最长有效括号

https://github.com/sangjianshun/Master-School/blob/master/longestValidParentheses.py

- 问题描述

s: “(( )”

2

s: “( )) ( ) (( )))”

6

最长有效括号

问题求解：动态规划

dp[i]:s[0:i+1]中包含s[i]的最长有效括号数

s[1-1-0]==“(”: dp[1]=dp[0]+2

s: “( )) ( ) (( )))”

dp 0 2

s[2-1-2]越界

s: “( )) ( ) (( )))”

0 2 0

s[4-1-0]==“(”: dp[4]=dp[3]+2

s: “( )) ( ) (( )))”

0 2 0 0 2

s[7-1-0]==“(”: dp[7]=dp[6]+2

s: “( )) ( ) (( )))”

0 2 0 0 2 0 0 2

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- 问题求解：动态规划

s[8-1-2]==“(”: dp[8]=dp[7]+2=4
But dp[4]=2>0: dp[8]=dp[8]+dp[4]=6

s: “ ( )) ( ) (( )))”

0	2	0	0	2	0	0	2	6	

s[9-1-6]!=“(”: dp[9]=0

s: “ ( )) ( ) (( )))”

0	2	0	0	2	0	0	2	6	0

```
if s[i] == ")":
    if i-1-dp[i-1]>=0 and s[i-1-dp[i-1]] =="(":
        dp[i] = dp[i-1] +2
         if i- dp[i] >0:
             dp[i] += dp[i-dp[i]]
    else: dp[i] =0
else: dp[i] = 0
```