

Unknown Title



Description

Description

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Code

Code

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Testcase

Testcase

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Test Result

Test Result

✿

Leet

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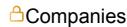
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[30. Substring with Concatenation of All Words](#)

Hard



Topics



You are given a string s and an array of strings words . All the strings of words are of **the same length**.

A **concatenated string** is a string that exactly contains all the strings of any permutation of words concatenated.

- For example, if $\text{words} = ["ab", "cd", "ef"]$, then "abcdef", "abefcd", "cdabef", "cdefab", "efabcd", and "efcdab" are all concatenated strings. "acdbef" is not a concatenated string because it is not the concatenation of any permutation of words .

Return an array of *the starting indices* of all the concatenated substrings in s . You can return the answer in **any order**.

Example 1:

Input: $s = \text{"barfoothefoobarman"}$, $\text{words} = [\text{"foo"}, \text{"bar"}]$

Output: [0,9]

Explanation:

The substring starting at 0 is "barfoo". It is the concatenation of ["bar", "foo"] which is a permutation of words .

The substring starting at 9 is "foobar". It is the concatenation of ["foo", "bar"] which is a permutation of words .

Example 2:

Input: $s = \text{"wordgoodgoodgoodbestword"}$, $\text{words} = [\text{"word"}, \text{"good"}, \text{"best"}, \text{"word"}]$

Output: []

Explanation:

There is no concatenated substring.

Example 3:

Input: $s = \text{"barfoofoobarthefoobarman"}$, $\text{words} = [\text{"bar"}, \text{"foo"}, \text{"the"}]$

Output: [6,9,12]

Explanation:

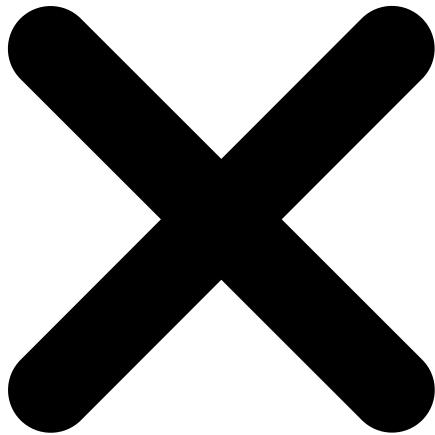
The substring starting at 6 is "foobarthe". It is the concatenation of ["foo", "bar", "the"].

The substring starting at 9 is "barthefoo". It is the concatenation of ["bar", "the", "foo"].

The substring starting at 12 is "thefoobar". It is the concatenation of ["the", "foo", "bar"].

Constraints:

- $1 \leq s.\text{length} \leq 10^4$
- $1 \leq \text{words}.\text{length} \leq 5000$
- $1 \leq \text{words}[i].\text{length} \leq 30$
- s and $\text{words}[i]$ consist of lowercase English letters.



Seen this question in a real interview before?

1/5

Yes

No

Accepted

637,776/1.9M

Acceptance Rate

33.5%



Companies



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[Minimum Window Substring](#)

Hard



Discussion (270)



1. Please don't post **any solutions** in this discussion.

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[cornellouis](#)

Jun 06, 2018

I thought the question assumed all words were the same length?

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Dec 14, 2022

Can LeetCode start adding the efficiency requirements to all the Description sections? It would make problem solving much less tedious

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[Dany__Guty](#)



Feb 12, 2023

This will save you: you need to increment the window one by one, there's no way to pass the testcases in increments in the window of $n = \text{words}[0].size()$

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leolin479

Dec 23, 2021

For the example case

Input: s = "wordgoodgoodgoodbestword", words = ["word", "good", "best", "word"]

Output: []

The standard answer was "output: [8]", which preventing my code to be submitted.

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darcylimx

Dec 30, 2019

Ignoring the key information(all the words are the SAME length) will cause exponential time complexity.

Otherwise, it is just linear time to check a match.

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Igor

Nov 27, 2023

Additional description point:

The words can overlap, like in this example from the test cases:

s =

"lingmindraboofooowingdingbarrwingmonkeypoundcake"

words =

["foo", "barr", "wing", "ding", "wing"]

Please, add this to the description, it is not clear

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Yash-Dev-Solanki
Geo

Aug 16, 2023

There is a problem with the last testcase. The parameters seem to be missing.

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```
class Solution {  
    public List<Integer> findSubstring(String s, String[] words) {
```

```
    }  
}
```



Saved

Ln 1, Col 1

```
s =  
"barfoothefoobarman"  
words =  
["foo", "bar"]  
9  
1
```

```
2
3
4
5
6
>
"barfoothefoobarman"
["foo", "bar"]
"wordgoodgoodgoodbestword"
["word", "good", "best", "word"]
"barfoofoobarthefoobarman"
["bar", "foo", "the"]
</>
Source
?
```



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