C. Polo the Penguin and Strings

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

Little penguin Polo adores strings. But most of all he adores strings of length n.

One day he wanted to find a string that meets the following conditions:

1. The string consists of n lowercase English letters (that is, the string's length equals n), exactly k of these letters are distinct.
2. No two neighbouring letters of a string coincide; that is, if we represent a string as $s = s_1 s_2 \ldots s_n$, then the following inequality holds, $s_i \neq s_{i+1} (1 \leq i < n)$.
3. Among all strings that meet points 1 and 2, the required string is lexicographically smallest.

Help him find such string or state that such string doesn't exist.

String $x = x_1 x_2 \ldots x_p$ is *lexicographically less* than string $y = y_1 y_2 \ldots y_q$, if either $p < q$ and $x_1 = y_1, x_2 = y_2, \ldots, x_p = y_p$, or there is such number r $(r < p, r < q)$, that $x_1 = y_1, x_2 = y_2, \ldots, x_r = y_r$ and $x_{r+1} < y_{r+1}$. The characters of the strings are compared by their ASCII codes.

Input

A single line contains two positive integers n and k $(1 \leq n \leq 10^6, 1 \leq k \leq 26)$ — the string's length and the number of distinct letters.

Output

In a single line print the required string. If there isn't such string, print "`-1`" (without the quotes).

Examples

input
7 4
output
ababacd

input
4 7
output
-1