Word Search

Try to solve the Word Search problem.

We'll cover the following

Statement

Given an $m \times n$ 2D grid of characters and `word` as a string, we need to determine if the word can be constructed from letters of **sequentially adjacent** cells. The cells are considered sequentially adjacent when they are neighbors to each other either horizontally or vertically. The function should return TRUE if the word can be constructed and FALSE otherwise.

Constraints:

- `m` $=$ `board.length`
- `n` $=$ `board[i].length`, where $0 \leq$ `i` $<$ `m`
- $1 \leq$ `m`, `n` ≤ 6
- $1 \leq$ `word.length` ≤ 15
- `board` and `word` consist of only lowercase or uppercase English letters.
- The search is not case-sensitive.

Examples

Sample example 1

Word to search: **e d u c a t i v e**

E	D	X	I	W
P	U	F	M	Q
I	C	A	T	E
M	A	L	C	A
J	T	I	V	E

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Understand the problem

Understand the problem

Let’s take a moment to make sure you've correctly understood the problem. The quiz below helps you check if you're solving the correct problem:

Word Search

1

Can we find the word *magnanimous* in the given grid?

```
[['K', 'I', 'C', 'D', 'L', 'J', 'M', 'R']
 ['V', 'M', 'S', 'P', 'C', 'F', 'A', 'G']
 ['C', 'A', 'G', 'D', 'J', 'O', 'L', 'O']
 ['Q', 'Z', 'N', 'T', 'F', 'X', 'C', 'T']
 ['R', 'L', 'A', 'N', 'I', 'R', 'G', 'D']
 ['J', 'A', 'W', 'Y', 'M', 'O', 'U', 'A']
 ['Z', 'A', 'P', 'D', 'R', 'C', 'S', 'D']
 ['Y', 'V', 'A', 'F', 'P', 'L', 'Z', 'T']]
```

A) Yes

B) No

Submit Answer

Question 1 of 2
0 attempted

Reset Quiz

Figure it out!

We have a game for you to play. Rearrange the logical building blocks to develop a clearer understanding of how to solve this problem.

Drag and drop the cards to rearrange them in the correct sequence.

Start traversing the grid from the first cell.

Call depth-first search to search for the next character of the search word in the four possible directions for each cell of the grid.

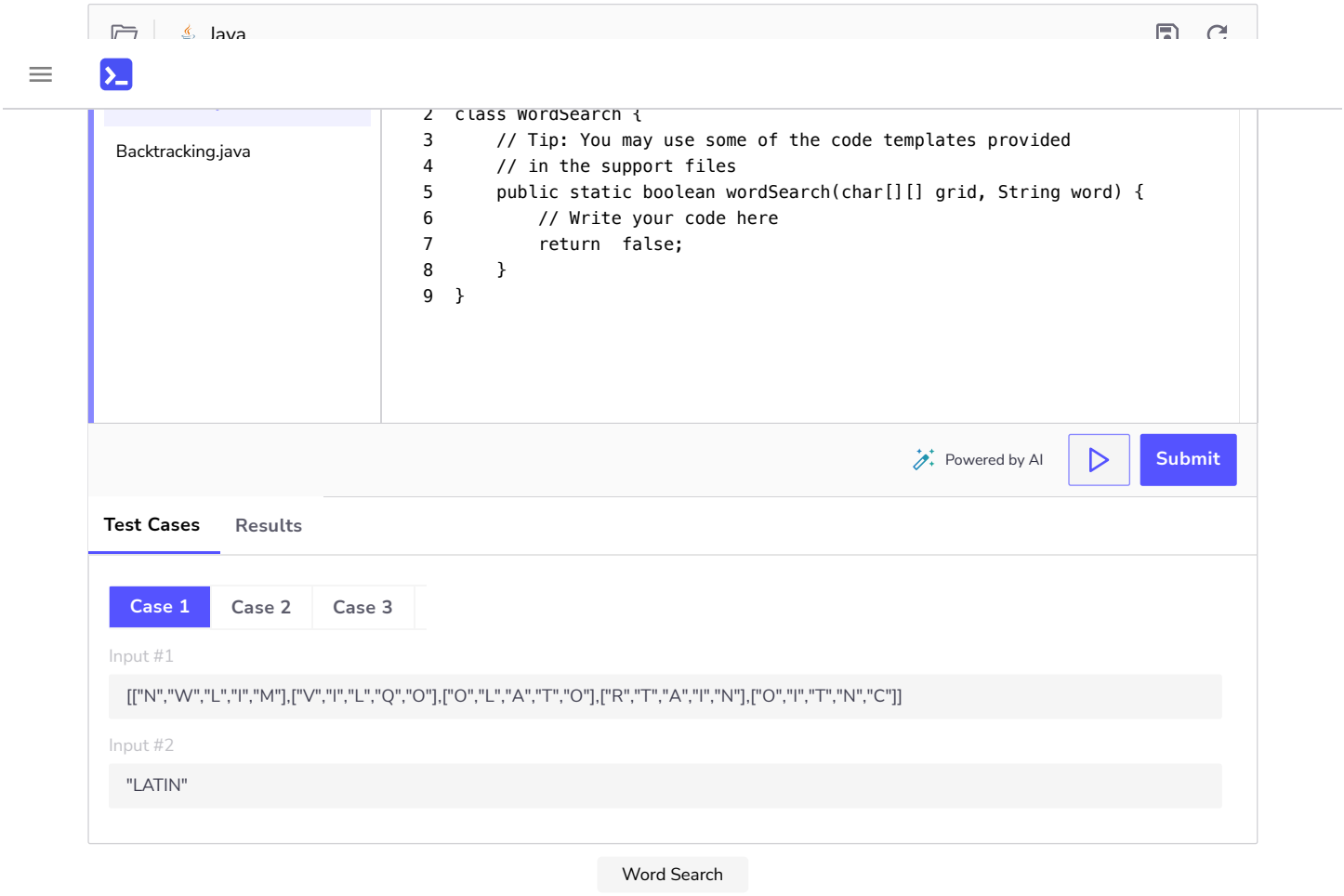
If a valid character is found, call the depth-first search function again for this cell.

Continue searching through the cells until either the search word is found or all cells in the grid have been visited.

Reset | Show Solution | Submit

Try it yourself

Implement your solution in `WordSearch.java` in the following coding playground. We have also provided a useful code template that you may build on to solve this problem.



Word Search

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Solution: N-Queens

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Solution: Word Search

Mark as Completed