CSC340.03
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Assignment: 03
Due 10-13-2020 at 11:55 PM
<center>Program Analysis to Program Design</center>

Question : What is your analysis of the provided information and the provided complete sample output?

Answer:

Just like last assignment, the client wants a working, interactive dictionary that they can add words to easily. They want to be able to add as many words as they can into a text file and have a computer run the program that will allow them to access their information in an easy to read format. This program should be able to have the user type in a word, a part of speech, and a few keywords and output their words and their mistakes in an easy to read way.

Question: What problem are you solving? Please explain it clearly then define it concisely.

Answer:

To complete this assignment to the client's needs, we need to be able to take a text file, scan its data, then shape it into moldable objects that we can use. Then we need to put them into a data structure that can store them and access them whenever the user wants them. Since the user is mostly likely not a software engineer, we must also make the user interface as simple as possible so that they can understand the outputs immediately. So we need to make a user-friendly interface that will perform input validation, create a data structure to hold our word objects, and scrub all of the words and their data from a text file.

Question: How did you store the data and why did you store it that way?

Answer:

      After scrubbing the data from the text file, I created a database that I called a mapVector. This is an ordered map that takes a string as the key value and a vector of Entry objects (the word objects). I stored the data this way because I wanted to implement a data structure that was similar to a HashTable in Java. Both of these structures can find the names of the words extremely easily and can hold larger data structures to hold the majority of the data.

Question: Which data structures did you use/create for your dictionary and why?

Answer:

      As I said in the last question, I placed the words into Entry objects, and placed those into a data structure I call a mapVector. As I stated before, this data structure made the most sense to me because they can store a large amount of data, but can access the information relatively easily and quickly.