





Counting Valleys ☆

X Your Counting Valleys submission got 15.00 points. Share Tweet Try the next challenge

Problem Submissions Leaderboard Editorial 🖰

Gary is an avid hiker. He tracks his hikes meticulously, paying close attention to small details like topography. During his last hike he took exactly nsteps. For every step he took, he noted if it was an uphill, U, or a downhill, D step. Gary's hikes start and end at sea level and each step up or down represents a **1** unit change in altitude. We define the following terms:

- A mountain is a sequence of consecutive steps above sea level, starting with a step up from sea level and ending with a step down to sea level.
- A valley is a sequence of consecutive steps below sea level, starting with a step down from sea level and ending with a step up to sea level.

Given Gary's sequence of *up* and *down* steps during his last hike, find and print the number of *valleys* he walked through.

For example, if Gary's path is s = [DDUUUUUDD], he first enters a valley 2 units deep. Then he climbs out an up onto a mountain 2 units high. Finally, he returns to sea level and ends his hike.

Function Description

Complete the countingValleys function in the editor below. It must return an integer that denotes the number of valleys Gary traversed. countingValleys has the following parameter(s):

- n: the number of steps Gary takes
- s: a string describing his path

Input Format

The first line contains an integer n, the number of steps in Gary's hike.

The second line contains a single string \mathbf{s} , of \mathbf{n} characters that describe his path.

Constraints

- $2 \le n \le 10^6$
- $s[i] \in \{UD\}$

Output Format

Print a single integer that denotes the number of valleys Gary walked through during his hike.

Sample Input

UDDDUDUU



```
Java 7
     import java.io.*;
1
     import java.math.*;
2
3
     import java.security.*;
     import java.text.*;
4
5
     import java.util.*;
     import java.util.concurrent.*;
6
7
     import java.util.regex.*;
8
     public class Solution {
9
10
11
         // Complete the countingValleys function below.
         static int countingValleys(int n, String s) {
12
13
             int valleys=0;
14
             int level=0;
15
             for(char c: s.toCharArray())
16
17
18
                  if(c=='U')
19
                     ++level;
20
                 if(c=='D')
21
                      --level;
22
                 if(level==0 && c=='U')
23
                     valleys++;
24
25
         return valleys;
26
27
28
         }
29
30
         private static final Scanner scanner = new Scanner(System.in);
31
32
         public static void main(String[] args) throws IOException {
             BufferedWriter bufferedWriter = new BufferedWriter(new FileWriter(System.getenv
33
     ("OUTPUT_PATH")));
34
35
             int n = scanner.nextInt();
36
             scanner.skip("(\r\n|[\n\r\u2028\u2029\u0085])?");
37
                                                                                                         Line: 22 Col: 34
```

Run Code

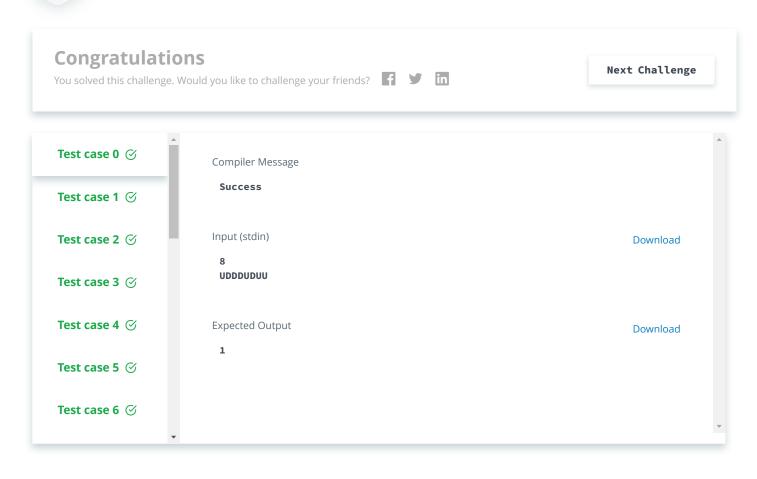


Upivau coue as riie

You have earned 15.00 points!

These points will also count towards your progress in the Problem Solving Badge.





25/30

Contest Calendar | Blog | Scoring | Environment | FAQ | About Us | Support | Careers | Terms Of Service | Privacy Policy | Request a Feature

