Problem 1663: Smallest String With A Given Numeric Value

Problem Information

Difficulty: Medium
Acceptance Rate: 67.31%
Paid Only: No
Tags: String, Greedy

Problem Description

The **numeric value** of a **lowercase character** is defined as its position `(1-indexed)` in the alphabet, so the numeric value of `a` is `1`, the numeric value of `b` is `2`, the numeric value of `c` is `3`, and so on.

The **numeric value** of a **string** consisting of lowercase characters is defined as the sum of its characters' numeric values. For example, the numeric value of the string `"abe"` is equal to `1 + 2 + 5 = 8`.

You are given two integers `n` and `k`. Return _the**lexicographically smallest string** with **length** equal to `n` and **numeric value** equal to `k`._

Note that a string `x` is lexicographically smaller than string `y` if `x` comes before `y` in dictionary order, that is, either `x` is a prefix of `y`, or if `i` is the first position such that `x[i] != y[i]`, then `x[i]` comes before `y[i]` in alphabetic order.

Example 1:

Input: n = 3, k = 27 **Output:** "aay" **Explanation:** The numeric value of the string is 1 + 1 + 25 = 27, and it is the smallest string with such a value and length equal to 3.

Example 2:

Input: n = 5, k = 73 **Output:** "aaszz"

Constraints:

* `1 <= n <= 105` * `n <= k <= 26 * n`

Code Snippets

C++:

```
class Solution {
public:
string getSmallestString(int n, int k) {

}
};
```

Java:

```
class Solution {
public String getSmallestString(int n, int k) {

}
}
```

Python3:

```
class Solution:
def getSmallestString(self, n: int, k: int) -> str:
```