

REDUCE SCANNING TIME INCREMENTAL ALGORITHM (RSTIA) OF ASSOCIATION RULES

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ABSTRACT

In the real world where large amounts of data grow steadily, some old association rules can become stale, and new databases may give rise to some implicitly valid patterns or rules. Hence, updating rules or patterns is also important. A simple method for solving the updating problem is to reapply the mining algorithm to the entire database, but this approach is time-consuming. This paper reuses information from old frequent itemsets to improve its performance and addresses the problem of high cost access to incremental databases in which data are very changing by reducing the number of scanning times for the original database. a log file has been used to keep track of database changes Whenever, a transaction has been added, deleted or even modified, a new record is added to the log file. This helps identifying the newly changes or updates in incremental databases. A new vertical mining technique has been used to minimize the number of scanning times to the original database. This algorithm has been implemented and developed using C#.net and applied to real data and gave a good result comparing with pure Apriori.

Keywords: Data mining; Vertical mining; Association rules; Incremental databases.