OPTIMIZED ASSOCIATION RULE MINING USING GENETIC ALGORITHM

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ABSTRACT

The rapid development of computer technology, especially increased capacities and decreased costs of storage media, has led businesses to store huge amounts of external and internal information in large databases at low cost. In general, the rule generated by association rule mining algorithms like priori, partition, pincer-search, incremental, border algorithm etc, does not consider negation occurrence of the attribute in them and also these rules have only one attribute in the consequent part. In OARM (Optimized Association Rule Mining) the genetic algorithm is applied over the rules fetched from Apriori association rule mining. By using GA (Genetic Algorithm) the system can predict the rules which contain negative attributes in the generated rules along with more than one attribute in consequent part. The major advantage of using GAs in the discovery of prediction rules is that they perform global search and its complexity is less compared to other algorithms as the genetic algorithm is based on the greedy approach.

The main objective of this system was to implement association rule mining of data using genetic algorithm to improve the performance of accessing information from databases (Log file) maintained at server machine.The goal of our system was to find all the possible optimized rules from given data set using genetic algorithm and also to improve the performance by minimizing the time required for scanning huge databases maintained at server machines with the implementation of advanced data mining algorithms.

KEYWORDS: Data mining, algorithms, classification, web server.