Programming Assignment #4 Report - Jacob Walton

This assignment was definitely the most challenging one we have done so far. My first plan was to have each intent have "indicator words", being unique key words or phrases that would identify which intent was being called. I had trouble at first getting the code to search for specific words while also including potential punctuation. Luckily, I was able to find code online that made it possible (with proper edits and credit to its source). After getting this to work for switching between the two companies, I then began to work on using this method for the UserSelections portion. About half way through I decided to shift gears and attempted to write my code in the way the professor had suggested, but I soon ran into many difficulties. Whether that be that some sections had a higher chance of being called due to the length of the intent being shorter (thus needing less words to have a high accuracy), but also had trouble with the code counting parts of one words as another (whenever I used the word "is", it thought I was saying "risk", the reason I did not just search for the word "risk" is because then it would not count the user inputting "risk?"). After hours of attempts, I decided that I would return with my original design. Ultimately, I am glad that it was not required to do the suggested method as I am quite proud of how the code turned out. It's less flexible, but I understand it fully and it is clear to other people how it functions. As mentioned, it is unfortunately not as flexible with other programs and would require a fair amount of effort to port it to another program, but I still think it works pretty well.

(Here's also a really simplified UML Diagram, it's not very different from last weeks) —>