



Developer Challenge: Word Finder

Objective: The goal of this task is to evaluate your software development skills, code quality, analysis, inventiveness, and resourcefulness as a prospective future colleague, not necessarily to solve the problem. Please submit the artifacts that you would present to your peers in a real-world professional context in order for them to best evaluate your work.

You are given an extensive word stream and a character matrix. Your job is to develop a class that searches the matrix for the terms in the word stream. Words might appear vertically, from top to bottom, or horizontally, from left to right. The word "stream" in the example below has four words, but only three of those words ("chill," "cold," and "wind") are present in the matrix:

cold			a	b	c	d	c
wind			f	g	w	i	o
snow			c	h	i	l	l
chill			p	q	n	s	d
			u	v	d	x	y

The search code must be created in the form of a class that implements the following interface:

```
public class WordFinder {
    public WordFinder(IEnumerable<string> matrix) {
        ...
    }
    public IEnumerable<string> Find(IEnumerable<string> wordstream) {
        ...
    }
}
```

The WordFinder constructor is given a string array representing a character matrix. The matrix size is limited to 64x64, and all strings have the same number of characters. The "Find" method should return the top ten most repeated terms from the matrix's word stream. It should return an empty set of strings if no words are discovered. If a term in the word stream appears more than once in the stream, the search results should only count it once.

Because of the sheer volume of the word stream, the code should be developed in a **high-performance** manner, both in terms of efficient algorithm and system resource consumption. Please offer your analysis and evaluation if possible.

Once completed, please upload the project to a public repository so that it can be examined.