ref=nb npl)





5947. Find All Possible Recipes from Given Supplies

My Submissions (/contest/biweekly-contest-68/problems/find-all-possible-recipes-from-given-supplies/submissions/)

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You have information about n different recipes. You are given a string array recipes and a 2D string array $ingredients \ . \ The \ i^{th} \ recipe \ has \ the \ name \ recipes [i] \ , \ and \ you \ can \ \textbf{create} \ it \ if \ you \ have \ \textbf{all} \ the \ needed$ ingredients from ingredients [i]. Ingredients to a recipe may need to be created from other recipes, i.e., ingredients[i] may contain a string that is in recipes.

You are also given a string array supplies containing all the ingredients that you initially have, and you have an infinite supply of all of them.

Return a list of all the recipes that you can create. You may return the answer in any order.

Note that two recipes may contain each other in their ingredients.

User Accepted:	1114
User Tried:	2837
Total Accepted:	1141
Total Submissions:	6474
Difficulty:	Medium

Example 1:

```
Input: recipes = ["bread"], ingredients = [["yeast","flour"]], supplies = ["yeast","flour","corn"]
Output: ["bread"]
Explanation:
We can create "bread" since we have the ingredients "yeast" and "flour".
```

Example 2:

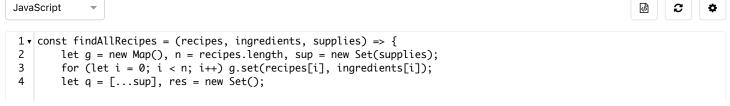
```
Input: recipes = ["bread", "sandwich"], ingredients = [["yeast", "flour"], ["bread", "meat"]], supplies = ["yeast", "flour"]
Output: ["bread", "sandwich"]
Explanation:
We can create "bread" since we have the ingredients "yeast" and "flour".
We can create "sandwich" since we have the ingredient "meat" and can create the ingredient "bread".
```

Example 3:

```
Input: recipes = ["bread", "sandwich", "burger"], ingredients = [["yeast", "flour"], ["bread", "meat"], ["sandwich", "meat"]
Output: ["bread","sandwich","burger"]
Explanation:
We can create "bread" since we have the ingredients "yeast" and "flour".
We can create "sandwich" since we have the ingredient "meat" and can create the ingredient "bread".
We can create "burger" since we have the ingredient "meat" and can create the ingredients "bread" and "sandwich".
```

Constraints:

- n == recipes.length == ingredients.length
- 1 <= n <= 100
- 1 <= ingredients[i].length, supplies.length <= 100
- 1 <= recipes[i].length, ingredients[i][j].length, supplies[k].length <= 10
- recipes[i], ingredients[i][j], and supplies[k] consist only of lowercase English letters.
- All the values of recipes and supplies combined are unique.
- Each ingredients[i] does not contain any duplicate values.



```
while (q.length) {
 5 ₹
 6
             operate(g, sup);
7
             let cur = q.shift(), next = g.get(cur) || [];
8 ▼
             for (const child of next) {
                 if (sup.has(child)) continue;
9
                 sup.add(child);
10
11
                 q.push(child);
12
13
        }
14 ▼
        for (const e of sup) {
15
             if (g.has(e)) res.add(e);
16
17
        return [...res];
18
    };
19
20 \mathbf{v} const operate = (g, sup) \Rightarrow \{
21 ▼
        for (const [s, a] of g) {
22
             if (canMake(a, sup)) sup.add(s);
23
    };
24
25
26 v const canMake = (ingredient, sup) ⇒ {
        for (const e of ingredient) {
27 ▼
28
             if (!sup.has(e)) return false;
29
30
        return true;
31
   };
```

☐ Custom Testcase

Use Example Testcases

Submission Result: Accepted (/submissions/detail/606953766/) 2

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