

Home assignment

Software Engineer Intern

Objective

Using Java or JavaScript language, implement a solution for the task below. You have 7 days to complete the assignment. Please upload your code to GitHub and send the link back to us at Genesys.

Task

Given a string containing digits from 2-9 inclusive, return all possible letter combinations that the number(s) 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.

Constraints:

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

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"]`



Bonus tasks:

- Return the answers using an ordering algorithm of your choosing
- Cover your code with unit tests