Artificial Intelligence

Term Project

Spring 2020

Submit before June 15, 2020

Expert Systems

Expert systems are intelligent systems that include a knowledge base, an inference mechanism, and a user interface that receives user queries and displays the result of inference. Expert systems learn only through adding expert knowledge. Therefore, their knowledge base includes declarative knowledge. More details about expert systems can be found at the Expert Systems document on the course webpage.

In this project, you are required to develop a simple expert system. The steps to be followed are:

1- Select a topic to develop an expert system about. For instance, a movie recommendation system which recommends movies based on the user's age and education, genre, etc.
2- Decide about the rules that you want to include in your knowledge base. For example if age is less than 10 recommend cartoons.
3- Develop your knowledge base by converting your selected rules into predicate logic format.
4- Show how your expert system works by applying some examples. For each example explain which inference rules are used to reach a conclusion.

Your final report should include an introduction to expert systems explaining how they work; explain your own application; describe you knowledge base and the rules you created; give the examples you used to illustrate how your expert system works.

Also include a conclusion about the advantages and disadvantages of expert systems and how they can be improved (use your own system to clarify your explanations)