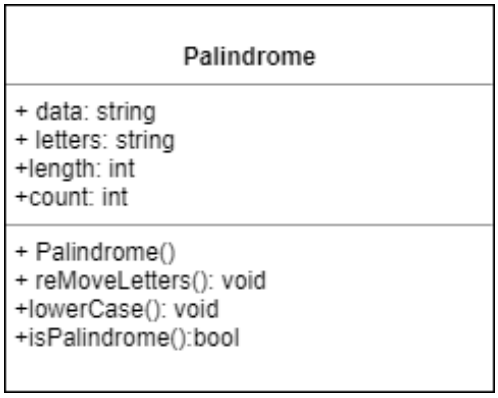
Design

Class diagram



1. properties
    1) data: this is the string type variable to get the initialize array
    2) letters: after removing the non-letters in the array, we can allocate those letters to “letters”
    3) length: initialize the length of the array of data
    4) count: set the value to 0 as initial value

2. behavior
    1) Palindrome (): the default constructor, initialize the array, count and length
    2) reMoveLetters (): we will delete the non-alphabetical letters and then get a new array.
    3) Lowercase (): transformation from uppercase to lowercase for the letters
    4) isPalindrome (): judgement whether it is a Palindrome. If true, print”yes”.”no” otherwise

3. testing

Input	Output	Description
ASDQHSYCS	No	Check the array which is all upper case without any other non-letters
!@#$123qwq	Yes	The case with all kinds of elements including the digit, symbol and letters and is Palindrome
^%&*1434532qwrfs	No	The case with all kinds of elements including the digit, symbol and letters and is not Palindrome
11234323#%@$$$#	No	All numbers and it's not Palindrome since there are no letters
Adds	Yes	Combination with upper and lower case
AAQQAA	Yes	All upper case and is definitely palindrome
aasadsa	No	All lower case and it is not palindrome