# 17. Letter Combinations of a Phone Number

## SOLUTION IN JAVA

class Solution {

public List<String> letterCombinations(String digits) {

if (digits.isEmpty())

return new ArrayList<>();

List<String> ans = new ArrayList<>();

dfs(digits, 0, new StringBuilder(), ans);

return ans;

}

private static final String[] digitToLetters = {"", "", "abc", "def", "ghi",

"jkl", "mno", "pqrs", "tuv", "wxyz"};

private void dfs(String digits, int i, StringBuilder sb, List<String> ans) {

if (i == digits.length()) {

ans.add(sb.toString());

return;

}

for (final char c : digitToLetters[digits.charAt(i) - '0'].toCharArray()) {

sb.append(c);

dfs(digits, i + 1, sb, ans);

sb.deleteCharAt(sb.length() - 1);

}

}

}