OBabl Chat Bot

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Project Goals: To implement a standalone chat bot that can be trained with loaded conversation data to generate a Markov chain. The bot, in addition to training itself, can also save unique 'conversational' models so that multiple distinct 'personalities' can be created. The user will be able to converse and interact with the bot.

Stretch Goal: To implement a chat room of bots where bots will talk to each other in addition to the user.

Project Components:

1. Training Parser: Reads input data, tokenizes the strings, and represents them symbolically for training. (Will use recursive functions for string parsing and pattern matching)
2. Trainer: Reads parsed strings and develops markov chain model from word probabilities. (Will use recursive functions and imperative programming to update a dictionary representing the markov chain graph)
3. Conversationalist: Parses user conversation and walks through the markov model to generate a relevant response to the user prompt. (Will use walk methodology to navigate the advanced markov data structure)
4. Chatroom (stretch): Load multiple markov personality models into a room and orchestrate them to interact. (Will use object oriented programming)

Work Distribution: Work will be divided evenly. We will seek to meet in person to work on the project together, distributing individual work only as needed.