

93. Restore IP Addresses

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:

- $1 \leq s.length \leq 20$
- s consists of digits only.