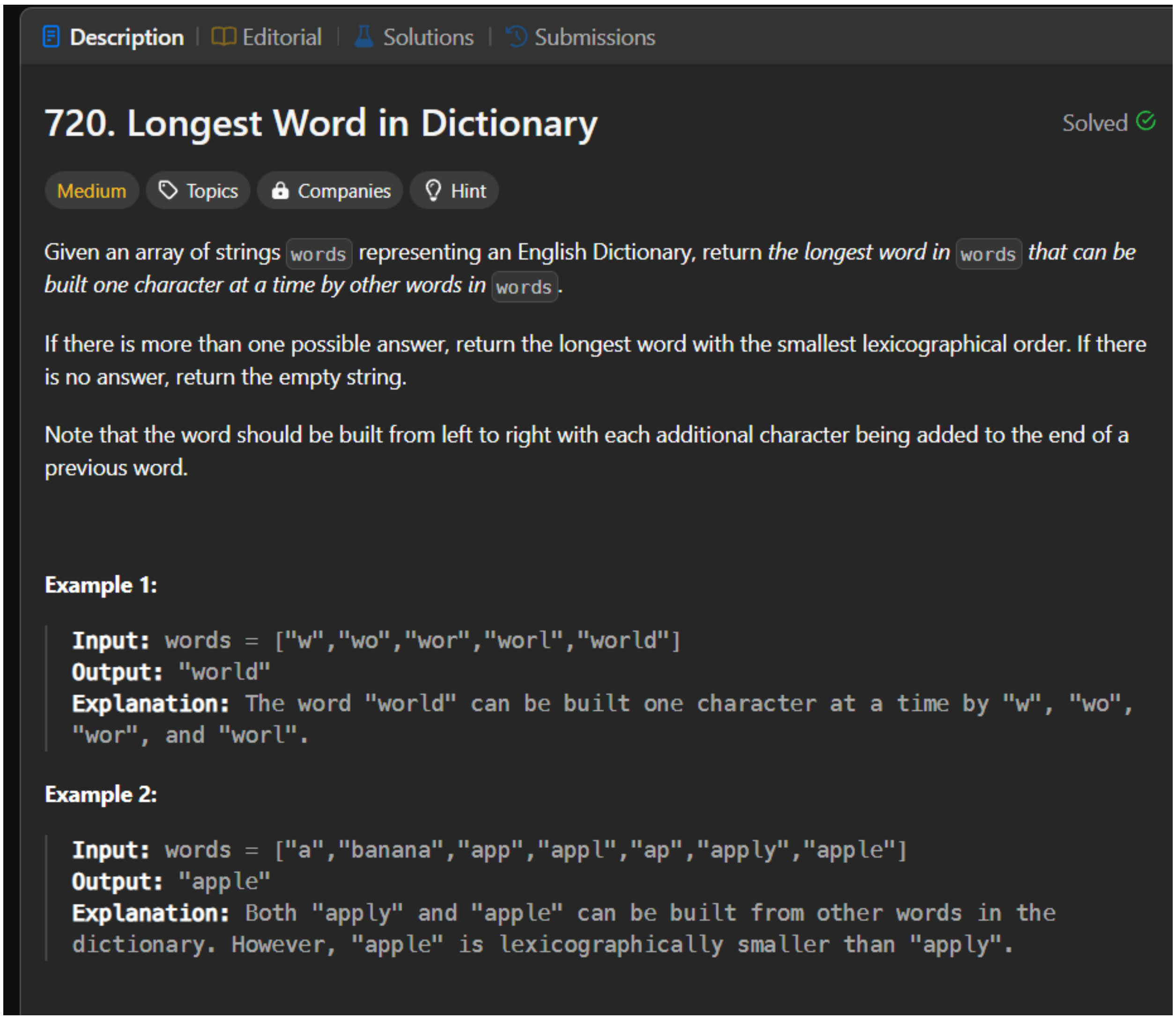

720. Longest Word in Dictionary

Solved

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Given an array of strings `words` representing an English Dictionary, return *the longest word in* `words` *that can be built one character at a time by other words in* `words`.

If there is more than one possible answer, return the longest word with the smallest lexicographical order. If there is no answer, return the empty string.

