Question #24
Decode String(Leetcode #394)
Difficulty :Medium Category :Stacks

Given an encoded string, return its decoded string.

The encoding rule is: `k[encoded_string]`, where the `encoded_string` inside the square brackets is being repeated exactly `k` times. Note that `k` is guaranteed to be a positive integer.

You may assume that the input string is always valid; No extra white spaces, square brackets are well-formed, etc.

Furthermore, you may assume that the original data does not contain any digits and that digits are only for those repeat numbers, `k`. For example, there won't be input like `3a` or `2[4]`.

Example 1:

Input: s = "3[a]2[bc]"

Output: "aaabcbc"

Example 2:

Input: s = "3[a2[c]]"

Output: "accaccacc"

Example 3:

Input: s = "2[abc]3[cd]ef"

Output: "abcabccdcdcdef"

Example 4:

Input: s = "abc3[cd]xyz"

Output: "abccdcdcdxyz"

Constraints:

- `1 <= s.length <= 30`
- `s` consists of lowercase English letters, digits, and square brackets `'[]'`.
- `s` is guaranteed to be **a valid** input.
- All the integers in `s` are in the range `[1, 300]`

Good luck!

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