

Problem 249: Group Shifted Strings

Problem Information

Difficulty: Medium

Acceptance Rate: 67.61%

Paid Only: Yes

Tags: Array, Hash Table, String

Problem Description

Perform the following shift operations on a string:

* **Right shift** : Replace every letter with the **successive** letter of the English alphabet, where 'z' is replaced by 'a'. For example, `"abc"` can be right-shifted to `"bcd"` or `"xyz"` can be right-shifted to `"yza"`. * **Left shift** : Replace every letter with the **preceding** letter of the English alphabet, where 'a' is replaced by 'z'. For example, `"bcd"` can be left-shifted to `"abc"` or `"yza"` can be left-shifted to `"xyz"`.

We can keep shifting the string in both directions to form an **endless** **shifting sequence**.

* For example, shift `"abc"` to form the sequence: `... <-> "abc" <-> "bcd" <-> ... <-> "xyz" <-> "yza" <-> ...`. `"zab" <-> "abc" <-> ...`

You are given an array of strings `strings`, group together all `strings[i]` that belong to the same shifting sequence. You may return the answer in **any order**.

Example 1:

Input: `strings = ["abc","bcd","acef","xyz","az","ba","a","z"]`

Output: `[["acef"],["a","z"],["abc","bcd","xyz"],["az","ba"]]`

Example 2:

Input: `strings = ["a"]`

****Output:**** `[["a"]]`

****Constraints:****

`*`1` <= strings.length <= 200` *`1` <= strings[i].length <= 50` *`strings[i]` consists of lowercase English letters.`

Code Snippets

C++:

```
class Solution {
public:
    vector<vector<string>> groupStrings(vector<string>& strings) {

    }
};
```

Java:

```
class Solution {
    public List<List<String>> groupStrings(String[] strings) {

    }
}
```

Python3:

```
class Solution:
    def groupStrings(self, strings: List[str]) -> List[List[str]]:
```