Abstract

In data mining, term frequent pattern extraction is largely used for finding out association rules. Generally association rule mining approaches are used as bottom-up or top-down approach on compressed data structure. In the past, different works proposed different approaches to mine frequent patterns from giving databases. In this paper, we propose a new approach by applying the closed & intersection approach using compressed data structure. We have used closed as bottom-up and intersection as top-down approach. This combined approach allows diminishing the search time by reducing database scan for finding out closed frequent patterns and their association rules. The time complexity of the proposed algorithm is less while the classical approach like a priori has taken more time for given items in the dataset. Experimental results show that our approach is more efficient and effective than a traditional apriori algorithm.
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**Index Terms**

Computer Science  
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**Keywords**

Closed Approach  
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