Abstract

Ontology is being increasingly used for building the applications for the specific domain. Ontology enables users to capture the semantic of the documents. System performance is improved drastically by domain specific information extraction. To interpret information and perform reasoning, we need to store Ontologies in a way that is correct, consistent, scalable and efficient to retrieve. From the years, relational database technology has ensured the best facilities for updating, storing and manipulating the information of problem domain. RDBMS (Relational Database Management Systems) is the most efficient and reliable Data Structure in terms of storage and retrieval. One of the ways is to store Ontologies in RDBMS. To store OWL documents in RDBMS multiple techniques have been proposed, but they either deal with single ontology or they do not store complete semantics expressed in OWL ontologies. Some of the techniques are not really scalable, as the ontology is dynamic and extensible where as the RDBMS schema is not dynamically extensible. So, we need to store the OWL document in such a way that all the data should be stored and system is able to utilize the advantages of relational database. System defined tables are provided to store OWL ontology. Our approach enables users to reference the ontology data directly from SQL using semantic match operators. This paper focuses on semantic search based on ontology and RDBMS for cricket.

References
- "Introducing PelletDb (Expressive, Scalable Semantic Reasoning for the Enterprise)"; 2009, Oracle white papers.

- Natalya F. Noy and Deborah L. McGuinness, Stanford University, Stanford, "Ontology Development 101: A Guide to Creating Your First Ontology";
- Michael Grobe, "RDF, Jena, SparQL and the Semantic Web", SIGUCCS'09, October 11–14, 2009, St. Louis, Missouri, USA.
- RDF, http://www.w3.org/TR/rdf-primer/
- OWL, http://www.w3.org/TR/owl-features/

**Index Terms**

Computer Science  
Information Sciences

**Keywords**

Ontology  RDF  OWL  Sparql  Rdbms  Inference  Semantic Search  Semantic Indexing  Semantic Web