Relational database management systems are mostly used for effective representation and retrieval of data. For the user, it is hard to learn the database interface language to deal with various operations on databases. Hence there is a need to construct a bridge between natural language query and database understandable query which is a major challenge. In this paper, we have proposed a Natural Language Parser for Natural Language Interface to customer database. The parser converts the Natural Language query into First order Logic and then the First order logic query is converted into structured query. This paper also addresses the word sense disambiguation problem using ontologies and n-grams. The lexical meaning of the natural language query can be captured with n contiguous characters or words of the query. The proposed system is able to handle extraction, insertion, deletion and updation queries. It is also able to process join, conditional, single and multiple column retrieval queries. The performance of the system is measured using precision, recall and F-measure. The results are progressive.
References


Index Terms

Computer Science

Artificial Intelligence

Keywords

Natural Language Query, First Order Logic, Structured Query, Precision, Recall, F1-measure
Natural Language Query Parser using First Order Logic for Querying Relational Databases