Abstract

The lack of semantic richness is one of the biggest drawbacks of the data stored in the classic relational databases (RDB). This paper provides a method that gives a meaning to these data to serve the semantic web. This method allows a direct and automatic conversion of RDB to ontology, it operates on two levels: The first one is based on the principle of reverse engineering; its purpose is to extract the RDB schema and convert it directly to an ontology model (TBOX). The second level aims to populate the ontology by individuals (ABOX) using data of different records of the RDB and basing on the model of the ontology. Our approach takes into account the relationships established via foreign keys between tables, and the semantic of integrity constraints during the conversion, which allows keeping the consistency and integrity of data.
Direct Migration Method of RDB to Ontology while Keeping Semantics


- Csongor Nyulas, Martin O’Connor and Samson Tu: DataMaster – a Plug-in for Importing Schemas and Data from Relational Databases into Protégé. In: 10th international Protégé conference. 2007.


Index Terms

Computer Science

Databases

Keywords

RDB  Ontology  Mapping  Semantic web