

## ABSTRACT

Data mining purpose is to find interesting patterns within great number of data. One of its functionality is association that is finding association rule which meet minimum support value (minsup) and minimum confidence (minconf). Association technique by using a minsup has been developed in many researches. Using single minimum support in data which frequency of items vary a great deal can make problems. If minsup is too high, there wouldn't be found any rules contain rare item, if minsup is too low there would be too many rules find and some rules are meaningless.

In this final task, I already have implemented the using of multiple minimum supports using MSApriori algorithm in order to solve that problem. This technique allows users to specify different minimum item support (MIS) threshold for each item, so different rule may satisfy different minimum support.

By using *multiple minimum supports*, minsup threshold become flexible, because each item have its own minimum item support (MIS). To generate rules that involves rare item, its can be done by giving very low MIS for the items. Because the number of frequent itemsets and association rules decrease, by using multiple minimum supports could improve the efficiency of frequent itemsets and association rules generation.

*Keyword : minimum support, multiple minimum supports, frequent itemsets, association rules*