Abstract

Relational database management systems manages the tables with predefined indexes. In RDBMS indexes are created on the basis of attribute values. The Imine indexing scheme is used to index item sets in relational databases. The index creation is performed without any constraints. IMine provides a complete representation of the original database. The Imine indexing scheme reduces the input/output cost for item set extraction and management.
process. The Imine index method supports different item set extraction algorithms. Different rule mining algorithms are supported by Imine index scheme. At present the Imine index scheme is developed under PostgreSQL DBMS.

The item set extraction and indexing operations are integrated in the system. The IMine scheme is improved to handle incremental data. In the incremental data handling mechanism the item sets and indexes are updated with respect to transactional database changes. The data add, modify and remove operations are supported by the proposed index method. Reindexing process is optimized. Data structure is updated to handle all data distribution. The proposed item set extraction and indexing scheme is designed for the Oracle relational database. The system development is planned using J2EE environment.

General and compact structure - Provide tight integration of item set extraction - Can be efficiently exploited by different item set extraction algorithm - In particular, FP-growth and LCM v.2 - Has been integrated into the PostgreSQL DBMS

Reference

- J. Pei, J. Han, and L.V.S. Lakshmanan, “Pushing Convertible Constraints in Frequent Itemset Mining,” Data Mining and Knowledge Discovery, vol. 8, no. 3, pp. 227-252, 2004.

Index Terms

Computer Science

Wireless Networks
Key words

IMine
I-B Tree
LCM
FP-Growth

CFP Tree