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AN EFFECTIVE AND EFFICIENT METHODOLOGY TO REDUCE SPACE CONSTRAINT IN OPTIMIZED ASSOCIATION RULE MINING

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ABSTRACT

Association rule learning is a well researched and well explored approach to determining the interesting relatives in high dimensional data along with variables. It analyzes and gives the strong rules discovered in databases by means of diverse measures of interestingness. On the other hand, find out the threshold values of support and confidence is critically affect the association rule mining quality or accuracy. In the previous works, proposed an optimization technique such as PSO, Modified PSO and Modified AFSA to overcome these problems. Even though in those system memory consraints are left. This is the considerable disadvantage in the system. Most of the algorithms consume more space, generate many candidate item sets, unnecessary items exists, primary clustering and collision occurs in the hash based linear probing method, it takes more time to find a frequent item sets, etc. In order to reduce the space constraint as well as to address scalability, we use Cuckoo Hashing which is also one of the open addressing techniques. Additionally with the intension of increase the accuracy of the system and further reduce the space constraint we are introduce the rule pruning strategy using branch and bound algorithm. From the experimentation result on a dataset shown that the proposed system is undoubtedly reduce the memory constraints as well as it will be used for increasing the accuracy of the system.

KEYWORDS: Association Rule Mining, Branch and Bound, Frequent Item Sets, Hashing and Rule Pruning Strategy