

Assignment 9

Submit an attempt at each question.

The solution to each question should use the `fgets` function to read an entire line of input from the console. This is the input string that must be processed by the program. (see assignment 8 for a code segment showing how to use `fgets`)

1. Write a program to count how many words occur in a string inputted by a user, where a word is a sequence of characters that are not separated by spaces.

If the user types:

The dog, the cat and the mouse.

the program should output

The message contains 7 words.

Note that there is a string library function `strtok` that would help in solving this problem – however do it without using that function.

2. Write a program to count how many times the word “dogs” occurs in a string, where the case of the characters in the word is ignored.

If the user types:

Black dogs white dogs and red dogs – Dogs come in many colours.

then the program should output

There are 4 occurrences of the word dogs.

One approach to this program is to re-use code from Question 1 to identify the next word in the sentence. Then compare that word with the word “dogs”. You may use string library functions, e.g. `strcmp` to do the comparison, but make sure you deal with the case of the characters first. A good program would also deal with additional punctuation around the word “dogs” e.g. if the input is:

Black dogs, white dogs and red dogs. Dogs come in many colours.

then it should still find 4 occurrences of the word “dogs”.