String Exercises Python

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

2. Check if given string is palindrome.

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 : 'Learning Python'
   Expected Result : 'Leon'
   Sample String : 'Pi'
   Expected Result : 'PiPi'
   Sample String : ' S'
   Expected Result : Empty String
   Solution:

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 'bad' follows the 'poor', replace the whole 'not'...'poor' substring with 'good'. Return the resulting string.
   Sample String : 'The music is not that poor!'
   Expected Result : 'The music is good!'

8. Write a Python function 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 to change a given string to a new string where the first and last chars have been exchanged.

11. Write a Python program to remove the characters which have odd index values of a given string.

12. Write a Python program to count the occurrences of each word in a given sentence.

13. Write a Python script that takes input from the user and displays that input back in upper and lower cases.

14. 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, red

15. Write a Python function to create the HTML string with tags around the word(s).

    Sample function and result :
    add_tags('i', 'Python 3.7') -> '<i>Python 3.7</i>'
    add_tags('b', 'Python 3.7 Tutorial') -> 'Python 3.7 Tutorial '

16. Write a Python function to insert a string in the middle of a string.

    Sample function and result :
    insert_sting_middle('[[]]<<>>', 'Python') -> [[Python]]
    insert_sting_middle('{{}}', 'Jython') -> {{Jython}}

17. Write a Python function to get a string made of 4 copies of the last two characters of a specified string (length must be at least 2).

18. Sample function and result :
    insert_end('Python') -> onononon
    insert_end('Exercises') -> eseseses
    Write a Python function to get a string made of its first three characters of a specified string. If the length of the string is less than 3 then return the original string.

19. Sample function and result :
    first_three('ipy') -> ipy
    first_three('python') -> pyt

20. Write a Python program to get the last part of a string before a specified character.

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

22. 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.
23. Write a Python program to sort a string lexicographically.
24. Write a Python program to remove a newline in Python.
25. Write a Python program to check whether a string starts with specified characters.
26. Write a Python program to create a Caesar encryption.

   Note : In cryptography, a Caesar cipher, also known as Caesar's cipher, the shift cipher, Caesar's code or Caesar shift, is one of the simplest and most widely known encryption techniques. 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.

27. Write a Python program to display formatted text (width=50) as output.
28. Write a Python program to remove existing indentation from all of the lines in a given text.
29. Write a Python program to add a prefix text to all of the lines in a string.
30. Write a Python program to set the indentation of the first line.
31. Write a Python program to print the following floating numbers upto 2 decimal places.
32. Write a Python program to print the following floating numbers upto 2 decimal places with a sign.
33. Write a Python program to print the following floating numbers with no decimal places.
34. Write a Python program to print the following integers with zeros on the left of specified width.
35. Write a Python program to print the following integers with '*' on the right of specified width.
36. Write a Python program to display a number with a comma separator.
37. Write a Python program to format a number with a percentage.
38. Write a Python program to display a number in left, right and center aligned of width 10.
39. Write a Python program to count occurrences of a substring in a string.
40. Write a Python program to reverse a string.
41. Write a Python program to reverse words in a string.
42. Write a Python program to strip a set of characters from a string.
43. Write a Python program to count repeated characters in a string.
44. Sample string: 'thequickbrownfoxjumpsoverthelazydog'
   Expected output :

o 4

e 3

u 2

h 2

r 2

t 2

45. Write a Python program to print the square and cube symbol in the area of a rectangle and volume of a cylinder.

Sample output:

The area of the rectangle is 1256.66cm^2

The volume of the cylinder is 1254.725cm^3

46. Write a Python program to print the index of the character in a string.

Sample string: we3areresources

Expected output:

Current character w position at 0

Current character e position at 1

Current character 3 position at 2

Current character a position at 3

- -

Current character c position at 12

Current character e position at 13

Current character c position at 14

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

48. Write a Python program to convert a string in a list.

49. Write a Python program to lowercase first n characters in a string.

50. Write a Python program to swap comma and dot in a string.

Sample string: "32.054,23"

Expected Output: "32,054.23"

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

52. Write a Python program to split a string on the last occurrence of the delimiter.

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

54. Write a Python program to print all permutations with given repetition number of characters of a given string.

55. Write a Python program to find the first repeated character in a given string.

56. Write a Python program to find the first repeated character of a given string where the index of first occurrence is smallest.

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

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

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

60. Write a Python program to move spaces to the front of a given string.

61. Write a Python program to find the maximum occurring character in a given string.

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

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

64. Write a Python program to compute sum of digits of a given string.

65. Write a Python program to remove leading zeros from an IP address.