ADDS - Practical 1: Fun with Strings

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UML DIAGRAM

Palindrome
- Pali: char* - PaliNonSpaces: char* - Check: bool.
+ removeNonLetters(char*): char* + lowercase(char*) + isPalindrome(char*): bool

DESCRIPTION

Palindrome:
Interface for checking if a string or array of char* characters in lower case, without spaces or additional symbols, is a palindrome or not. Contains the original string, the string without spaces and other symbols, and a bool that return if the string is or not a palindrome.

char* removeNonLetters(char*) - Function that return a pointer to a new string that take the parameter string and take erase the spaces and other symbols.
void lowercase(char*): - Function that turn al the characters in the string to lowercase characters.
bool isPalindrome(char*) - Function that return true if the string is a Palindrome and not if it is not.

Main:
The main function for this program ask for a string as an input, then turn the input string in a all lowercase characters string, following create a new string with the original string but without the space characters and other symbols, and finally check is the new string is a palindrome, printing Yes if it is, and not if it is not.

TESTING

Following is a description of the test cases that will be used to test my program.

1. Given input: Race fast, safe car.
   I expect output: Yes

2. Given input: Bo1b
   I expect output: Yes

3. Given input: ADDS is fun
   I expect output: No

4. Given input: ‘Amore, Roma’
   I expect output: Yes

5. Given input: “A man, a plan, a canal: Panama”
   I expect output: Yes

6. Given input: This is definitely a Palindorme
   I expect output: No

7. Given input: Aº$%A/A(A)AA=AAA¿A?
   I expect output: Yes