Given a string s and a dictionary of strings wordDict, add spaces in s to construct a sentence where each word is a valid dictionary word. Return all such possible sentences in **any order**.

**Note** that the same word in the dictionary may be reused multiple times in the segmentation.

**Example 1:**

Input: s = "catsanddog", wordDict = ["cat","cats","and","sand","dog"]  
Output: ["cats and dog","cat sand dog"]

**Example 2:**

Input: s = "pineapplepenapple", wordDict = ["apple","pen","applepen","pine","pineapple"]  
Output: ["pine apple pen apple","pineapple pen apple","pine applepen apple"]  
Explanation: Note that you are allowed to reuse a dictionary word.

**Example 3:**

Input: s = "catsandog", wordDict = ["cats","dog","sand","and","cat"]  
Output: []

**Constraints:**

* 1 <= s.length <= 20
* 1 <= wordDict.length <= 1000
* 1 <= wordDict[i].length <= 10
* s and wordDict[i] consist of only lowercase English letters.
* All the strings of wordDict are **unique**.
* Input is generated in a way that the length of the answer doesn't exceed 105.