**WarmUP**

1 ) Implement an algorithm to determine if a string has all unique characters.What if you can not use additional data structures?

2 ) Write code to reverse a C-Style String.(C-String means that “abcd” is represented as five characters, including the null character.)

3 ) Design an algorithm and write code to remove the duplicate characters in a string without using any additional buffer.NOTE: One or two additional variables are fine.An extra copy of the array is not.

FOLLOW UP

Write the test cases for this method

4 ) Write a method to decide if two strings are anagrams or not.

5 ) Write a method to replace all spaces in a string with ‘%20’.

6 ) Given an image represented by an NxN matrix, where each pixel in the image is 4 bytes, write a method to rotate the image by 90 degrees.Can you do this in place?

7 ) Write an algorithm such that if an element in an MxN matrix is 0, its entire row and column is set to 0.

8 ) Assume you have a method isSubstring which checks if one word is a substring of another.Given two strings, s1 and s2, write code to check if s2 is a rotation of s1 using only one call to isSubstring (i.e., “waterbottle” is a rotation of “erbottlewat”).

1. How do you reverse a given string in place? ([solution](http://www.java67.com/2016/06/how-to-reverse-string-in-place-in-java.html))
2. How do you print duplicate characters from a string? ([solution](http://java67.blogspot.sg/2014/03/how-to-find-duplicate-characters-in-String-Java-program.html))
3. How do you check if two strings are anagrams of each other? ([solution](http://javarevisited.blogspot.sg/2013/03/Anagram-how-to-check-if-two-string-are-anagrams-example-tutorial.html))
4. How do you find all the permutations of a string? ([solution](http://javarevisited.blogspot.com/2015/08/how-to-find-all-permutations-of-string-java-example.html))
5. How can a given string be reversed using recursion? ([solution](http://javarevisited.blogspot.sg/2012/01/how-to-reverse-string-in-java-using.html))
6. How do you check if a string contains only digits? ([solution](http://javarevisited.blogspot.sg/2012/10/regular-expression-example-in-java-to-check-String-number.html))
7. How do you find duplicate characters in a given string? ([solution](http://java67.blogspot.sg/2014/03/how-to-find-duplicate-characters-in-String-Java-program.html))
8. How do you count a number of vowels and consonants in a given string? ([solution](http://java67.blogspot.sg/2013/11/how-to-count-vowels-and-consonants-in-Java-String-word.html))
9. How do you count the occurrence of a given character in a string? ([solution](http://javarevisited.blogspot.sg/2012/12/how-to-count-occurrence-of-character-in-String.html))
10. How do you print the first non-repeated character from a string? ([solution](http://javarevisited.blogspot.sg/2014/03/3-ways-to-find-first-non-repeated-character-String-programming-problem.html))
11. How do you convert a given String into int like the atoi()? ([solution](https://javarevisited.blogspot.com/2011/08/convert-string-to-integer-to-string.html))
12. How do you reverse words in a given sentence without using any library method? ([solution](http://java67.blogspot.com/2015/06/how-to-reverse-words-in-string-java.html))
13. How do you check if two strings are a rotation of each other? ([solution](http://www.java67.com/2017/07/string-rotation-in-java-write-program.html))
14. How do you check if a given string is a palindrome? ([solution](http://java67.blogspot.com/2015/06/how-to-check-is-string-is-palindrome-in.html))
15. How do you find the length of the longest substring without repeating characters? (solution)
16. Given string str, How do you find the longest palindromic substring in str? (solution)
17. How to convert a byte array to String? ([solution](https://javarevisited.blogspot.com/2014/08/2-examples-to-convert-byte-array-to-String-in-Java.html))
18. how to remove the duplicate character from String? ([solution](https://javarevisited.blogspot.com/2016/06/how-to-remove-duplicate-characters-from-String-Java.html))
19. How to find the maximum occurring character in given String? ([solution](http://javarevisited.blogspot.com/2012/12/how-to-count-occurrence-of-character-in-String.html))
20. How do you remove a given character from String? ([solution](http://java67.blogspot.com/2013/03/how-to-replace-string-in-java-character-example.html))