Psychological Chatbot Documentation – Individual (Dima Zhuravel)

Link: https://github.com/d3li0n/psychological-chatbot

In this assignment, the chatbot gained two new features to expand its core functionality further. Most importantly, these features have a relevant use to the program. This document aims to give a bit more explanation about the features and how relevant they are to the program.

1. **Wikipedia API** - the library aims to help the user answer questions that can occur during the conversation. In one of the dialogue examples, the chatbot emphasizes the importance of having a social group. Users might wonder why it is important to have a social group. Definitely, they can search for the answer using Google, but why would it not be easier to search within the program? Since Wikipedia has many articles relative to the topic covered in the program, it would help the user find relative information quicker. How does it work?
    - The new feature is incorporated into the main program by determining what response from the list it should give to the user. The programmatic "update" is simple; by adding additional conditions and part of speech analysis(e.g., using word "what"), the chatbot, with decent accuracy, can determine that the user is specifically looking for the word definition.
    - After the response from the user is filtered, the custom-made service class calls the Wikipedia library to find the relative answer on its website. If the article exists, it will take the summary of it, shorten it, and return it to the user with the article's link if further information is needed.
2. **Google Places API** – the library aims to help the user find relative to the chatbot's topic places, such as medical centers. Why is it relevant? Our program tries its best to support users with mental health problems, but it is very complicated to achieve that. Therefore, I incorporated this library to help the user find relevant places in the Kelowna area faster

than looking on the browser. Using powerful technologies of Google API, it will find the most suitable places for users' queries. How does it work?

- Like the Wikipedia API feature, this new feature is incorporated into the main program by evaluating users' responses through the POS analysis. The program will look for the keyword "where" in the sentence as the goal is to find a particular place.
- Once the response is filtered from unnecessary words, the custom-made service class calls the Google API library, which sends a request to the Google Places server, where Google's engine finds relative places in the area; then, it returns the response as a JSON object. After, the program filters the data and selects the relevant information - the name of the places and address. Finally, the response is displayed to the user.