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Extraction of association rules based on the genetic algorithm and data mining techniques

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We are interested in our project to design and implement a tool dedicated to the automatic generation of association rules from a database. In order to generate the most relevant rules, we have considered in this work three different approaches: extraction of rules from three data mining algorithms (Apriori, Close, Chram); enrichment of approach one by the application of the genetic algorithm and; use of the genetic algorithm before applying any of the data mining algorithms. In addition, we proposed two measures of relevance: weighted dominance and mean support. A modeling with the UML language was done before developing the extraction tool that supports our three approaches. Several experiments were carried out with a basis related to the purchases of products. The results show that the third approach has generated the most relevant rules.

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