Assignment 0: Getting aquainted with assembly language and the linking process.

Submissions which deviate from the instructions will not be graded!

Please make your output exactly as in the examples below.
Otherwise automatic scripts would fail on your assignment and you will lose your points for this.

Assignment Description

We provide you with a simple program written in C that reads an input line from a user into a null-terminated string.
Then, this program calls a function written in assembly language (which you need to implement) that receives a (pointer to) a null terminated character string as an argument. Your code should operate on the string as follows:

- Convert 'a' into 'A'
- Convert 'B' into 'b'
- Count (and return) the number of whitespace characters: ' ', '\t', and '\n' characters

Assume that maximal string size is 100, including newline and Null termination characters.

Note: the rest of the characters in the input string should remain as they were.
Note: we use the C standard library function fgets( ) to get the user input string. This function reads and passes on the '\n' character at the end of the line. We should treat this character as a part of the string. So, the empty input line is indeed of length 1 since it contains the '\n' character.

The function returns the counter.
The characters conversion should be **in-place**, which means we should change the string to get the result string.

Example:

> Assignment0.out
42: aB cDefg!
42: Ab cDefg!
3