

Practice Exercise #35: Count String in a Text

http://www.comp.nus.edu.sg/~cs1010/4_misc/practice.html

Reference: Week 9

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Objective: Using strstr()

Task statement:

Write a program **count_string.c** to read in a search string, and whether the search is to be carried out in case-sensitive mode. The program then reads in several lines of text, terminated by a blank line, and counts the number of times the search string appears in these lines of text.

You may assume that the search string contains at most 15 characters, and each line of text contains at most 80 characters.

Your program should contain a function with the following header:

```
int count(char line[], char str[], char sensitivity)
```

where **line** is one line of text and **str** is the search string. The function counts the number of times **str** appears in **line**. The parameter **sensitivity** contains either 'y' or 'n' to represent case-sensitive or non-case-sensitive mode of search respectively.

You may write additional function(s) if necessary.

You are to use the string function **strstr()**, and other character functions or string functions if necessary.

Sample runs:

```
Enter search string with <= 15 characters: apple
search string: "apple"
Search with case-sensitive ('y' or 'n')? n
Case-sensitivity is off.
Enter lines of text, each with <= 80 characters,
and end with an empty line.
There is an apple in the pineapple!
Line entered: "There is an apple in the pineapple!"
She is an apple in my eye.
Line entered: "She is an apple in my eye."

Line entered: ""
Number of times "apple" appears: 3
```

Enter search string with <= 15 characters: **th**
search string: "th"
Search with case-sensitive ('y' or 'n')? **n**
Case-sensitivity is off.
Enter lines of text, each with <= 80 characters,
and end with an empty line.
Those thieves thought that Thor, the God
Line entered: "Those thieves thought that Thor, the God"
of Thunder, is a thoroughly thoughtless
Line entered: "of Thunder, is a thoroughly thoughtless"
thug, through and through, although
Line entered: "thug, through and through, although"
Thor is thankfully not.
Line entered: "Thor is thankfully not."

Line entered: ""
Number of times "th" appears: 15

Enter search string with <= 15 characters: **th**
search string: "th"
Search with case-sensitive ('y' or 'n')? **y**
Case-sensitivity is on.
Enter lines of text, each with <= 80 characters,
and end with an empty line.
Those thieves thought that Thor, the God
Line entered: "Those thieves thought that Thor, the God"
of Thunder, is a thoroughly thoughtless
Line entered: "of Thunder, is a thoroughly thoughtless"
thug, through and through, although
Line entered: "thug, through and through, although"
Thor is thankfully not.
Line entered: "Thor is thankfully not."

Line entered: ""
Number of times "th" appears: 11
