Problem 1328: Break a Palindrome

Problem Information

Difficulty: Medium
Acceptance Rate: 51.61%
Paid Only: No
Tags: String, Greedy

Problem Description

Given a palindromic string of lowercase English letters `palindrome`, replace **exactly one** character with any lowercase English letter so that the resulting string is **not** a palindrome and that it is the **lexicographically smallest** one possible.

Return _the resulting string. If there is no way to replace a character to make it not a palindrome, return an**empty string**._

A string `a` is lexicographically smaller than a string `b` (of the same length) if in the first position where `a` and `b` differ, `a` has a character strictly smaller than the corresponding character in `b`. For example, `"abcc"` is lexicographically smaller than `"abcd"` because the first position they differ is at the fourth character, and `'c'` is smaller than `'d'`.

Example 1:

Input: palindrome = "abccba" **Output:** "aaccba" **Explanation:** There are many ways to make "abccba" not a palindrome, such as "_z_ bccba", "a _a_ ccba", and "ab _a_ cba". Of all the ways, "aaccba" is the lexicographically smallest.

Example 2:

Input: palindrome = "a" **Output:** "" **Explanation:** There is no way to replace a single character to make "a" not a palindrome, so return an empty string.

Constraints:

* `1 <= palindrome.length <= 1000` * `palindrome` consists of only lowercase English letters.

Code Snippets

C++:

```
class Solution {
public:
string breakPalindrome(string palindrome) {

}
};
```

Java:

```
class Solution {
public String breakPalindrome(String palindrome) {

}
}
```

Python3:

```
class Solution:
def breakPalindrome(self, palindrome: str) -> str:
```