

Problem 214: Shortest Palindrome

Problem Information

Difficulty: Hard

Acceptance Rate: 41.39%

Paid Only: No

Tags: String, Rolling Hash, String Matching, Hash Function

Problem Description

You are given a string `s`. You can convert `s` to a palindrome by adding characters in front of it.

Return `the shortest palindrome you can find by performing this transformation`.

Example 1:

Input: `s = "aacecaaa"` **Output:** `"aaacecaaa"`

Example 2:

Input: `s = "abcd"` **Output:** `"dcbabcd"`

Constraints:

`0 <= s.length <= 5 * 104` `s` consists of lowercase English letters only.

Code Snippets

C++:

```
class Solution {
public:
    string shortestPalindrome(string s) {
```

```
}  
};
```

Java:

```
class Solution {  
    public String shortestPalindrome(String s) {  
  
    }  
}
```

Python3:

```
class Solution:  
    def shortestPalindrome(self, s: str) -> str:
```