IET DSA python SMP

Assignment 1

1. Common Characters :-

Given N strings, find the common characters to all those N strings.

Input Format:

N

String1

String2

.

.

StringN

Note:

The strings can have any 256 characters.

1. Rotate by 45 deg clockwise :-

Given a string, store each of the single characters in a square matrix (formed by list) in the following format:

Note:

If the length of the string is not a perfect square, pad it with ‘\*’ (asterisks) till the length is equal to the nearest square number.

Input Format:

String1

Eg 1:

String1 = “WORLD”

String2 = “WORLD\*\*\*\*”

Output matrix should be following -

[ [‘W’,’R’,’\*’],

[‘O’,’D’,’\*’],

[‘L’,’\*’,’\*’] ]

Eg 2:

String1 = “FOUR”

String2 = “”FOUR”

Output matrix should be following -

[ [‘F’,’U’],

[‘O’,’R’] ]

1. Censor It :-

Given a string, and N other words, replace parts of the string which match the given words with asterisks.

Input Format:

String

N

Word1 Word2 Word3 ……. WordN

Note: All the words are separated by a single space.

Eg 1:

Input -

“Python is very easy to learn”

2

is easy

Output-

“Python \*\* very \*\*\*\* to learn”

1. Triangular area :-

Given three coordinates of a triangle, find its area.

Input Format:

x1 y1

x2 y2

x3 y3

Output Format:

Area

Note:

x,y can be decimal numbers also.

1. Kth smallest :-

Find Kth smallest number in a list of numbers.

Input Format:

n1 n2 n3 n4 ……. nM

K

Output Format:

Print Kth smallest number in the list if it exists or print “Does Not Exist!”

Note:

Input numbers are space separated.