

Assignment no 1

Note: The assignment is to be submitted in a group of 3 before 29th July 2022 in my office.

A function receives a null terminated character array. This array contains a sentence, which is a sequence of words separated by spaces. However, some words are separated by more than one space. Your function should make the string "compact" by removing all extra spaces and leaving only one space behind. At the end of the function the compacted string should still be a proper null terminated string. The function should return the number of spaces it removed. This has to be done in place, so you cannot use any extra array. Don't use any built-in functions. Also, string handling functions such as character insertion, deletion, string length etc. are NOT AVAILABLE. There is no need to write the main program.

Sample example:

If the original string is:

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|--|--|---|---|--|--|--|--|---|---|--|--|--|--|---|---|---|---|---|------|
| E | x | a | m | | | i | s | | | | | s | o | | | | | e | a | s | y | ! | '\0' |
|---|---|---|---|--|--|---|---|--|--|--|--|---|---|--|--|--|--|---|---|---|---|---|------|

Then the same string should change to

| | | | | | | | | | | | | | | | | |
|---|---|---|---|--|---|---|--|---|---|--|---|---|---|---|---|------|
| E | x | a | m | | i | s | | s | o | | e | a | s | y | ! | '\0' |
|---|---|---|---|--|---|---|--|---|---|--|---|---|---|---|---|------|

and the function should return 10.