CPSC 312 Project 1 -- Individual Questions

Name	**Student ID**	**UGrad ID**
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1. What impressed you most about Prolog in the course of this project? Least?

I was impressed that Prolog could be used like a more conventional programming language to create an expert system, complete with a shell. I thought the natural language processing of Prolog was very impressive. I was not impressed with the readability of the code. For a language that purports to let the programmer reason about the problem and not worry about the underlying computation it didn't really live up to its billing. For one thing the code was often very difficult to reason about. And for another you actually did have to pay close attention to the unification algorithm. I'm told that different implementations of Prolog have different unification algorithms, to make matters even worse.

2. What was the most frustrating thing about the toolkits and other code you used (WordNet, ProNTo_Morph, and 312PESS), and (roughly) what would the authors have to do to fix the problem?

Part of the difficulty was the sheer volume of information that we had to digest in a short amount of time. Trying to understand what was going on in the starter files was difficult because, despite copious comments, trying to follow what the code did was hard because each predicate called other novel predicates and without knowing what those predicates did it was almost impossible to know what the initial predicates did. So, in some cases I found myself jumping around the code multiple times just to understand a single predicate. Furthermore, because I didn't write the code I didn't know what problem was being solved by various helper functions and why the code had been written the way it had as opposed to some other way.

3. What application (besides this one and adventure games) could you apply your natural language understanding code to?

I can certainly see this being applied to a diagnostic expert system in medicine, or tech support, or any field where an expert might have to ask a series of questions and especially where the solutions (diseases, conditions, problems, etc.) might not be the obvious ones that jump to mind. From readings I've done in other courses I've learned that for the most part this sort of NLP has been superseded by statistical machine learning, so I'm not sure it would necessarily be the best choice for general NLP applications.

4. What could we have done better on this project?

I always find code examples more useful than comments. When tests, or test suites, are present I always go to them first. Without examples, I often find it difficult to understand what the code is supposed to do, even with adequate comments.

5. About how many hours did you spend on the project?

I spent somewhere over ten hours working in person or online with my team members. I spent an additional ten to fifteen hours reading the code, background materials and searching online. I spent at least five hours working on the knowledge base alone. I spent a few more hours playing around with the code in the starter files and writing new code. All in all I probably spent around thirty hours on the project.

Peer Evaluation

Each team member must individually and privately rate their teammates' contributions to the project and their own, on a scale of 0 to 5.

Name	**Rating**
Brian Taylor	4
Byron Duenas	5
Tongli Li	5

I gave myself a 4 only because my team members were so good. I think I probably spent more hours on the project (especially reading background materials and working on the knowledge base), but I would not have been able to complete the project as quickly were they not as good as they were.