AC50002- programming assessment – Python

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The first lines are used to import the necessary libraries and define global variables to be used throughout the functions.

Functions

1. Readfile:

Function is used to read the file that is given and used common string functions and regex functions to remove characters,replace apostrophe,and capitalize the letters

It returns a list of all strings.

1. Outfile:

The function is used to calculate the output and write that to the output file. The function takes in a nested dictionary as input and calculates the min value of abbreviations for each string and appends them to the outputfile.

1. Score:

The function is used to calculate the score of abbreviations. It takes two strings one abbreviation and the other is the entire string. It retuns the score of the abbreviation. It uses simple if statements and lists to identify the positions of the letters and calculate the score according to the given conditions.

1. Abbfunc:

The function is used to create abbreviations from strings. It takes in a string as input and returns a nested dictionary with the strings and their abbreviations and scores. The functions uses combinations from itertools to create all possible combinations. The function also delete abbreviations if they are present in more than one string.

1. Main:

The core piece of the program where all the action takes places. This function is used to initialize and call other functions defined before.

Background pattern

Description automatically generated with medium confidence

The above figure demonstrates the example problem given in the assignment and shows the code working properly.