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| **LAB101 Assignment** | **Type:** | **Short Assignment** |
| **Code:** | **C.S.P0036** |
| **LOC:** | **27** |
| **Slot(s):** | **1** |

**Title**

Count the number of the appearance of letters in a string.

**Background**

N/A

**Program Specifications**

Implement a program to prompt users to input a string.

Count the number of the appearances of letters in the string.

***Function details:***

1. Function 1: Display a screen to prompt users to input a string.

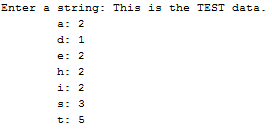
* Users input a string, the perform Function 2.

1. Function 2: The program counts the number of appearances of letters.

* Based on the ASCII table, create an array with 26 elements which are corresponding to 26 letters.
* If the character is a letter (convert to lower case if it is upper case), increase by 1 at the letter’s position (Assume the letter ‘a’ is the first position in the 26-letter array)
* Return the 26-letter array after finishing counting the appearances of each letter in the inputted string.
* Perform Function 3.

1. Function 3: Output the letter and the number of its appearances.

***Expectation of User interface:***



**Guidelines**

Use the function **int isalpha (int c)** to check if a character is a letter:

* c: ASCII character
* return: 0 if not a letter; otherwise non-zero

Use the function **int isupper (int c)** to check if a letter is uppercase.

Use the function **int tolower (int c)** to convert an uppercase letter to lowercase letter.