

## CSCE 240 Project 4

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For this project, we were instructed to build upon our previous project to allow the program to take in mistaken or misspelled words and output the suggested words. There were multiple errors, solutions and things I have learned about programming during this project that I intend to speak about. Just to give a brief overview of my program, I would intake words as normal in the free form section and before doing my previous check for what category the words would fit in, I would compare the words to the desired words to check to see if they matched up. To do this, I had to create a new Category class that would create a library of words and use those for category comparison. Following this, I would send the word received from the user and all the words in the library to a counter class that would check to see if the values matched 80% from the starting letter. If it did, it would return the word the computer guessed you meant to say and if it didn't, it would return the old word.

During this project, I ran into many mistakes that would help me learn. One mistake I ran into was the process of figuring out which word to compare the string to. I learned the best way to deal with this was to compare the value to all of the words and then from there, I would be able to depict which word matched. Since none of the words were identical to the point that it would have been at least an 80% match, there was no way it would have produced two results, so this worked well. A second problem I ran into was how to compare the two strings. I learned that if I make the letter of the string represent a char then I can compare the two char instead of trying to compare the string themselves. This also made it easier for moving through the word.

All in all, I would say I learn quite a bit during this program. The main thing I learned was that there are ways to turn a string into a char within an array and compare the values within the array, making it easier to go over the string and do what I needed to do with it. Now with this

idea, I know I would be able to take the values in the string and make them other values or make a synonym class.

#### Extra credit

My classmate, Ayden Owens, used my Counter Class to help him with the percentage counting and string comparison. I used Ayden Owen's regex pattern to be able to divide the text file easier as well.