Abstract

Data mining techniques are useful to discover hidden patterns from the large databases. Association rule mining is one of the important data mining techniques to discover relationships between items or item sets. In many organizations the database may exist in centralized or in distributed environment. In distributed environment, database may be partitioned in different ways such as horizontally partitioned, vertically partitioned and mixed mode which consists of both horizontal and vertical partitioning methods. The sites in the distributed environment interested to find association rules by participating themselves in the mining process without disclosing their individual private data/information. In this paper, a new model is proposed to find association rules by satisfying the privacy constraints for vertically partitioned databases at n number of sites along with data miner. This model adopts cryptography techniques such as encryption, decryption techniques and scalar product technique to find association rules efficiently and securely for vertically partitioned databases.
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Index Terms

Computer Science
Data Mining

Keywords
Privacy Preserving Association Rule Mining Distributed Databases Cryptography Scalar Product