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15-112; Section F

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<div align="center">Read Me</div>

The Project

Rap Battle Bot is a program that generates rap verses using a speech prediction algorithm composed of Markov chains. The program processes a speech input from the user, and uses those words as well as a compilation of existing rap songs, to generate a response.

Dependencies and Requirements

The program is written in Python and uses several Python packages and modules. These include:

- "Tkinter" for the user interface

   - to install: http://tkinter.unpythonic.net/wiki/How_to_install_Tkinter

- "Pyaudio", "wave", and "struct" for processing audio wave files

   - to install: https://people.csail.mit.edu/hubert/pyaudio/

- "speech_recognition" for converting speech to text

   - to install: https://pypi.python.org/pypi/SpeechRecognition/

- "pronouncing" for a rhyme dictionary database

- to install: https://pypi.python.org/pypi/pronouncing

- built in packages "string", "random", and "os" or file processing and random/string operations

It also requires an input text, which can be any compilation of texts. Included in the "lyrics" folder is is a compilation of existing songs, which are processed in the program.