

## ABSTRACT

Association rules have become an important paradigm in knowledge discovery. Association rules have proved to be a practical tool in order to find tendencies in database. Nevertheless, the huge number of rules which are usually obtained from standard datasets limit their applicability. In order to solve this problem, several solutions have been proposed, as the definition of subjective measures or objective measures of interest for the rules.

Other approaches try to obtain different kinds of knowledge, referred to as peculiarities, infrequent rules, or exception. In general, the latter approaches are able to reduce the number of rules derived from the input dataset. This Final Project is focused on the new kinds of knowledge discovery, namely anomalous association rules. Anomalous rules are the rules that are hidden, and very interesting to know that there are new kinds of rules obtained from behaviour deviation in general rules. The anomalous discovery uses some method and also modifications of algorithm, so that anomalous rules are found. Anomalous rules are association rules that are hidden by a dominant rule. In this final project, we will try to implement modifications to find anomalous association rules, that is in Apriori-based algorithm, what we'll call Anomaly-TBAR algorithm.

**Keyword :** *Association rules, interestingness, infrequent rules, anomalous association rules, dominant rules, Apriori-based algorithm, Anomaly-TBAR*