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2024 ACSL 全明星正 式考试 (Junior)

Run-Length Encoding [10/10] ACSL Word Search

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ACSL Word Search

CLASS / SOURCE NAME

Nameyourclass acslword.

PROBLEM: Given a grid containing letters along with a list of words, find where each word appears in the grid. A word can appear horizontally (left-to-right or right-to-left), vertically (top-to-bottom or bottom-to-top), or diagonally (in any direction). Words can overlap, but no wrap-around is permitted. Output the letters in the grid that are not used, in row-major order.

Each word will appear in exactly one place in the grid.

EXAMPLE:

Input:

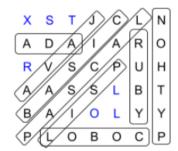
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XSTJCLNADAIARORVSCPUHAASSLBTBAIOLYYPLOBOCP PASCAL LISP BASIC COBOL JAVA PYTHON ADA RUBY

Solution:

The initial grid is at the left. The image at the right shows where the words appear.

Х	S	Т	J	С	L	Ν	
Α	D	Α	I	Α	R	0	
R	٧	S	С	Р	U	Н	
Α	Α	S	S	L	В	Т	
В	Α	I	0	L	Υ	Υ	
Р	L	0	В	0	С	Р	



Output: XSTRLOL

INPUT: Input 3 strings. The first string is the number of rows and columns in the grid, with a single space between them. The second string is the characters in the grid in row-major order. The third string is the list of words to find, with a single space between each word.

OUTPUT: After finding all of the given strings, output, in row-major order, a string of all of the characters that are not used in the grid.

SAMPLE INPUT	SAMPLE OUTPUT
6 7 XSTJCLNADAIARORVSCPUHAASSLBTBAIOLYYPLOBOCP PASCAL LISP BASIC COBOL JAVA PYTHON ADA RUBY	XSTRLOL
8 12 JZDGSLMUGMSCXUJEIHRJHTAZSZNRCEASXRLYMVPEBEURCOMBEAXOPRMJKSOYLZTUBZVBJENLTCCSNAPPERZUOAUGUSTZJRXJ APRIL MAY JUNE JULY AUGUST OCTOBER DECEMBER SALMON SHARK SMELT SNAPPER BRUSH COMB CUP MUG RESORT	ZGCXJJZZXVXJZZVJZZJX
8 12 BGSXEZPSSLHSROZAEUTCPOZAEPOONERHOTCGKEHTKDJOUSEKASZSIXAONILZEOULHZZLDPFYNMODOLLARXIESSZXSLIPPERN BOOT SOCK SNEAKER SANDAL SHOE SLIPPER DOLLAR PESO EURO POUND YEN SOLID GAS SCHOOL	GXZPLHZTZETKJSEZSXILZUHZZPFMXIZX

---中文仅供参考,以英文为准------

问题:给定一个包含字母的网格和一系列单词,找出每个单词在网格中的位置。单词可以横向(从左到右或从右到左)、纵向(从上到下或从下到上)或在任意对角线方向出现。单词可以重叠,但不允许环绕。按行优先顺序输出网格中未使用的字母。每个单词在网格中恰好出现一次。

示例:

输入:

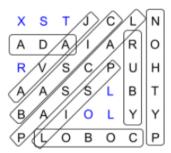
67

XSTJCLNADAIARORVSCPUHAASSLBTBAIOLYYPLOBOCP PASCAL LISP BASIC COBOL JAVA PYTHON ADA RUBY

解析:

左图是初始网格。右图显示单词出现的位置。

X S T J C L N
A D A I A R O
R V S C P U H
A A S S L B T
B A I O L Y Y
P L O B O C P



输出:

XSTRLOL

输入: 输入 3 个字符串。第一个字符串表示网格的行数和列数,这两个数字之间用一个空格隔开。第二个字符串是网格中按行优先顺序排列的字符。第三个字符串是要查找的单词列表,每个单词之间用一个空格隔开。

输出: 找到所有给定单词后,按行优先顺序输出网格中所有未使用的字符。

样例输入	样例输出
6 7 XSTJCLNADAIARORVSCPUHAASSLBTBAIOLYYPLOBOCP PASCAL LISP BASIC COBOL JAVA PYTHON ADA RUBY	XSTRLOL
8 12 JZDGSLMUGMSCXUJEIHRJHTAZSZNRCEASXRLYMVPEBEURCOMBEAXOPRMJKSOYLZTUBZVBJENLTCCSNAPPERZUOAUGUSTZJRXJ APRIL MAY JUNE JULY AUGUST OCTOBER DECEMBER SALMON SHARK SMELT SNAPPER BRUSH COMB CUP MUG RESORT	ZGCXJJZZXVXJZZVJZZJX
8 12 BGSXEZPSSLHSROZAEUTCPOZAEPOONERHOTCGKEHTKDJOUSEKASZSIXAONILZEOULHZZLDPFYNMODOLLARXIESSZXSLIPPERN BOOT SOCK SNEAKER SANDAL SHOE SLIPPER DOLLAR PESO EURO POUND YEN SOLID GAS SCHOOL	GXZPLHZTZETKJSEZSXILZUHZZPFMXIZX

注意:

- (1) 样本数据仅为部分测试数据,测试用例全部通过不代表通过本题。
- (2) 你必须通过数据库中所有的测试点才能获得该题满分。
- (3) java 语言里面的 class name (类名) 需要用本题的 Source file name (即: acslword) 。
- (4) 平台判分规则为调取 10 次 input 值,每次单独判分。

1	Enter your program code here

The Cuttle system can be used for maths and science competitions, entrance exams or employee exams.