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Level 4

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Without modifying the terrain, the largest flat square area is not big enough to save the planet. From now on, you will be able to **increase or decrease the altitude of any cell by at most 1 unit.**

Your task remains the same, find the largest square area that can be flattened by modifying the terrain as mentioned above.

If there are **multiple answers of maximal length, output all of them sorted ascending by row first and then column.**

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Input

r c
a_{00} a_{10} a_{20} ... $a_{c-1\ 0}$
a_{01} a_{11} a_{21} ... $a_{c-1\ 1}$
...
a_{0r-1} a_{1r-1} ... a_{c-1r-1}

c - number of columns
r - number of rows
a_{xy} - altitude of world at column x and row y (integer)

r, c, a_{xy} < 10^3

Output

length
X_0 Y_0
X_1 Y_1
X_2 Y_2
...

X_i - **column** of the top left cell of the i-th flat area of maximal length
Y_i - **row** of the top left cell of the i-th flat area of maximal length
length - length of the square of the largest flat area

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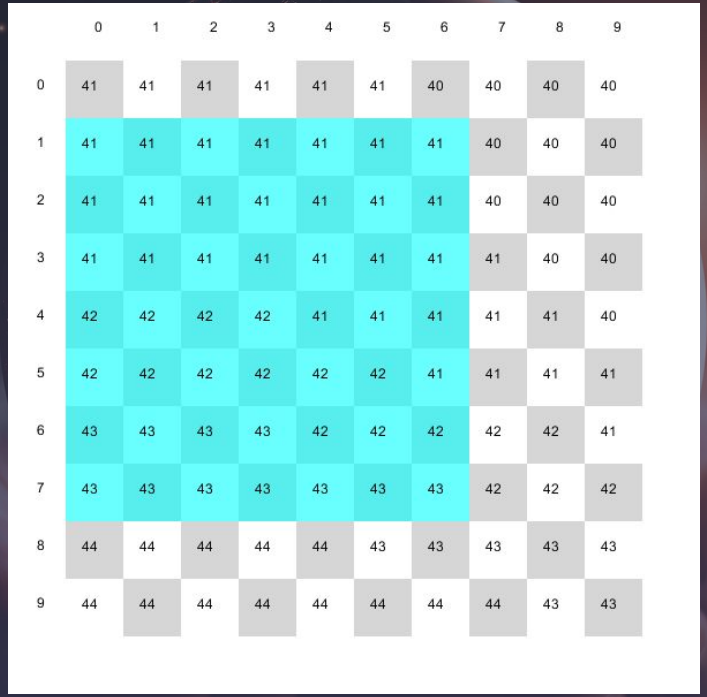

	0	1	2	3	4	5	6	7	8	9
0	41	41	41	41	41	41	40	40	40	40
1	41	41	41	41	41	41	41	40	40	40
2	41	41	41	41	41	41	41	40	40	40
3	41	41	41	41	41	41	41	41	40	40
4	42	42	42	42	41	41	41	41	41	40
5	42	42	42	42	42	42	41	41	41	41
6	43	43	43	43	42	42	42	42	42	41
7	43	43	43	43	43	43	43	42	42	42
8	44	44	44	44	44	43	43	43	43	43
9	44	44	44	44	44	44	44	44	43	43

Image representing the given example.
The cyan squares represent the first flat area from the answer.