

93. Restore IP Addresses

Description

A **valid IP address** consists of exactly four integers separated by single dots. Each integer is between `0` and `255` (**inclusive**) and cannot have leading zeros.

- For example, `"0.1.2.201"` and `"192.168.1.1"` are **valid** IP addresses, but `"0.011.255.245"` , `"192.168.1.312"` and `"192.168@1.1"` are **invalid** IP addresses.

Given a string `s` containing only digits, return *all possible valid IP addresses that can be formed by inserting dots into* `s` . You are **not** allowed to reorder or remove any digits in `s` . You may return the valid IP addresses in **any** order.

Example 1:

Input: `s = "25525511135"`

Output: `["255.255.11.135", "255.255.111.35"]`

Example 2:

Input: `s = "0000"`

Output: `["0.0.0.0"]`

Example 3:

Input: `s = "101023"`

Output: `["1.0.10.23", "1.0.102.3", "10.1.0.23", "10.10.2.3", "101.0.2.3"]`

Constraints:

- `1 <= s.length <= 20`
- `s` consists of digits only.

