Abstract

Association Rule Mining from transaction-oriented databases is one of the important processes that finds relation between items and plays an important role in decision making. Parallel algorithms are required because of the large size of the database to be mined. Most of the algorithms designed were for homogeneous systems using static load balancing techniques which are far from reality. A parallel algorithm for heterogeneous systems is regarded as one of the most promising platforms for association rule mining. In this paper, we propose a simple parallel algorithm for association rule mining on heterogeneous systems with dynamic load balancing based on Par-Maxclique algorithm. We maintain one linked list at the scheduler end that keeps track of load values of every processor, and each processor is having a job queue associated with it which is served in First come first basis. On the basis of load value, the scheduler directs the migration of tasks from heavily loaded to least loaded processors in the cluster during execution and thus balances load dynamically in a cluster.

Reference

Parallel Association Rule Mining on Heterogeneous System


Index Terms

Computer Science
Programming
Languages
Key words

Parallel association rule mining
Heterogeneous system
Par-MaxClique algorithm