

String Practice Problems-Set 1

1. Write a program that extracts a substring from a specified position in a given string. If a character count is provided, extract that many characters starting from the position; if the count is 0, return the substring from the position to the end of the string. For example, given "Working with strings is fun", starting at position 4 with a length of 4, the output should be "king".
2. Write a program that converts a numeric string, such as "124", into its integer form, 124. If the string does not represent a valid integer, handle the error appropriately.
3. Write a program that replaces any occurrence of two or more consecutive spaces in a string with a single space. For example, if the input is "Grim return to the planet of apes!!", the output should be "Grim return to the planet of apes!!".
4. Write a program that identifies all the words in a sentence and outputs each word on a separate line. For example, for the input "The quick brown fox", the output should be:
The
quick
brown
fox
5. Write a program to delete all vowels from a sentence. Assume that the sentence is not more than 80 characters long. Solve it first using a temporary array. Solve it again without using any temporary array.

Sample input	Sample output
The cat is brown	Th ct s brwn

6. Write a program that takes a set of names of individuals separated by commas as input and abbreviates the first, middle and other names except the last name by their first letter. Input will be a string from the user and the output will be another string.

Sample input	Sample output
Sukarna Barua, Tanvir Al Amin	S Barua, T A Amin

7. Write a program to count the number of occurrences of a word in a sentence. Input will be two strings and output will be a number.

Sample input	Sample output
The cat chased the other cat around the cat tree cat	3

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8. Write a program that inputs a line of text into char array s[100]. Output the line in uppercase letters and in lowercase letters.

Sample input	Sample output
The Cat is Brown	THE CAT IS BROWN the cat is brown

9. Write a program that inputs four strings that represent integers, converts the strings to integers, sums the values and prints the sum of the two values. Inputs must be taken as strings.
10. Write a program that inputs two strings that represent floating-point values, converts the strings to double values, sums the values, and prints the total. Inputs must be taken as two strings. Output is a floating-point number.
11. Write a program that compare two strings input by the user. The program should output -1, 0, and +1 based on whether the first string is less than, equal to or greater than the second string.

Sample input	Sample output
hello world	-1
mango apple	1
dark darker	-1

12. Write a program that inputs a line of text, separates each word, and then constructs a new sentence where words are in reverse order.

Sample input	Sample output
the cat is brown	brown is cat the
baby is crying	crying is baby

13. Write a program that takes a string as input and counts the occurrences of alphabets.

Sample input	Sample output
banana	a:3, b:1, n:2
red apple	r:1, a:1, e:2, d:1, p:2, l:1

14. Write a function strend(s,t), which returns 1 if the string t occurs at the end of the string s, and zero otherwise. Write a main function to take inputs s and t and output the result.

Sample input	Sample output
The cat is red red	1
The cat is red cat	0

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15. Write the function `strindex(s,t)` which returns the position of the rightmost occurrence of `t` in `s`, or -1 if there is none. Write a main program to take inputs `s` and `t` and output the result.

Sample input	Sample output
The red cat is not really red red	26
The red cat is not really red cat	8