Problem 1180: Count Substrings with Only One Distinct Letter

Problem Information

Difficulty: Easy
Acceptance Rate: 0.00%
Paid Only: No

Problem Description

Given a string

s

, return

the number of substrings that have only

one distinct

letter

.

Example 1:

Input:

s = "aaaba"

Output:

8

Explanation:

The substrings with one distinct letter are "aaa", "aa", "a", "b". "aaa" occurs 1 time. "aa" occurs 2 times. "a" occurs 4 times. "b" occurs 1 time. So the answer is 1 + 2 + 4 + 1 = 8.

Example 2:

Input:

s = "aaaaaaaaaa"

Output:

55

Constraints:

1 <= s.length <= 1000

s[i]

consists of only lowercase English letters.

Code Snippets

C++:

```
class Solution {
public:
int countLetters(string s) {

}
};
```

Java:

```
class Solution {
public int countLetters(String s) {

}
}
```

Python3:

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

Python:

```
class Solution(object):
def countLetters(self, s):
"""
:type s: str
:rtype: int
"""
```

JavaScript:

```
/**
* @param {string} s
* @return {number}
*/
var countLetters = function(s) {

};
```

TypeScript:

```
function countLetters(s: string): number {

};
```

C#:

```
public class Solution {
public int CountLetters(string s) {

}
}
```

C:

```
int countLetters(char* s) {

}
```

Go:

```
func countLetters(s string) int {

}
```

Kotlin:

```
class Solution {
fun countLetters(s: String): Int {

}
}
```

Swift:

```
class Solution {
func countLetters(_ s: String) -> Int {

}
}
```

Rust:

```
impl Solution {
pub fn count_letters(s: String) -> i32 {

}
}
```

Ruby:

```
# @param {String} s
# @return {Integer}
def count_letters(s)

end
```

PHP:

```
class Solution {

/**
```

```
* @param String $s
* @return Integer
*/
function countLetters($s) {

}
}
```

Dart:

```
class Solution {
int countLetters(String s) {

}
}
```

Scala:

```
object Solution {
def countLetters(s: String): Int = {

}
}
```

Elixir:

```
defmodule Solution do
@spec count_letters(s :: String.t) :: integer
def count_letters(s) do

end
end
```

Erlang:

```
-spec count_letters(S :: unicode:unicode_binary()) -> integer().
count_letters(S) ->
.
```

Racket:

```
(define/contract (count-letters s)
(-> string? exact-integer?)
)
```

Solutions

C++ Solution:

```
/*
* Problem: Count Substrings with Only One Distinct Letter
* Difficulty: Easy
* Tags: string, tree, math
*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(h) for recursion stack where h is height
*/

class Solution {
public:
int countLetters(string s) {

}
};
```

Java Solution:

```
/**
* Problem: Count Substrings with Only One Distinct Letter
* Difficulty: Easy
* Tags: string, tree, math
*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(h) for recursion stack where h is height
*/

class Solution {
public int countLetters(String s) {

}
```

```
}
```

Python3 Solution:

```
"""
Problem: Count Substrings with Only One Distinct Letter
Difficulty: Easy
Tags: string, tree, math

Approach: String manipulation with hash map or two pointers
Time Complexity: O(n) or O(n log n)
Space Complexity: O(h) for recursion stack where h is height
"""

class Solution:
def countLetters(self, s: str) -> int:
# TODO: Implement optimized solution
pass
```

Python Solution:

```
class Solution(object):
def countLetters(self, s):
"""
:type s: str
:rtype: int
"""
```

JavaScript Solution:

```
/**
* Problem: Count Substrings with Only One Distinct Letter
* Difficulty: Easy
* Tags: string, tree, math
*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(h) for recursion stack where h is height
*/

/**
```

```
* @param {string} s
* @return {number}
*/
var countLetters = function(s) {

};
```

TypeScript Solution:

```
/**
* Problem: Count Substrings with Only One Distinct Letter
* Difficulty: Easy
* Tags: string, tree, math
*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(h) for recursion stack where h is height
*/

function countLetters(s: string): number {

};
```

C# Solution:

```
/*
* Problem: Count Substrings with Only One Distinct Letter
* Difficulty: Easy
* Tags: string, tree, math
*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(h) for recursion stack where h is height
*/

public class Solution {
public int CountLetters(string s) {

}
}
```

C Solution:

```
/*
* Problem: Count Substrings with Only One Distinct Letter
* Difficulty: Easy
* Tags: string, tree, math
*
* Approach: String manipulation with hash map or two pointers
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(h) for recursion stack where h is height
*/

int countLetters(char* s) {

}
```

Go Solution:

```
// Problem: Count Substrings with Only One Distinct Letter
// Difficulty: Easy
// Tags: string, tree, math
//
// Approach: String manipulation with hash map or two pointers
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(h) for recursion stack where h is height

func countLetters(s string) int {

}
```

Kotlin Solution:

```
class Solution {
fun countLetters(s: String): Int {

}
}
```

Swift Solution:

```
class Solution {
func countLetters(_ s: String) -> Int {
```

```
}
}
```

Rust Solution:

```
// Problem: Count Substrings with Only One Distinct Letter
// Difficulty: Easy
// Tags: string, tree, math
//
// Approach: String manipulation with hash map or two pointers
// Time Complexity: O(n) or O(n log n)
// Space Complexity: O(h) for recursion stack where h is height

impl Solution {
pub fn count_letters(s: String) -> i32 {

}
}
```

Ruby Solution:

```
# @param {String} s
# @return {Integer}
def count_letters(s)

end
```

PHP Solution:

```
class Solution {

/**
* @param String $s
* @return Integer
*/
function countLetters($s) {

}
}
```

Dart Solution:

```
class Solution {
int countLetters(String s) {

}
}
```

Scala Solution:

```
object Solution {
def countLetters(s: String): Int = {

}
}
```

Elixir Solution:

```
defmodule Solution do
@spec count_letters(s :: String.t) :: integer
def count_letters(s) do

end
end
```

Erlang Solution:

```
-spec count_letters(S :: unicode:unicode_binary()) -> integer().
count_letters(S) ->
.
```

Racket Solution:

```
(define/contract (count-letters s)
(-> string? exact-integer?)
)
```