

1415. The k-th Lexicographical String of All Happy Strings of Length n

Description

A **happy string** is a string that:

- consists only of letters of the set `['a', 'b', 'c']`.
- `s[i] != s[i + 1]` for all values of `i` from `1` to `s.length - 1` (string is 1-indexed).

For example, strings **"abc"**, **"ac"**, **"b"** and **"abcbabcbcb"** are all happy strings and strings **"aa"**, **"baa"** and **"ababbc"** are not happy strings.

Given two integers `n` and `k`, consider a list of all happy strings of length `n` sorted in lexicographical order.

Return *the kth string* of this list or return an **empty string** if there are less than `k` happy strings of length `n`.

Example 1:

Input: `n = 1, k = 3`

Output: `"c"`

Explanation: The list `["a", "b", "c"]` contains all happy strings of length 1. The third string is "c".

Example 2:

Input: `n = 1, k = 4`

Output: `""`

Explanation: There are only 3 happy strings of length 1.

Example 3:

Input: `n = 3, k = 9`

Output: `"cab"`

Explanation: There are 12 different happy string of length 3 `["aba", "abc", "aca", "acb", "bab", "bac", "bca", "bcb", "cab", "cac", "cba", "cbc"]`. You will find the 9th string = "cab"

Constraints:

- `1 <= n <= 10`
- `1 <= k <= 100`

