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Project Assignment #4: User Intent Program

The goal of this project assignment was to create a program that can guess the intent of the user. In this case, my program will chit-chat with the user and be able to answer general questions, while also answering disease-related questions using the CDC website "https://wwwnc.cdc.gov/travel/diseases/rabies" and the WebMD website "https://www.webmd.com/a-to-z-guides/what-is-rabies". The program should also be able to figure out what the user is trying to ask. After figuring out the user's intent, the program will either print the answer or tell the user that it has no information for that question. If the program answers a disease-related question, then the program will also print the website the answer came from. Overall, the program should guess the user's intent, print out the answers to questions, and chit-chat with the user.

There are four classes used in this program. To figure out the intent of the user, this program uses a class named *Regex*. This class uses regular expressions to search through the user's questions and responses to find the right answer for the user. When the program chooses a question to answer, the program then uses three other classes to extract the answer from the two extracted files *rabies-cdc-extracted.txt* and *rabies-webmd-extracted.txt*. These three classes consist of a parent class named *DiseaseUi* and child classes, *CDCUi* and *WebMDUi*. The parent class has question indexes I1, I12, and I6. I1 and I12 are indexes that need answers from both extracted files, and I6 can't be answered by the given sources for Rabies. The child classes have variables that must extract answers from either the WebMD source or CDC source.

In conclusion, the program can guess the user's intent and try to give the user an answer. I used regular expressions to compare the similarities between known questions and the user's questions. Then, I chose the question that had the most similarities. I also incorporated key words to make sure that the program is giving answers that make sense. I was able to fix most of the problems I was having in project 3 and extract the data from the website files. Now, the program prints out the answers. The program can handle a few general questions, like "hi", "how are you" and "goodbye". If the user says "goodbye" or something like "I want to leave", then the program

tells the user to type “quit” to end the program. Moving forward, I want to incorporate more into how the program figures out the user’s intent. I want to include percentages that way the guess is more accurate, but I am happy the program can make guesses and give answers in response. It is a good start that I can grow from.

Works Cited

Editorial Contributors, WebMD. “Rabies: 9 Symptoms & What Do If You Are Bitten by a Rabid Animal.” *WebMD*, WebMD, 10 June 2022, https://www.webmd.com/a-to-z-guides/what-is-rabies.

“Rabies.” *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 5 May 2022, https://wwwnc.cdc.gov/travel/diseases/rabies.