Problem 2182: Construct String With Repeat Limit

Problem Information

Difficulty: Medium
Acceptance Rate: 70.88%
Paid Only: No
Tags: Hash Table, String, Greedy, Heap (Priority Queue), Counting

Problem Description

You are given a string `s` and an integer `repeatLimit`. Construct a new string `repeatLimitedString` using the characters of `s` such that no letter appears **more than** `repeatLimit` times **in a row**. You do **not** have to use all characters from `s`.

Return _the**lexicographically largest** _`repeatLimitedString` _possible_.

A string `a` is **lexicographically larger** than a string `b` if in the first position where `a` and `b` differ, string `a` has a letter that appears later in the alphabet than the corresponding letter in `b`. If the first `min(a.length, b.length)` characters do not differ, then the longer string is the lexicographically larger one.

Example 1:

Input: s = "cczazcc", repeatLimit = 3 **Output:** "zzcccac" **Explanation:** We use all of the characters from s to construct the repeatLimitedString "zzcccac". The letter 'a' appears at most 1 time in a row. The letter 'c' appears at most 3 times in a row. The letter 'z' appears at most 2 times in a row. Hence, no letter appears more than repeatLimit times in a row and the string is a valid repeatLimitedString. The string is the lexicographically largest repeatLimitedString possible so we return "zzcccac". Note that the string "zzcccca" is lexicographically larger but the letter 'c' appears more than 3 times in a row, so it is not a valid repeatLimitedString.

Example 2:

Input: s = "aababab", repeatLimit = 2 **Output:** "bbabaa" **Explanation:** We use only some of the characters from s to construct the repeatLimitedString "bbabaa". The letter 'a' appears at most 2 times in a row. The letter 'b' appears at most 2 times in a row. Hence, no letter appears more than repeatLimit times in a row and the string is a valid repeatLimitedString. The string is the lexicographically largest repeatLimitedString possible so we return "bbabaa". Note that the string "bbabaaa" is lexicographically larger but the letter 'a' appears more than 2 times in a row, so it is not a valid repeatLimitedString.

Constraints:

* `1 <= repeatLimit <= s.length <= 105` * `s` consists of lowercase English letters.

Code Snippets

C++:

```cpp
class Solution {
public:
string repeatLimitedString(string s, int repeatLimit) {


}
};
```

Java:

```java
class Solution {
public String repeatLimitedString(String s, int repeatLimit) {


}
}
```

Python3:

```python
class Solution:
def repeatLimitedString(self, s: str, repeatLimit: int) -> str:
```