

CPSC 230: Computer Science I
Fall 2018
In Class Assignment: The Joy of Strings
Due: In 60 minutes

Overview

Do you know what an *alternade* is? Of course you don't, no one does! According to Wikipedia, an alternade:

“is a **word** in which its **letters**, taken alternatively in a strict sequence, and used in the same order as the original word, make up at least two other words. All letters must be used, but the smaller words are not necessarily of the same length. For example, a word with seven letters where every second letter is used will produce a four-letter word and a three-letter word.”

In most cases, the alternade is formed by looking at letters that are two spaces apart, with the first word starting as position 0, and the second from position 1. For example, the word “pained” is an alternade, because using the rules above we produce 2 words: “pie” and “and”

Your job is to write a Python program that asks the user to make one of two choices...destruct or construct.

If the user chooses destruct, prompt them for an alternade, and then output the 2 words from that alternade.

If the user chooses construct, prompt them for 2 words, and then output the alternade that would have produced those words.

You must enforce that the users enter real words...or at least not blatant non-words. So if there input contains numbers, whitespace, punctuation, etc., you should prompt them for input until correct input is provided.

If you manage to get all that done, then implement the following: the words output by your program must be in alternating case, starting with uppercase. So, for example, if you wanted to output the word “happy”, it should be displayed as “HaPpY.”

You may work with a partner, i.e. – one other person.

Due Date

This assignment is due in 60 minutes on 10-16-2015. Submit via Blackboard. It should be labeled firstinitiallastname_ICA2. Please make sure to include all the required files (README, source files). If you do not finish, please note in the README what you struggled with and what you could not figure out. Also, make sure to note who you worked with.

Grading

Your program will be evaluated for correctness and elegance. In particular, you should make sure your code is properly commented and obeys standard naming conventions.