Assignment 3 - Word search

Given a grid of letters and a dictionary, find all the words from the dictionary that can be formed in the grid.

The rules for forming a word:

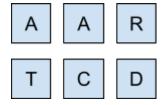
- You can start at any position.
- You can move to one of the 8 adjacent cells (horizontally/vertically/diagonally).
- You can't visit the same cell twice in the same word.

Assume you have a dictionary class with these two methods:

- isWord(string): Returns whether the given string is a valid word.
- isPrefix(string): Returns whether the given string is a prefix of at least one word in the dictionary.

Your function receives the number of rows, number of columns, a 2-dimensional array of characters (of the native char data type), and the dictionary. You should return the set of all words found.

Visual example with 2 rows, 3 columns:



The dictionary is made up of entries [CAR, CARD, CART, CAT], the list of prefixes is [C, CA, CAR, CARD, CART, CAT]. The correct output in this case would be [CAR, CARD, CAT].

Hint 1/1:

To view the hint, select the text so it will be painted: