Programming Assignment 8

1. Write a function, called **checkPalindrome**, that takes a string as an argument and determines if the string is a palindrome. (20 points)
   A palindrome is a string that is the same forward and backward like: level or noon.

2. Create a function, called **sortStrings**, that takes a list of strings and sorts the list based on the length of string from lower to higher. (20 points)

3. Write a function, called **mixedString**, that takes a word string and computes a list of all words generated by a single swap of letters in the word. (20 points)
   For example ‘swap’ should return [‘pwas’, ‘wasp’, ‘sawp’, swpa’] (notice that letters are only swapped with their immediate neighbors only, i.e. you don’t have ‘waps’)

4. Write a function, called **reversePhrase**, that takes a string of words and returns the string with the words in reverse order. You cannot use any library methods or functions like .split(). (20 points)
   For example if the sentence is: “I love python”, then the function returns: “python love I”

5. Write a function, called **uniqueLetters**, that takes a string as an argument and returns a new string with no duplicated letters. (20 points)
   For example if the word is: “application” then the function returns “aplicton”

-Please remember that all functions need to have proper DocString documentation.
-Refer to the CE_functionComment0.pdf and CE_functionComment1.pdf files for reference.
-Please avoid the use of global variables in your code. Any variable that is required for your functions to perform their respective tasks must be defined inside of the functions themselves. Only the input to your functions, when it applies, can be defined in the global scope.