Programming Assignment on Python String

1. Write a Python program to calculate the length of a string.

2. Write a Python program to count the number of characters (character frequency) in a string.
   Sample String : 'google.com'

3. Write a Python program to get a string made of the first 2 and the last 2 chars from a given a string. If the string length is less than 2, return instead of the empty string.
   Sample String : 'abcdefghij'
   Expected Result : 'abij'
   Sample String : 'ab'
   Expected Result : 'abab'
   Sample String : ' a'
   Expected Result : Empty String

4. Write a Python program to get a string from a given string where all occurrences of its first char have been changed to '$', except the first char itself.
   Sample String : 'restart'
   Expected Result : 'resta$t'

5. Write a Python program to get a single string from two given strings, separated by a space and swap the first two characters of each string.

   Sample String : 'abc', 'xyz'

   Expected Result : 'xyc abz'

6. Write a Python program to add 'ing' at the end of a given string (length should be at least 3). If the given string already ends with 'ing' then add 'ly' instead. If the string length of the given string is less than 3, leave it unchanged.

   Sample String : 'abc'

   Expected Result : 'abcing'

   Sample String : 'string'

   Expected Result : 'stringly'

7. Write a Python program to find the first appearance of the substring 'not' and 'poor' from a given string, if 'not' follows the 'poor', replace the whole 'not'...'poor' substring with 'good'. Return the resulting string.

   Sample String : 'The lyrics is not that poor!'

   'The lyrics is poor!'

   Expected Result : 'The lyrics is good!'

   'The lyrics is poor!'

8. Write a Python program that takes a list of words and returns the length of the longest one.

9. Write a Python program to remove the nth index character from a nonempty string.

10. Write a Python program that accepts a comma separated sequence of words as input and prints the unique words in sorted form (alphanumerically).
    Sample Words : red, white, black, red, green, black
    Expected Result : black, green, red, white

11. Write a Python program to reverses a string if it's length is a multiple of 4.

12. Write a Python function to convert a given string to all uppercase if it contains at least 2 uppercase characters in the first 4 characters.

13. Write a Python program to check whether a string starts with specified characters.

14. Write a Python program to create a Caesar encryption.
    It is a type of substitution cipher in which each letter in the plaintext is replaced by a letter some fixed number of

positions down the alphabet. For example, with a left shift of 3, D would be replaced by A, E would become B, and so on. The method is named after Julius Caesar, who used it in his private correspondence.

15. Write a Python program to display a number in left, right and center aligned of width 10.

16. Write a Python program to reverse a string.

17. Write a Python program to reverse words in a string.

18. Write a Python program to count repeated characters in a string.
    Sample string: 'thequickbrownfoxjumpsoverthelazydog'
    Expected output :
    o 4
    e 3
    u 2
    h 2
    r 2
    t 2

19. Write a Python program to check if a string contains all letters of the alphabet.

20. Write a Python program to count and display the vowels of a given text.

21. Write a Python program to find the first non-repeating character in given string.

22. Write a Python program to find the first repeated word in a given string.

23. Write a Python program to find the second most repeated word in a given string.

24. Write a Python program to remove spaces from a given string.

25. Write a Python program to capitalize first and last letters of each word of a given string.

26. Write a Python program to remove duplicate characters of a given string.

27. Write a Python program to create two strings from a given string. Create the first string using those character which occurs only once and create the second string which consists of multi-time occurring characters in the said string.

28. Write a Python program to create a string from two given strings concatenating uncommon characters of the said strings.

29. Write a Python program to count Uppercase, Lowercase, special character and numeric values in a given string.

30. Write a Python program to swap cases of a given string.