3   Strings

3.01   Count the number of spaces in a sentence.

3.02   Invert the characters of a sentence.

3.03   Count the number of vowels of a sentence.

3.04   Change the number of the hundreds to the number of units in a 3-digit number.

3.05   Separate the digits of a number using characters.

3.06   Separate the words from a sentence.

3.07   Given a sentence determine the number of times that each of the distinct words appears.

3.08   Write a program that given a list of N given names determine the percentage of male and female names.
(Note: It is considered a female name if it ends with the letter 'a')
Ex: N: 5   Joao, Cristina, Carlos, Joana, Paula   A: Male: 40%, Female: 60%

3.09   Develop a program that given a sentence computes the average number of letters in the words of the sentence.
Ex: I am going to the beach: A: 3

3.10   Given a text insert spaces between words so that all lines have the same number of characters.

3.11   Given a sentence determine the number of words beginning with a vowel.
Ex: I am going to the beach today: A: 2

3.12   Given a sentence create and print a new sentence composed of the same words of the initial sentence but sorted alphabetically.
Ex: I Went To Cinema   A: Cinema I To Went

3.13   Given a sentence create and print a new sentence with the same words but placed in the reverse order.
Ex: I went to the cinema   A: cinema the to went I

3.14   Given a sentence create and print a new sentence so that the first letter of all words is written in upper case and the other letters as lowercase letters.
Ex: I went to CINEMA   A: I Went To Cinema