithm takes vertical tidset representation of the database and removes all the non-maximal frequent item-sets to get exact set of MFI directly. Pruning is done for both search space reduction and minimizing the number of frequency computations. It works efficiently when the number of item-sets and tid-sets are more. The proposed approach has been compared with Mafia algorithm for mushroom dataset and the results shows that the proposed algorithm performs effectively and generates frequent patterns faster. In order to understand the algorithm easily, an example is provided in detail.

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Index Terms

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