链滴

[每日 LeetCode] 929. Unique Email Addresses

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Description:

Every email consists of a local name and a domain name, separated by the @ sign.

For example, in alice@leetcode.com , alice is the local name, andleetcode.comis the domain ame.

Besides lowercase letters, these emails may contain '.' s or '+' s.

If you add periods ('.') between some characters in the **local name** part of an email address, mail sent there will be forwarded to the same address without dots in the local name. For ex mple, "alice.z@leetcode.com" and "alicez@leetcode.com" forward to the same email address. (Note that this rule does not apply for domain names.)

If you add a plus ('+') in the **local name** , everything after the first plus sign will be **ignored** . This allows certain emails to be filtered, for example m.y+name@email.com will be forwarded to my@email.com. (Again, this rule does not apply for domain names.)

It is possible to use both of these rules at the same time.

Given a list of emails, we send one email to each address in the list. How many different addr sses actually receive mails?

Example 1:

Input: ["test.email+alex@leetcode.com","test.e.mail+bob.cathy@leetcode.com","testemail+da id@lee.tcode.com"]
Output: 2
Explanation: "testemail@leetcode.com" and "testemail@lee.tcode.com" actually receive mails

Note:

- 1 <= emails[i].length <= 100
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- Each emails[i]contains exactly one'@'character.
- All local and domain names are non-empty.
- Local names do not start with a '+'character.

思路：本题要求判断字符串数组中邮箱地址的唯一性。需要注意的是 . 和 + 的特殊意义，可以遍历em ils中的每个邮箱地址，然后依次进行如下操作：

- 分别保存数组元素中的用户名和域名；
- 从前往后遍历用户名的每个字符，如果遇到'+'，则直接截断；如果遇到'.'，则忽略该字符；
- 将新用户名和域名重新组合，再插入哈希表中

最终哈希表的大小就是答案。

C++代码

```
class Solution {
public:
    int numUniqueEmails(vector<string>& emails) {
        unordered_set<string> S;
        for (auto email : emails)
        {
            string local, domain;
            int k = 0;
            while (email[k] != '@') k ++ ;
            local = email.substr(0, k);
            domain = email.substr(k + 1);
            string newLocal;
            for (auto c : local)
            {
                if (c == '+') break;
                if (c != '.') newLocal += c;
            }
            S.insert(newLocal + '@' + domain);
        }
        return S.size();
    }
};
```

运行时间：32ms

运行内存：14.4M