

Description

Solution

Discuss (999+)

Submissions

C++

## 17. Letter Combinations of a Phone Number

Medium

8042

602

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Given a string containing digits from 2-9 inclusive, return all possible letter combinations that the number could represent. Return the answer in **any order**.

A mapping of digit to letters (just like on the telephone buttons) is given below. Note that 1 does not map to any letters.



### Example 1:

Input: digits = "23"

Output: ["ad","ae","af","bd","be","bf","cd","ce","cf"]

### Example 2:

Input: digits = ""

Output: []

### Example 3:

Input: digits = "2"

Output: ["a","b","c"]

### Constraints:

- $0 \leq \text{digits.length} \leq 4$
- `digits[i]` is a digit in the range ['2', '9'].

```
1 class Solution {
2 public:
3
4     vector<string>
5     letterCombinations(digits) {
6         string s = digits;
7         if (s.empty()) return {};
8         int n = s.size();
9         vector<string> res;
10        res.push_back("");
11        for (int i = 0; i < n; ++i) {
12            string letters = "abcde";
13            if (s[i] == '2') letters = "abc";
14            if (s[i] == '3') letters = "def";
15            if (s[i] == '4') letters = "ghi";
16            if (s[i] == '5') letters = "jkl";
17            if (s[i] == '6') letters = "mno";
18            if (s[i] == '7') letters = "pqrs";
19            if (s[i] == '8') letters = "tuv";
20            if (s[i] == '9') letters = "wxyz";
21            vector<string> tmp;
22            for (int j = 0; j < res.size(); ++j) {
23                string word = res[j];
24                for (int k = 0; k < letters.size(); ++k) {
25                    string newWord = word + letters[k];
26                    tmp.push_back(newWord);
27                }
28            }
29            res = tmp;
30        }
31        return res;
32    }
33 }
```

Testcase Run Code F

Accepted Runtime

Your input "23"

Output ["a"

Expected ["a"

Accepted 1,014,195

Submissions 1,943,105

Problems

Pick One

&lt; Prev

17/2092

Next &gt;

Example cases

?

Run Code