93. Restore IP Addresses

题目描述: https://leetcode.com/problems/restore-ip-addresses/

给定一个字符串，求这个字符串分割可得的ip个数
例如:

```
Given "25525511135",
return ["255.255.11.135", "255.255.111.35"].
```

解题思路:

回溯，排列组合模板

代码:

```cpp
class Solution {
public:
    void getIP(string s, vector<string> &res, string now, int pos, int num){
        if(pos == s.size() && num == 4){
            res.push_back(now.substr(1, now.size()-1));
            return;
        }
        else if(pos == s.size())
            return ;
        else if(num == 4)
            return ;
        if (s.at(pos) == '0') {
            now = now + ".0";
            getIP(s, res, now, pos + 1, num + 1);
        }
        else {
            for(int i = 1; pos + i - 1 < s.size() && i <= 3; i++){
                string t = s.substr(pos, i);
                if(std::stoi(t) <= 255){
                    int nowLen = now.size();
                    now = now + "." + t;
                    getIP(s, res, now, pos+i, num+1);
                    now.erase(nowLen, 1+i);
                }
            }
        }
    }
    vector<string> restoreIpAddresses(string s) {
        vector<string> res;
        string now;
        getIP(s, res, now, 0, 0);
        return res;
    }
};
```