Review Paper on Hindi GUI to RDBMS for Transport System using NLP

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Abstract— Data has been stored in the database and the databases are the major sources of information. Information is playing an important role in day-to-day life. This information technology has the main impact on the growing use of pc and net. Database management system has been used for accessing, storing and retrieving data. However, information system isn't intelligible to every and each user as a result of they are laborious to use and perceive. People with no information of information language could realize it troublesome to access information. Therefore, there is need to find out the new technique and methods to access the database with the use of Natural Language Processing. Therefore this idea of mistreatment language rather than SQL triggered the event of a unique sort of process technique known as language Interface to information (NLIDB). Where user don't have needing to be told the formal language, they can give query in their native language .for the people who are comfortable with the Hindi language want this application to just accept Hindi sentence as a question, process it and after execution provide result to the user in the same language which is nothing but the Hindi Language Interface to Database Management System.

Keywords: Hindi GUI, NLIDB, RDBMS, NLP

I. INTRODUCTION

Database Management System could be a assortment of reticulate information and set of programs to access those information. Database systems area unit designed to manage massive bodies of knowledge. A information is created of 3 kinds of elements: relations, attributes and values. Each part is distinct associated unique: an attribute part could be a explicit column during a explicit relation and every worth part is that the worth of a selected attribute. A value is compatible with its attribute and additionally with the relation containing this attribute. An attribute is compatible with its relation. To access the information from database, we should have the knowledge of Structured Query Language (SQL). Internet is the largest data provider in todays date and it caters to users of all kinds.

The largeness {of information of knowledge of information} makes it obligatory that data is saved in associate organized manner so it's simple to look, retrieve and maintain. For this purpose the foremost logical and ordinarily used storage technique is by the utilization of databases. But to with efficiency use or maintain any information the information of languages like SQL becomes essential. This would limit the use of data to only those users who have the knowledge of these languages. Hence, a simple to use interface comes into image which might facilitate various users to access information. There is a need to design and develop an interface in the local language so that user can easily use that system without any knowledge of English as well as query language.

The need of user to retrieve the database in local language is fulfilled by using Natural language Interface to Database. With the help of this interface, the end user can query the system in natural language like English, Hindi, Telgu, Panjabi etc., and can see the result in same language. NLIDB system is planned as an answer to the matter for accessing info during a straightforward approach, allowing ideally any type of users, mainly inexperienced ones; to retrieve information from a database (DB) using natural language (NL).

II. LITERATURE REVIEW

There is immense development within the space of NLIDB. Researchers are working on it from many years. Researchers like Androutsopoulos, G.D. Ritchie and P. Tanisch gives various architectures for NLIDB which is given below. Architectures within the type of pattern matching systems, syntax based system, semantic grammar systems are developed by the researchers n that are explain below.

A. Pattern Matching System:

In pattern matching system patters n rules are given and that patterns and rules are fixed. The rules are, if input sentence or word is match with given pattern, the action has been taken and that actions are also mention in the database. But it is for some limited database and to the number of complexities of its pattern [1]. The advantage of this system is no parsing and module needed and system can be easily implemented. Some systems are working effectively but some would lead to be failed. SANVY is the best example of the pattern matching system [1].

B. Syntax based Systems:

In syntax primarily based system user queries area unit analyzed syntactically i.e. it is parsed and the resulting syntactic tree is mapped to an expression in some database query language. One of the samples of syntax primarily based system is satellite. In this system grammar is nothing but the possible syntactic structure of the users question. The advantage of this system is that it will give the detail information about the structure of the sentences.

C. Semantic Grammar System:

It is similar to the syntax based system. The query result is obtained by mapping the parse tree of sentences to a database query. The basic logic behind the linguistics synchronic linguistics system is dissect the tree by removing uncalled-for or combining the nodes along. Semantic grammar is used in PLANES and LADDER.

III. PARAPHRASING TOOL

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IV. PROPOSED SYSTEM

The proposed system is the HLIDB system. It maps the Hindi language query to SQL query. So as to store and access the

knowledge in Hindi, a graphical programme has been used. With the assistance of this interface, the end user can query the system in Hindi, and can see the result in same language. This gives the idea of Hindi Language Interface to Database (HLIDB). HLIDB system is proposed as a solution to the problem for accessing information in a simple way, allowing ideally any type of users who knows the Hindi language, mainly inexperienced ones; to retrieve data from an information (DB). It is a type of computer human interface. This System Consists of Two Databases.

First is that the Compiler information and second is that the Transport information. The column names of the Transport database will be stored in English language but the data in that columns will be stored in Hindi language. The user will enter the query in Hindi, this query will be processed and translated into its corresponding English query by using compiler database and depending upon that query result is calculated and provided to user. The result provided to user is also in Hindi language.

V. CONCLUSION

The system accepts the query in Hindi language, tokenize the sentence and maps the Hindi words with their corresponding English words with the help of compiler database maintained. After mapping the sentence, it is checked whether it is data retrieval, update, insert or delete type of sentence. This is done by analyzing the input Hindi sentence. After analyzing the Hindi sentence, table names, column names and conditions are searched in transport database table. After mapping, SQL query is generated and executed on database to display the result set to the user. It is very much useful for non-technical person to retrieve data from database and get knowledge from it.

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