

737. Sentence Similarity II Premium

Medium Topics Companies Hint

We can represent a sentence as an array of words, for example, the sentence "I am happy with leetcode" can be represented as `arr = ["I","am",happy","with","leetcode"]`.

Given two sentences `sentence1` and `sentence2` each represented as a string array and given an array of string pairs `similarPairs` where `similarPairs[i] = [xi, yi]` indicates that the two words `xi` and `yi` are similar.

Return `true` if `sentence1` and `sentence2` are similar, or `false` if they are not similar.

Two sentences are similar if:

- They have **the same length** (i.e., the same number of words)
- `sentence1[i]` and `sentence2[i]` are similar.

Notice that a word is always similar to itself, also notice that the similarity relation is transitive. For example, if the words `a` and `b` are similar, and the words `b` and `c` are similar, then `a` and `c` are **similar**.

Example 1:

Input: `sentence1 = ["great","acting","skills"], sentence2 = ["fine","drama","talent"], similarPairs = [["great","good"],["fine","good"],["drama","acting"],["skills","talent"]]`

Output: `true`

Explanation: The two sentences have the same length and each word `i` of `sentence1` is also similar to the corresponding word in `sentence2`.

Example 2:

Input: `sentence1 = ["I","love","leetcode"], sentence2 = ["I","love","onepiece"], similarPairs = [["manga","onepiece"],["platform","anime"],["leetcode","platform"],["anime","manga"]]`

Output: `true`

Explanation: "leetcode" → "platform" → "anime" → "manga" → "onepiece". Since "leetcode" is similar to "onepiece" and the first two words are the same, the two sentences are similar.

Example 3:

Input: `sentence1 = ["I","love","leetcode"], sentence2 = ["I","love","onepiece"], similarPairs = [["manga","hunterXhunter"],["platform","anime"],["leetcode","platform"],["anime","manga"]]`

Output: `false`

Explanation: "leetcode" is not similar to "onepiece".

Constraints:

- `1 <= sentence1.length, sentence2.length <= 1000`
- `1 <= sentence1[i].length, sentence2[i].length <= 20`
- `sentence1[i]` and `sentence2[i]` consist of lower-case and upper-case English letters.
- `0 <= similarPairs.length <= 2000`
- `similarPairs[i].length == 2`
- `1 <= xi.length, yi.length <= 20`
- `xi` and `yi` consist of English letters.

Seen this question in a real interview before? 1/5

Yes No

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Hint 1

Consider the graphs where each pair in "pairs" is an edge. Two words are similar if they are the same, or are in the same connected component of this graph.

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