Abstract

Schema mappings and data mappings constitute essential building blocks of data integration, data exchange and peer-to-peer data sharing systems. At present, either schema-level mappings or data-level mappings are used for data sharing purposes. In this paper we consider the semantics of bi-level mapping that combines the schema-level and data-level mappings. Tabular representation of the mappings helps to solve many mapping-related algorithmic and semantic problems, like mapping composition. Composition of mappings between sources has several computational advantages in a peer data sharing system, such as yielding more efficient query translation and pruning redundant paths. Considering the need of mapping composition, this paper presents a mechanism for composing two bi-level mappings by using tableaux.

References

- Fagin, R., Kolaitis, P. G., Miller R. J.: Data Exchange: Semantics and Query

Index Terms

Computer Science
Distributed System
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Mappings  data Interoperability  mapping composition