Sl. No	Problem Statement
1	**Assignment 3 (30 Jan 2024)** **Write Lex program for the following : (Question 1 - 5 marks, Question 2 - 5 marks)** Mainu's friend Maithili gave him a bag with *N* strings. All the strings are binary which are made up of 0's and 1's only. Maithili decides to consider the strings in the bag which have an odd number of 1's and even number of 0's as Accepted otherwise Rejected. Maithili wants to know the Accepted and Rejected strings from the bag and their count also. Mainu got very confused by all this, so he asked for your help. **Input format** The first line of input contains positive integer ***N*** strings. The second line contains ***N*** strings separated with space. **Constraints** 1 <= ***N*** < = 10,000 **Output format** First line of the output contains the A(Accepted), R(Rejected) and I(Invalid) strings from the bag. The second line contains Count of the Accepted and Rejected strings respectively.

Sample Input	**Sample Input**	**Sample Input**	**Sample Input**	**Sample Input**
4 10001 10011 asdf 1010100	5 10110 1100 1000100 zrx	2 0101010 001110001	5.5	3 11 00.11 0101
Sample Output	**Sample Output**	**Sample Output**	**Sample Output**	**Sample Output**
R A I A 2 1	A R R I 1 2	A R 1 1	-1	-2

2

Ehan has a set of strings S consisting of a’s and b’s, as only characters. Ehan is a sorted person, he does not like randomness, so when he looks at the string and finds that symbols in the strings are in random order. He wishes to check for the valid and invalid strings, based on the condition : valid string - the string consists of alternate a's and b's, otherwise it is invalid. And also he finds String S1 with a minimum number of symbols from the string set S.

Input format

The first line of input contains strings S.

Constraints

1 <= ***S*** < = 1,000

Output format

First line of the output contains 1(for valid string), -1(for invalid string).

Second line contains String S1 and the total number of symbols in it.

Sample Input	**Sample Input**	**Sample Input**	**Sample Input**
abaaba baba ababa ababaa	10110	bba abaaa abbab babab abababababaab	mptn
Sample Output	**Sample Output**	**Sample Output**	**Sample Output**
-1 1 1 -1 baba 4	-2	-1 -1 -1 1 -1 bba 3	-2