Programs on Strings

1. Write a C program to find the length of a given string **without** using string function "strlen".

2. Write a C program to copy one string into another **without** using inbuilt function "strcpy"

3. Write a C program to concat two strings **without** using strncat function.

4. Write a C program to convert a string from upper case to lower case **without** using inbuilt function.

5. Write a C program to reverse a string **without** using string functions.

6. Write a C program to print the first occurrence of the character in the given string **without** using strchr.

7. Write a C program to compare two strings and print whether they are equal or unequal.

8. Write a C program to check whether the given string is palindrome or not.

9. Write a C program to print the vowels in the given string.

10. Write a C program to insert a new character in a given string at a given position.

11. Write a C program to capitalize first letters of each word in a given string.

12. Write a C program to find the most and least repeated characters in a given string.

13. Write a C program to find the frequency of "the" word in a given lengthy string.

14. Write a C program to cound the number of vowels, consonants, digits and white spaces in a string

15. Write a C program to sort the characters in a string in lexicographical order (dictionary order)

16. Write a C program to print the string after deleting the vowels in the string.

17. Write a C program to cound number of words in a string.

18. Write a C program to sort a given string in ascending order.

19. A given string contains the bracket characters '(', ')', '{', '}', '<', '>', '[' and ']', Write a C programme to check the said string is valid or not. The input string will be valid when open brackets and closed brackets are same type of brackets

20. Write a C program to sort the words in a given string.

21. Write a C program to print the smallest and largest word in a given string.

22. Write a C program to print the first capital letter in a given string.

23. Write a C program to remove all repeated characters from a string.

24. Write a C program to print the frequency of each character in a given string.

25. Write a C program to remove white spaces from a given string.

26. Write a C program to print the first non repeated character from the string.

27. Write a C program to check if a given string is pangram or not.
A pangram is a sentence containing every letter in the English Alphabet.

Input: "The quick brown fox jumps over the lazy dog"
Output: is a Pangram
Explanation: Contains all the characters from 'a' to 'z'

28. Write a C program to check if two given Strings are Isomorphic to each other.
Two strings str1 and str2 are called isomorphic if there is a one-to-one mapping possible for every character of str1 to every character of str2. And all occurrences of every character in 'str1' map to the same character in 'str2'.

Input: str1 = "aab", str2 = "xxy"
Output: True
Explanation: 'a' is mapped to 'x' and 'b' is mapped to 'y'.

Input: str1 = "aab", str2 = "xyz"
Output: False
Explanation: One occurrence of 'a' in str1 has 'x' in str2 and other occurrence of 'a' has 'y'.

29. Write a C program to check whether two Strings are anagram of each other
An anagram of a string is another string that contains the same characters, only the order of characters can be different. For example, "abcd" and "dabc" are an anagram of each other.

Input: str1 = "listen" str2 = "silent"
Output: "Anagram"
Explanation: All characters of "listen" and "silent" are the same.

Input: str1 = "gram" str2 = "arm"
Output: "Not Anagram".

30. Given a string sentence which consists of both uppercase & lowercase alphabets and words are separated by empty space characters. Write a program to return the length of the last word in the string. If string is empty return "-1"

31. Sachin is a small boy who is fond of playing with strings. He also loves people who can show him some cool operations on strings. Sachin is very bored so he asks you to reverse a string that he likes. But as Sachin is a small boy so he sometimes gives you invalid string. A string is invalid if it contains numbers also. If string is invalid just print "invalid string" as output. Else print the reverse of that string.

32. A programmer is given with a string and he is asked to check the ,Availability of smallest chunk of the character in the string .If the smallest chunk of character is available ,the programmer will return the index of the chunk , in other cases he will return the unavailable index . If the smallest chunk is found, print its index. Else print 'Character not found'.

33. A Machine is given two names as inputs, the machine should suggest the possibility of forming the second name from the first name .If the second name is possible it should indicate yes ,if not it should indicate no .

34. A splitting machine is given a character array as an input , the splitting machine splits the character array in all possible methods to make individual strings

Input :
AXLE
Output :
A
X
L
E
AX
XL
LE
AXL
XLE
AXLE

35. There are two students who are in initial stage of writing words, so as a programmer you are requested to check the word written by them if the word contains alternate characters we need to return yes otherwise no ?
Input1 :
ABABAB
Output1 :
YES

Input2 :
XYZ
Output2
NO:

36. Harish is designing a language processor which processes only alphabetical data. This alphabetical data is processed in a way that repetition of alphabets are not allowed, now your task is to design the code for alphabetical data processing.
Input 1:
Hai Hello C Program
Output 1:
Hai elo C Prgm.

Input 2:
Hello
Output 2:
Helo

37. Vishwak the mathematics teacher asked to solve a book of expressions consisting of characters, operators, and brackets. But Vishwak wants to give simplified expressions by removing brackets from the expressions. Write a program to help Vishwak simplify an expression by removing brackets

Input:
x-(p+q)+(y-a)
Output:
x-p+q+y-a

38. Aman, a software developer in a company. Presently he is working on a code for the company, but while running the program he gets an error.After analyzing the code ,he gets to know that there was an error in a particular section of the code where have to print the first occurrence of all the letters present in that order of a string given. So, he asks you for a code , where you get a string as input and you have to print the first occurrence of all the letters in that order only ,as you are his fellow mate.

Input: aabacdbdd
Output: abcd

Input: school
Output: Schol

39. In the Byteland country a string "S" is said to super ascii string if and only if count of each character in the string is equal to its ascii value.
In the Byteland country ascii code of 'a' is 1, 'b' is 2 ...'z' is 26.
Your task is to find out whether the given string is a super ascii string or not.

Input:
bba
scca

Output:
Yes
No

40. Write a C program to remove characters from first string which are present in second string.