

GetAhead - Interview Practice 5

Word Hunting

Given a 4X4 grid of letters and a dictionary, find the longest word from the dictionary that can be formed in the grid.

The rules for forming a word are:

- Start at any position on the board
- Move in any of the up to 8 directions to choose another letter
- Repeat
- Words must be at least 3 characters long
- You cannot reuse a letter in a given position in the same word.

You are given a dictionary, with two helper functions: `isWord()` to check if a word is valid and `isPrefix()` to check if a string is a prefix of some valid word.

Examples:

For the grid on the left, the longest word is **FAMES**, for the one on the right, it is **EMBOIL** (note that there might be more than one solution, for example on the left **EMBOLI** is also valid, and same length):

