Question

Execute family code presented in the Chapter5 (Part 2), pp. 94-96 or one of other problem codes of natural language processing described in [1], [2]. Replace/change/update the input data and code with own original ones. Execute the code in Prolog or any other logic programming language. Describe the problem statement, input data, used methods , code and results obta ined. Upload the file consisting of the code and related report to the UNT Canvas environment.

Description of method and code

The method and code descriptions and related simulation results are presented in the Chapter 5 (Part 2) of CSCE 5200 course and in [1] – [3]. Free SWI Prolog software, related link and book [1] can be downloaded from the UNT Canvas environment.

Report =>

Background:

The prolog family tree, defined as the prolog, is a logical programming language with symbolic and non-numeric data processing. It is especially well suited for solving problems that require objects and relationships between the objects.

These relationships can be expressed as facts and rules.

There are various kinds of relationships, of which some can be rules as well. A rule can find out about a relationship even if the relationship is not defined explicitly as a fact.

Problem Statement:

Constructing a family tree using prolog or any language.

Input Data:

Names of the family members having relation.

Method:

By converting facts and regulations into a family tree, we can then perform certain queries on the data.

By listing the n-tuples of objects based on the information provided in the family tree, we have defined the parent relation.

The user can easily ask the Prolog system questions regarding the program's defined relations.

A Prolog program is made up of clauses that are finished with full stops.

Among other things, the arguments of relations can be: specific objects, constants (like pat and jim), or basic objects like X and Y. In our program, the first kind of objects are referred to as atoms. Variables are the name for the second type of objects.

One or more goals are contained in questions to the system.

Result:

Presented the query, the program will identify the relation based on the query and displays name of the family member. If it doesn't exist then it returns false.

Code:

As present in .pl file attached.

Note:

The program has been executed in the SWI Prolog Online Editor using Prolog language. Separate files are attached. For simple view screenshot can be opened to view the output and code.

In [ ]: