Parallel Association Rule Mining on Heterogeneous System

Abstract

Association Rule Mining from transaction–oriented databases is one of the important process that finds relation between items and plays important role in decision making. Parallel algorithms are required because of large size of the database to be mined. Most of the algorithms designed were for homogeneous system uses static load balancing technique which is far from reality. A parallel algorithm for heterogeneous system 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 system with dynamic load balancing based on Par-Maxclique algorithm. We maintain one linked list at the scheduler end that keep track of load value 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 scheduler directs the migration of task from heavy loaded to least loaded processor in the cluster during the execution and thus balances load dynamically in a cluster.

Reference


Index Terms

Languages

Computer Science Programming
Key words

Parallel association rule mining
Heterogeneous system
Par-MaxClique algorithm