## Lab 10 : More String handling (Slightly modified from the book)

Write methods to do each of the following tasks. Make sure you give each method an appropriate name that describes clearly what it does:

1. Write a prompt “>”, then read in and return a string.

“ I am having a great time studying c# at Sligo IT ”

1. Take one string parameter and write out the length of a given string to the console.
2. Take one string parameter, trim all leading and trailing spaces from the string, and return the new length of the string.
3. Take one string parameter and output the string in upper case. (Can you do this without using the build in function?)
4. Take one string parameter the output the string in lower case.
5. Take one string parameter and output the first position of the character “g” in the string. and also output the first position of the character “g” in the string starting from position 11.
6. Take one string parameter and output the first and last character contained in the string.
7. Take one string parameter and count and display the number of occurrences of the letter ‘a’ in the string.
8. Take one string parameter and display the number of occurrences of each letter of the alphabet in the string.
9. Take one string parameter and return true if the string ends with the characters “nny”. Otherwise return false.
10. Take one string parameter and return true if the string is equal to the string: “I love Sligo” ? Otherwise return false.
11. Take on string parameter, break the string into individual words and display each word on a separate line on the console and then outputs the number of words in the sentence.
12. Take one string parameter and list and output the number of vowels in the string.
13. Take on string parameter and list and output the number of consonants in the string.
14. Take one string parameter and return a string which has been encrypted by replacing each occurrence of the letter ‘a’ with ‘b’ and each occurrence of the letter ‘t’ with ‘s’
15. Password verifier:

Imagine that you are developing an app that requires the user to enter their password. Your app requires that users’ password meet the following criteria.

* The password should be at least six characters long
* The password should contain at least one uppercase and at least one lowercase letter
* The password should have at least one digit

Demonstrate your code with some code that allows the user enter a password and then displays a message indicating whether it is valid or not.

18.Cheque Writer:

Write a program that displays a pay cheque. The program should ask the user to enter the date, the payee’s name and the amount of the cheque. It should then display a simulated cheque with the euro amount spelled out, as shown here:

Date : 14/01/2019

Pay to : John Philips €1920.85

One thousand nine hundred twenty and 85 cents.

19. Write a program that asks the user to enter a series of numbers separated by commas, for example

7,9,10,2,18,6

The program should calculate and display the sum of the numbers.

20. Write a program that asks the user to enter a single-digit numbers with nothing separating them. The program should display the sum of all the single digit numbers in the string. For example if the user enters 2514, the method should return 12 (Hint: convert the string to an array)