

异构数据集成查询处理研究

毛佳飞, 叶霞, 李俊山
(火箭军工程大学 信息工程系, 陕西 西安 710025)

摘要: 对集成系统的查询分解和查询优化进行了深入的研究.在查询分解方面设计了依据全局元数据字典的分解算法,并以实例证明了算法的准确性.在查询优化方面提出了基于XML Schema 的查询优化算法,该方法可以有效处理路径表达式中“//”和“*”情况,充分利用局部数据源XML Schema 信息减小了查询节点范围,减少了连接操作次数,提高了集成系统的查询效率.

关键词: 异构数据; 数据集成; 查询分解; 查询优化

Research on Heterogeneous Data Integration Query Processing

MAO Jia-fei, YE Xia, LI Jun-shan

(Department of Information Engineering, Rocket Force University of Engineering, Xi'an
710025, China)

Abstract: In the aspect of query decomposition, a decomposition algorithm based on global metadata dictionary was designed, and the accuracy of the algorithm was proved by an example. In the query optimization, an query optimization algorithm based on XML Schema was proposed. This method could effectively deal with the // and * cases in the path expression, and made full use of the local data source XML Schema information to reduce the query node range, decreased the times of connection operation and improved the query efficiency of integration system.

Key words: heterogeneous data; data integration; query decomposition; query optimization

作者简介:

毛佳飞男, (1992-), 硕士研究生.研究方向为数据库技术、数据集成.E-mail:
1660702907@qq.com.

叶霞女, (1977-), 博士, 副教授.研究方向为数据库技术、计算机网络.

李俊山男, (1956-), 博士, 教授.研究方向为数据库技术、网络信息安全.