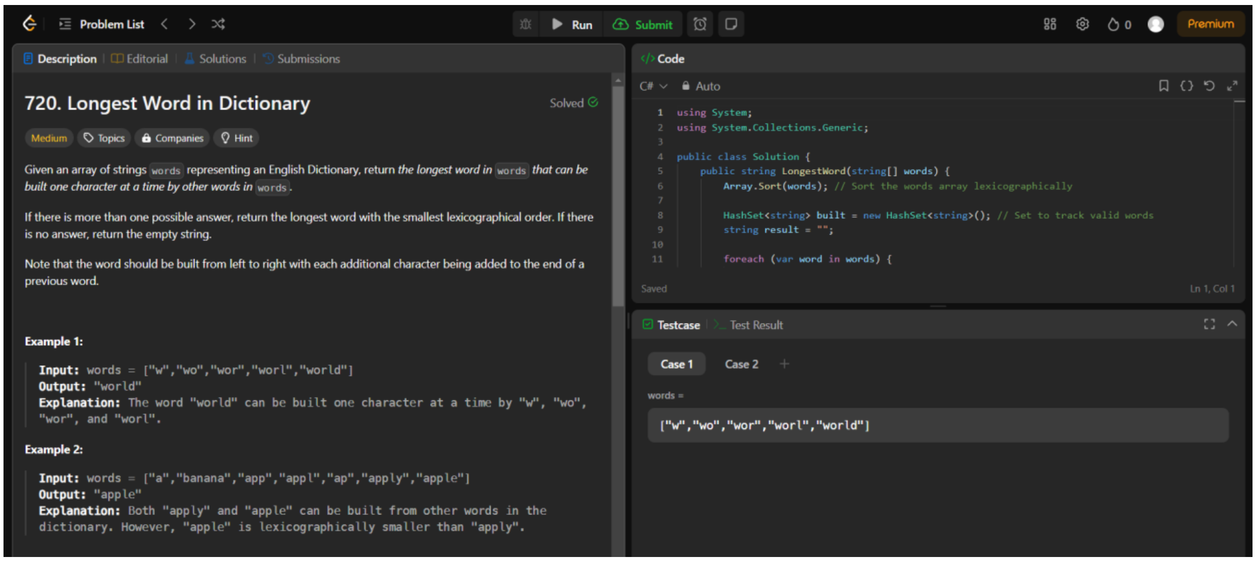
Note that the word should be built from left to right with each additional character being added to the end of a previous word.

Example 1:

```
Input: words = ["w","wo","wor","worl","world"]
Output: "world"
Explanation: The word "world" can be built one character at a time by "w", "wo",
"wor", and "worl".
```

Example 2:

```
Input: words = ["a","banana","app","appl","ap","apply","apple"]
Output: "apple"
Explanation: Both "apply" and "apple" can be built from other words in the
dictionary. However, "apple" is lexicographically smaller than "apply".
```



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Explanation: The word "world" can be built one character at a time by "w", "wo", "wor", and "worl".

Example 2:

Input: words = ["a","banana","app","appl","ap","apply","apple"]
Output: "apple"
Explanation: Both "apply" and "apple" can be built from other words in the dictionary. However, "apple" is lexicographically smaller than "apply".

```
using System;
using System.Collections.Generic;

public class Solution {
    public string LongestWord(string[] words) {
        Array.Sort(words); // Sort the words array lexicographically

        HashSet<string> built = new HashSet<string>(); // Set to track valid words
        string result = "";

        foreach (var word in words) {
```

Testcase

words =

```
["w","wo","wor","worl","world"]
```

Код:

```
using System;
using System.Collections.Generic;

public class Solution
{
    public string LongestWord(string[] words)
    {
        Array.Sort(words); // Sort the words array lexicographically

        HashSet<string> built = new HashSet<string>(); // Set to track valid words
        string result = "";

        foreach (var word in words)
        {
            if (word.Length == 1 || built.Contains(word.Substring(0, word.Length -
1)))
            {
                built.Add(word); // Add the current word to the set
                if (word.Length > result.Length)
                {
                    result = word;
                }
            }
        }

        return result;
    }
}
```