

Question #2 (Very Hard)

Description:

You are given a 2D grid representing a maze, where:

- 'S' represents the starting point.
- 'F' represents the finish point.
- '.' represents an open path that can be traveled.
- '#' represents a wall that cannot be passed through.

Write a JavaScript function named `canTraverseMaze` that takes two arguments: a 2D grid (array of strings) representing the maze, and a string of directions to attempt to traverse the maze. The directions are given as a string consisting of the letters 'N' (north), 'S' (south), 'E' (east), and 'W' (west). The function should return `true` if the directions lead from the start to the finish point without running into walls or going out of bounds, and `false` otherwise.

Starting Code

```
function canTraverseMaze(maze, directions) {  
    // Your code here  
}
```

Sample Input 1

```
const maze = [  
    "S.#",  
    "...",  
    "..F"  
];  
const directions = "SEES";  
canTraverseMaze(maze, directions)
```

Sample Output 1

```
true
```

Sample Input 2

```
const maze = [  
  "S.#",  
  "...",  
  "..F"  
];  
const directions = "SSS";  
canTraverseMaze(maze, directions)
```

Sample Output 2

```
false
```