TP7   Character strings

Ex 7.1   ASCII Code

A character defined by the type "char" is represented as an integer value called its ASCII code.
Write a program that:
1. displays the ASCII code of a character entered by the user,
2. as well as the characters preceding and following it,
3. and then displays the character corresponding to a code entered by the user (integer),
4. as well as the characters preceding and following it.

Ex 7.2   String manipulations

- *Deleting spaces* : Write a function that takes a character string as input and removes all white spaces from the string.

- *Letters only* : Write a function that takes a character string as a parameter and returns a string containing only the letters in the string.
  Example : "aB'3$@X y" become "aBXy".

- *The most frequent character* : Write a function that displays the most frequent character in a string and its frequency.

- *Delete duplicates* : Write a function that takes a string as input and deletes all duplicate letters, keeping only one occurrence of each letter.
  For example, If the given string is "banana", the function should change it to "ban".

- *Reverse a string* : Write a function that reverses a character string and puts the result into another. Strings are given as arguments. *For example* : " cool !" devient " ! looc ".

- Write a program to test all of the above functions.

Ex 7.3 Word Search

1. *Checking the presence of a word in a sentence*: Write a program that checks whether a user-given word is present in a given sentence, and displays the number of occurrences found with their position in the sentence.

2. *Sort words by length*: Write a program that takes a sentence as input and sorts the words in the sentence in order of length, from shortest to longest, then displays the sentence with the sorted words.

Ex 7.4   Pseudonyme

Write a program that takes a full name as input, then generates and displays a pseudonym using the first letters of each word in the full name, written in capital letters.
For example :   Enter your full name : jean louis david
                Your pseudonym is : JLD

Ex 7.5   Anagram

Write a program that takes two strings of characters as input and checks if they are anagrams of each other (A word formed by changing the place of the letters of another word).
For example : "silent" is an anagram of "listen".