Problem 3646: Next Special Palindrome Number

Problem Information

Difficulty: Hard
Acceptance Rate: 24.99%
Paid Only: No
Tags: Backtracking, Bit Manipulation

Problem Description

You are given an integer `n`.

A number is called **special** if:

* It is a **palindrome**. * Every digit `k` in the number appears **exactly** `k` times.

Return the **smallest** special number **strictly** greater than `n`.

Example 1:

Input: n = 2

Output: 22

Explanation:

22 is the smallest special number greater than 2, as it is a palindrome and the digit 2 appears exactly 2 times.

Example 2:

Input: n = 33

Output: 212

Explanation:

212 is the smallest special number greater than 33, as it is a palindrome and the digits 1 and 2 appear exactly 1 and 2 times respectively.

Constraints:

* `0 <= n <= 1015`

Code Snippets

C++:

```
class Solution {
public:
long long specialPalindrome(long long n) {

}
};
```

Java:

```
class Solution {
public long specialPalindrome(long n) {

}
}
```

Python3:

```
class Solution:
def specialPalindrome(self, n: int) -> int:
```