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Title of the paper: Integrating XML with Heterogeneous Relational Databases using GUI-based XML Middleware Approach

Name of the Authors: Lee Ching Kum and Sai Peck Lee

Abstract: Over the past few years, XML has become the undisputable *lingua franca* standard both for semi-structured data representation and exchange format over the Internet, and also content management in various e-business worlds, especially the B2B and B2C enterprise applications. However, most of these organisations still rely heavily on existing relational database management systems (RDBMS) to store and manage their structured data for daily critical business transactions. In fact, major database vendors, which also happen to be the giant software companies like Microsoft, IBM and Oracle, have ventured and taken great initiatives in researching and providing for a single solution to integrate these semi-structured XML data with structured data in relational databases. Most importantly, it is estimated that during the next few years to come, more than 75% of e-business applications will implement XML technologies in their applications.

Consequently, as more software applications are rapidly beginning to implement XML, there should be a growing need for XML middleware to efficiently integrating XML data at the front-end with a RDBMS at the back-end. Hence, this research is aimed at providing a generic XML-based framework, which is known as JXDB, that allows a user to use XML for dealing with semi-structured data for creating, accessing or updating to existing heterogeneous relational databases that store structured data and vice versa. JXDB is designed to provide a generic and extensive XML middleware framework for integration between XML documents and heterogeneous relational databases.