Problem 2086: Minimum Number of Food Buckets to Feed the Hamsters

Problem Information

Difficulty: Medium
Acceptance Rate: 47.63%
Paid Only: No
Tags: String, Dynamic Programming, Greedy

Problem Description

You are given a **0-indexed** string `hamsters` where `hamsters[i]` is either:

* `'H'` indicating that there is a hamster at index `i`, or * `'.'` indicating that index `i` is empty.

You will add some number of food buckets at the empty indices in order to feed the hamsters. A hamster can be fed if there is at least one food bucket to its left or to its right. More formally, a hamster at index `i` can be fed if you place a food bucket at index `i - 1` **and/or** at index `i + 1`.

Return _the minimum number of food buckets you should**place at empty indices** to feed all the hamsters or _`-1` _if it is impossible to feed all of them_.

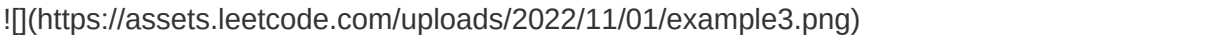
Example 1:

Input: hamsters = "H..H" **Output:** 2 **Explanation:** We place two food buckets at indices 1 and 2. It can be shown that if we place only one food bucket, one of the hamsters will not be fed.

Example 2:

Input: hamsters = ".H.H." **Output:** 1 **Explanation:** We place one food bucket at index 2.

Example 3:



Input: hamsters = ".HHH." **Output:** -1 **Explanation:** If we place a food bucket at every empty index as shown, the hamster at index 2 will not be able to eat.

Constraints:

* `1 <= hamsters.length <= 105` * `hamsters[i]` is either`'H'` or `'.'`.

Code Snippets

C++:

```
class Solution {
public:
int minimumBuckets(string hamsters) {

}
};
```

Java:

```
class Solution {
public int minimumBuckets(String hamsters) {

}
}
```

Python3:

```
class Solution:
def minimumBuckets(self, hamsters: str) -> int:
```