260. Single Number III

Solved

Medium

Topics

Companies

Given an integer array nums, in which exactly two elements appear only once and all the other elements appear exactly twice. Find the two elements that appear only once. You can return the answer in any order.

You must write an algorithm that runs in linear runtime complexity and uses only constant extra space.

Example 1:

Input: nums = [1,2,1,3,2,5]

Output: [3,5]

Explanation: [5, 3] is also a valid answer.

Example 2:

Input: nums = [-1,0]

Output: [-1,0]

Example 3:

Input: nums = [0,1]

Output: [1,0]

Constraints:

2 <= nums.length <= 3 \* 104

-231 <= nums[i] <= 231 - 1

Each integer in nums will appear twice, only two integers will appear once.

CODE

class Solution {

public String sortVowels(String s) {

int[] vowels = new int[10]; // Array to count vowels

for (char c : s.toCharArray()) {

int idx = getVowelIndex(c);

if (idx != -1) {

vowels[idx]++;

}

}

StringBuilder sb = new StringBuilder();

for (char c : s.toCharArray()) {

if (isVowel(c)) {

for (int i = 0; i < vowels.length; i++) {

if (vowels[i] > 0) {

sb.append(getVowelFromIndex(i));

vowels[i]--;

break;

}

}

} else {

sb.append(c);

}

}

return sb.toString();

}

private boolean isVowel(char c) {

return "AEIOUaeiou".indexOf(c) >= 0;

}

private int getVowelIndex(char c) {

String vowels = "AEIOUaeiou";

return vowels.indexOf(c);

}

private char getVowelFromIndex(int idx) {

String vowels = "AEIOUaeiou";

return vowels.charAt(idx);

}

}