Abstract

XML is becoming a prevalent format and de-facto standard for data exchange in many applications. While traditionally, lots of data are stored and managed in relational databases. There is an urgent need to research some efficient methods to convert these data stored in relational databases to XML format when integrating and exchanging these data in XML format.

The semantics of XML schemas are crucial to design, query, and store XML documents and functional dependencies are very important representations of semantic information of XML schemas. As DTDs are one of the most frequently used schemas for XML documents in these
days, we will use DTDs as schemas of XML documents here.

This paper studies the problem of schema conversion from relational schemas to XML DTDs. As functional dependencies play an important role in the schema conversion process, the concept of functional dependency for XML DTDs is used to preserve the semantics implied by functional dependencies and keys of relational schemas. A conversion method is proposed to convert relational schemas to XML DTDs in the presence of functional dependencies, keys and foreign keys. The methods presented here can preserve the semantics implied by functional dependencies, keys and foreign keys of relational schemas and can convert multiple relational tables to XML DTDs at the same time.

Reference

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Index Terms

Computer Science
Databases
**Key words**

| Inference Document | Xml Document | XML DTDs |