Beat The Leader

Some rats are moving on a rectangular surface which is made using rectangular bricks. Each brick has its own temperature. Let us consider an example as shown in the figure 1. Number written on each brick is temperature of that brick. Some rats (represented by small circles) are present on some positions (i.e. bricks).

Figure 1 shows their initial positions. At any time, a rat will always move to that

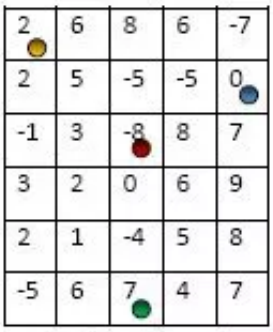

Figure 1

nearby brick, by moving to which he can undergo a minimum temperature change (in magnitude).

For example the rat shown by blue color will go to the left brick in 1st step (as change is minimum, if rat will go to this nearby brick) as shown in figure 2. Possible movements of a rat are in only four directions (upper, lower, left and right).

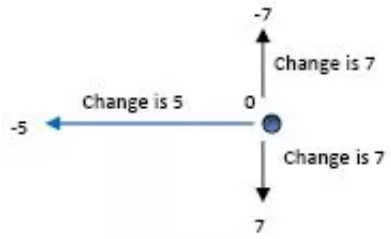

Figure 2

You can see the movement of each rat in three steps after initial position is given for each rat in figure 3.

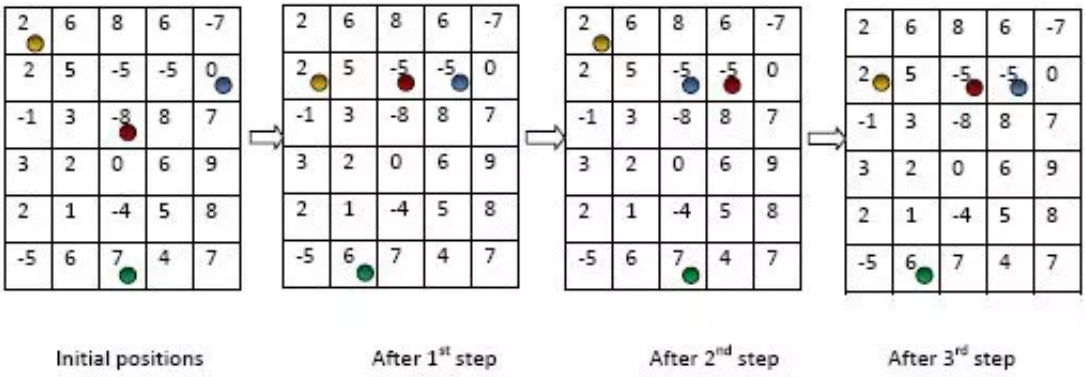

Figure 3

Your program should output positions of the rats after any number of steps say after n steps. You can assume that temperature on each brick is an integer value. Also assume that, if you have choice in movement (i.e. more than one positions give minimum change in magnitude) then preference should be given in order upper, right, lower, left.

Input Specification:
The default function must accept three inputs:

Input 1:
A string array depicting Initial positions of all four rats.
Input 2:
A string array depicting the temperature of bricks.
Input 3:
An integer depicting number of steps after which you want to find the position of the rats.

For the example considered in the question, input should be {1#1,2#5,3#3,6#3}, {2#6#8#6#-7,2#5#-5#-5#0,-1#3#-8#8#7,3#2#0#6#9,2#1#-4#5#8,-5#6#7#4#7}, 3.

Here 1#1 is position of yellow rat, 2#5 is position of blue rat, 3#3 is position of red rat and 6#3

is position of green rat.

Output Specification:

Output should be positions of rats after given number of steps .
For the example considered in the question, output is {2#1,2#4,2#3,6#2}
Note that output positions should be in order of given input positions.

Example:

Input:
{1#1,2#5,3#3,6#3}
{2#6#8#6#-7,2#5#-5#-5#0,-1#3#-8#8#7,3#2#0#6#9,2#1#-4#5#8,-5#6#7#4#7}
3
Output:
{2#1,2#4,2#3,6#2}

Instructions:

1) You can copy the provided solution after selecting your preferred language and paste it into the coding editor and debug in order to maximize your score and performance.
2) Read the code carefully and find the issues in the code. The code may either have a logical bug or negative case failure or any runtime exception.
3) You can print and debug your code at any step of the code.
4) Use Ctrl+Space key to get auto-completion suggestions of code / snippets.
5) Do not change the signature for the default function **RatsPostions**().
6) When you submit your code, test cases of different complexity level are executed in the background and marks are given based on the number of test cases passed.
7) Your submitted code is evaluated on **Marks, Attempts, Time Complexity, Memory Usage, Code Size** etc and benchmarked against the most optimized solution for the previous day and other submissions for the day. The most optimized solution for the day wins.
8) The most optimized solution at the end of the Beat the Leader track becomes the Beat the Leader Champion.

SAMPLE CODE SNIPPET:

c

cpp

csharp

java

php

python

js

```
                        diff[3] = getDifference(Mouse[l
                        tempMouse[3].row = tempRow + 1;
                        tempMouse[3].column = tempCol;
                        tempMouse[3].value = getValueat
                        bits |= 0x08;
                }
                if(findMin(diff,bits) < 4 )
                {
                                Mouse[loopCount] = temp
                }


        }


}
```

Select language

C

Upload Code as file

```
1  #include<stdio.h>
2  #include<string.h>
3
4  char** RatsPostions(char* input1[],char* input2[],int input3)
5  {
6      //Write code here
7  }
8
```

NORMAL Line: 8 Col: 1

Own Testcase Compile & Run Code

Submit Code

See sample problems (http://www.techgig.com/recruit/tests/info/instructions/Mzg4MEAjJEAjJDE3NTA2MzhAIyRAIyQyODgxMz statement=true)
