# 6454. Lexicographically Smallest Palindrome

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You are given a string `s` consisting of **lowercase English letters**, and you are allowed to perform operations on it. In one operation, you can **replace** a character in `s` with another lowercase English letter.

Your task is to make `s` a **palindrome** with the **minimum number of operations** possible. If there are **multiple palindromes** that can be made using the **minimum** number of operations, make the **lexicographically smallest** one.

A string `a` is lexicographically smaller than a string `b` (of the same length) if in the first position where `a` and `b` differ, string `a` has a letter that appears earlier in the alphabet than the corresponding letter in `b`.

Return *the resulting palindrome string.*

| User Accepted: | 2 |
| --- | --- |
| User Tried: | 3 |
| Total Accepted: | 2 |
| Total Submissions: | 3 |
| Difficulty: | Easy |

**Example 1:**

```
Input: s = "egcfe"
Output: "efcfe"
Explanation: The minimum number of operations to make "egcfe" a palindrome is 1, and the lexicographically smallest palindrome
```

**Example 2:**

```
Input: s = "abcd"
Output: "abba"
Explanation: The minimum number of operations to make "abcd" a palindrome is 2, and the lexicographically smallest palindrome s
```

**Example 3:**

```
Input: s = "seven"
Output: "neven"
Explanation: The minimum number of operations to make "seven" a palindrome is 1, and the lexicographically smallest palindrome
```

**Constraints:**

- `1 <= s.length <= 1000`
- `s` consists of only lowercase English letters.

JavaScript ▾

```javascript
const makeSmallestPalindrome = (s) => {
    let n = s.length;
    s = s.split("");
    for (let i = 0; i < n >> 1; i++) {
        if (s[i] != s[n - 1 - i]) {
            if (s[i] < s[n - 1 - i]) {
                s[n - 1 - i] = s[i];
            } else {
                s[i] = s[n - 1 - i];
            }
        }
    }
    return s.join("");
};
```

☐ **Custom Testcase**    Use Example Testcases

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