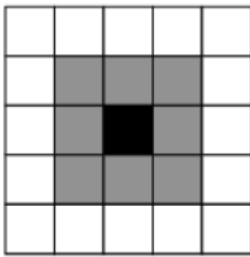


Python Code Challenge

Given the locations of bombs, print a board that is the result of solving a game of Minesweeper. Minesweeper is a single—player video game played on a board containing hidden bombs. The bombs are located in some cells that are unknown by the player. The goal is to find all the bombs without detonating any of them.

To do this, the player can click on a chosen field, which can lead to one of two scenarios:

- if a bomb was located in this field, the bomb explodes, and the player loses the game.
- if there was no bomb, one digit is revealed in this field. The digit ('0'-'8') indicates the number of bombs in the neighborhood of this field. Two fields are neighbors if they share a side or a corner. For example, in the image below, neighbors of the black field are marked in gray.



Data Engineering Technical Assessment

You are given a square board with N rows and N columns (both numbered from 0 to $N-1$). The upper left field is located at (0, 0). M bombs (numbered from 0 to $M-1$) are hidden on the board. The K -th bomb is located in row $R[K]$ and column $C[K]$.

Print the description of the board in N lines.

The K -th line describes the K -th row and consists of N characters. Denote bombs with the character 'B', and in places with no bombs, print the number of bombs in their neighborhood, as explained above.

Write a function:

```
def solution (N, R, C)
```

that, given an integer N and two arrays R and C , both consisting of M integers, prints the description of the Minesweeper board.

Examples:

1. Given $N = 3$, $R = [2, 1, 0, 2]$ and $C = [0, 2, 1, 2]$, your function should print:

1B2 24B B3B

The bombs are at locations (2, 0), (1, 2), (0, 1) and (2,2).

2. Given $N = 5$, $R = [2, 3, 2, 3, 1, 1, 3, 1]$ and $C = [3, 3, 1, 1, 1, 2, 2, 3]$, your function should print:

12321 2BBB2 3B8B3 2BBB2 12321

3. Given $N = 2$, $R = []$ and $C = []$, your function should print:

00 00

There are no bombs.

You can print a string to the output (without or with the end-of-line character) as follows:

`sys.stdout.write("sample string") sys.stdout.write("whole line\n")`

Assume that:

- N is an integer within the range $[1..20]$;
- M is an integer within the range $[0..N*N]$;
- each element of arrays R , C is an integer within the range $[0..N-1]$;
- locations of the bombs are unique.