## 17. Letter Combinations of a Phone Number

题目描述: <u>https://leetcode.com/problems/letter-combinations-of-a-phone-number/</u>

手机的九键键盘每个数字都代表着几个字母,给定一串输入数字串,判断这串数字能组成多少种不同的字母组合,如果有0/1等非法输入则返回[]



例如:

```
Input:Digit string "23"
Output: ["ad", "ae", "af", "bd", "be", "bf", "cd", "ce", "cf"].
```

## 解题思路:

排列组合模板

## 代码:

```
class Solution {
  public:
    void getCom(string digits, vector<string> &rep, vector<string> &res, strin
    g now, int pos){
        if(now.size() == digits.size()){
            res.push_back(now);
            return;
        }
        int c = digits.at(pos) - '0';
        for(int i = 0; i < rep[c].size(); i++){
            now.push_back(rep[c].at(i));
            getCom(digits, rep, res, now, pos+1);
            now.pop_back();
        }
}</pre>
```

```
}
vector<string> letterCombinations(string digits) {
    vector<string> rep{"", "", "abc", "def", "ghi", "jkl", "mno", "pqrs",
    "tuv", "wxyz"};
    vector<string> res;
    string now;
    if(digits.size() == 0 || digits.find("0") != std::string::npos || digits.find("1") != std::string::npos){
        return res;
    }
    getCom(digits, rep, res, now, 0);
    return res;
}
};
```