

Problem 921: Minimum Add to Make Parentheses Valid

Problem Information

Difficulty: Medium

Acceptance Rate: 74.52%

Paid Only: No

Tags: String, Stack, Greedy

Problem Description

A parentheses string is valid if and only if:

- * It is the empty string,
- * It can be written as `AB` (`A` concatenated with `B`), where `A` and `B` are valid strings, or
- * It can be written as `(A)`, where `A` is a valid string.

You are given a parentheses string `s`. In one move, you can insert a parenthesis at any position of the string.

- * For example, if `s = "()())"`, you can insert an opening parenthesis to be `"(**(**)))"` or a closing parenthesis to be `"(())**(**))"`.

Return the minimum number of moves required to make `s` valid.

Example 1:

Input: `s = "()())"` **Output:** 1

Example 2:

Input: `s = "(((("` **Output:** 3

Constraints:

- * `1 <= s.length <= 1000`
- * `s[i]` is either `'('` or `')'`.

Code Snippets

C++:

```
class Solution {  
public:  
    int minAddToMakeValid(string s) {  
  
    }  
};
```

Java:

```
class Solution {  
    public int minAddToMakeValid(String s) {  
  
    }  
}
```

Python3:

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