

1) Remove duplicate words from the array. (Google)

input: [apple, banana, coconut, banana] output: [apple, banana, coconut]

Follow up: What if the array is too large to fit into memory?

2) Reverse the words in a string, but not their letters.

ie: "Take the dog out" becomes "out dog the Take"

9) Given two strings, determine if one is a circular permutation of the other or not. For example abcd, cdab are circular permutations. Strings are the same size

ex. apple, pleap

10) Given a string, return the longest repeated substring (the substring of longest length seen more than once in the string). Don't use dynamic programming. (Amazon)

http://en.wikipedia.org/wiki/Longest_repeated_substring_problem

11) Given an array of strings where all but one are repeated an even number of times, return the string repeated an odd number of times. (Amazon)

If you can't use a set?

12) Remove duplicates from string. Given "bananas", return "bans". Give an $O(n)$ and $O(n^2)$ solution.

13) Print all permutations of length n for a given string.

15) Find the first nonrepeated character in a string. "racecar"

with a hash: which hashing function would you use?

if given 2 hashing functions, how would you evaluate which one is better?

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16) Print all palindrome substrings for a given string.

Manacher's algorithm

17) Given an image represented by an $N \times N$ 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?

18) Write an algorithm such that if an element in an $M \times N$ matrix is 0, its entire row and column are set to 0.