Problem 831: Masking Personal Information

Problem Information

Difficulty: Medium
Acceptance Rate: 51.48%
Paid Only: No
Tags: String

Problem Description

You are given a personal information string `s`, representing either an **email address** or a **phone number**. Return _the**masked** personal information using the below rules_.

**Email address:**

An email address is:

* A **name** consisting of uppercase and lowercase English letters, followed by * The `'@'` symbol, followed by * The **domain** consisting of uppercase and lowercase English letters with a dot `'.'` somewhere in the middle (not the first or last character).

To mask an email:

* The uppercase letters in the **name** and **domain** must be converted to lowercase letters. * The middle letters of the **name** (i.e., all but the first and last letters) must be replaced by 5 asterisks `"*****"`.

**Phone number:**

A phone number is formatted as follows:

* The phone number contains 10-13 digits. * The last 10 digits make up the **local number**. * The remaining 0-3 digits, in the beginning, make up the **country code**. * **Separation characters** from the set `{'+', '-', '(', ')', ' '}` separate the above digits in some way.

To mask a phone number:

* Remove all **separation characters**. * The masked phone number should have the form: * `"***-***-XXXX"` if the country code has 0 digits. * `"+*-***-***-XXXX"` if the country code has 1 digit. * `"+**-***-***-XXXX"` if the country code has 2 digits. * `"+***-***-***-XXXX"` if the country code has 3 digits. * `"XXXX"` is the last 4 digits of the **local number**.

Example 1:

Input: s = "LeetCode@LeetCode.com" **Output:** "l*****e@leetcode.com" **Explanation:** s is an email address. The name and domain are converted to lowercase, and the middle of the name is replaced by 5 asterisks.

Example 2:

Input: s = "AB@qq.com" **Output:** "a*****b@qq.com" **Explanation:** s is an email address. The name and domain are converted to lowercase, and the middle of the name is replaced by 5 asterisks. Note that even though "ab" is 2 characters, it still must have 5 asterisks in the middle.

Example 3:

Input: s = "1(234)567-890" **Output:** "***-***-7890" **Explanation:** s is a phone number. There are 10 digits, so the local number is 10 digits and the country code is 0 digits. Thus, the resulting masked number is "***-***-7890".

Constraints:

* `s` is either a **valid** email or a phone number. * If `s` is an email: * `8 <= s.length <= 40` * `s` consists of uppercase and lowercase English letters and exactly one `'@'` symbol and `'.'` symbol. * If `s` is a phone number: * `10 <= s.length <= 20` * `s` consists of digits, spaces, and the symbols `'('`, `')'`, `'-'`, and `'+'`.

Code Snippets

C++:

```
class Solution {
public:
string maskPII(string s) {
```

```
}
};
```

Java:

```
class Solution {
public String maskPII(String s) {

}
}
```

Python3:

```
class Solution:
def maskPII(self, s: str) -> str:
```