Abstract

Query optimization is the most critical phase in query processing. Query optimization in distributed databases explicitly needed in many aspects of the optimization process, this is not only increases the cost of optimization, but also changes the trade-offs involved in the optimization process significantly. This paper describes the synthetically evolution of query optimization methods from uniprocessor relational database systems to parallel database systems. We point out a set of parameters to characterize and compare query optimization methods, mainly: (i) type of algorithm (static or dynamic), (ii) working environments (re-optimization or re-scheduling) and (iii) level of modification. The major contributions of this paper are: (I) Understanding the mechanisms of query optimization methods with respect to the considered environments and their constraints (e.g. parallelism, distribution, heterogeneity, large scale, dynamicity of nodes). (ii) Study the problem of query optimization particular in term of heterogeneously environment and pointing out their main characteristics, which allow comparing them and help to Implement new query optimization algorithm and model. These contributions is led to performance enhancement of query optimization in distributed database system through classify by different QEPs and minimize the response time.
References

Index Terms

Computer Science  Databases

Keywords

Query optimization  distributed query optimization  query optimization algorithm.