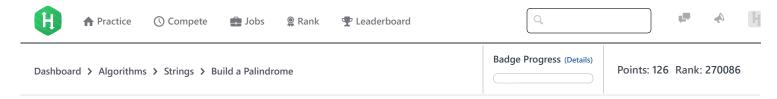
15/11/2017 HackerRank



Build a Palindrome



You have two strings, \boldsymbol{a} and \boldsymbol{b} . Find a string, \boldsymbol{s} , such that:

- s can be expressed as $s=s_a+s_b$ where s_a is a non-empty substring of a and s_b is a non-empty substring of b.
- s is a palindromic string.
- The length of **s** is as long as possible.

For each of the q pairs of strings (a_i and b_i) received as input, find and print string s_i on a new line. If you're able to form more than one valid string s_i , print whichever one comes first alphabetically. If there is no valid answer, print -1 instead.

Input Format

The first line contains a single integer, q, denoting the number of queries. The subsequent lines describe each query over two lines:

- 1. The first line contains a single string denoting a.
- 2. The second line contains a single string denoting \boldsymbol{b} .

Constraints

- $1 \le q \le 10$
- $1 \le |a|, |b| \le 10^5$
- a and b contain only lowercase English letters.
- Sum of |a| over all queries does not exceed 2×10^5
- Sum of |b| over all queries does not exceed 2×10^5

Output Format

For each pair of strings (a_i and b_i), find some s_i satisfying the conditions above and print it on a new line. If there is no such string, print -1 instead.

Sample Input

3 bac bac abc def jdfh fds

Sample Output

aba -1 dfhfd 15/11/2017 HackerRank

Explanation

We perform the following three queries:

```
1. Concatenate s_a =  "a" with s_b =  "ba" to create s = "aba".
```

- 2. We're given a = "abc" and $s_a = "def"$; because both strings are composed of unique characters, we cannot use them to form a palindromic string. Thus, we print -1.
- 3. Concatenate $s_a = "dfh"$ with $s_b = "fd"$ to create s = "dfhfd". Note that we chose these particular substrings because the length of string s must be maximal.

F in
Submissions:923
Max Score:80
Difficulty: Advanced
Rate This Challenge:
☆☆☆☆☆

```
Current Buffer (saved locally, editable) & 49
                                                                                           Java 7
                                                                                                                             *
 1 ▼ import java.io.*;
 2 import java.util.*;
 3
    import java.text.*;
    import java.math.*;
 5
    import java.util.regex.*;
 7 ▼ public class Solution {
 8
 9 ▼
         public static void main(String[] args) {
             /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named Solution. */
10 ▼
11
12 }
                                                                                                                     Line: 1 Col: 1
1 Upload Code as File
                      Test against custom input
                                                                                                        Run Code
                                                                                                                     Submit Code
```

Join us on IRC at #hackerrank on freenode for hugs or bugs.

Contest Calendar | Blog | Scoring | Environment | FAQ | About Us | Support | Careers | Terms Of Service | Privacy Policy | Request a Feature