

All variables are laid out like this:

Variable – Description
Validation

If you would like proof of the validation, please refer to the python code its self as the validation is clearly labelled through commentary.

Any variables that don't have any information by it is because it has already been mentioned previously and has the same purpose and validation precautions.

Variables list TASK 1

sentence – inputted sentence from user

Checks that there is a letter from the alphabet in the sentence making sure there isn't just a number or space, also checks for any punctuation in the sentence preventing the program from crashing or producing logical errors. The sentence is instantly turned into lower case to prevent case sensitivity.

sentencelist – sentence split into list
no validation required

search – word inputted from user to look for in sentence list
Checks that a letter from the alphabet is in the word making sure there isn't just a number or space, also checks for any punctuation in the word preventing the program from crashing or producing logical errors. The word is instantly turned into lower case to prevent case sensitivity.

position – index of word list
no validation required

plural – alters output depending on amount of times word is in sentence
no validation required.

Variables list TASK 2

sentence

sentencelist

words – blank array used for indexes of words in sentence list
no validation required

index – used in for loop
no validation required

Variable list TASK 3

sentencelist

attempt – while loop used for a function
no validation required

filename – user inputs what they want the file to be named
Instantly turned into lower case to make if statements easier and preventing variable case sensitivity. Checks to see if the user typed “cancel”, if so it returns them to the menu function. Finally checks that a letter from the alphabet was entered making sure there isn’t just a space or number preventing the program from crashing due to a value error.

words

sentencestring – assists the joining of words in the sentence list
no validation required

sentencename –user inputs what they wish the sentence to be called
Checks that a letter from the alphabet was entered making sure there isn’t just a space or number preventing the program from crashing due to a value error.

sentence

index

optionloop – another while loop for invalid inputs by user
no validation required

choice – used for main menu selection of different functions
Input turned to lower case to make if statements easier and less chunky then checks to see if input matches any of the choices given, if not user is told to enter a valid choice and looped back to the input.

Function list TASK 3

readfile() – defines how to read file

compressfile() – defines how to compress a file

menu() – the main menu where you can navigate from function to function