Flipping Paths

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	1024 megabytes

Grammy has a rectangular sheet of paper of size $n \times m$ divided into unit square cells. Initially, some cells are black, and others are white. Grammy has to paint all the cells the same color. In order to achieve that, Grammy can perform the following operation at most 400 times:

- Place the pencil at the top-left cell of the sheet (assume this cell has coordinates $(1, 1)$), and draw a path to the bottom-right cell of the sheet (the cell with coordinates (n, m)). The path must go along the cells, moving only down or right. Specifically, if the pencil is at (x, y), it can move either down to $(x + 1, y)$ or right to $(x, y + 1)$. Grammy must ensure the pencil remains within the sheet.
- After that, change the color of all cells located on the path (that is, paint all white cells on the path black, and all black cells on the path white).
- Finally, erase the drawn path, and proceed to the next operation (if necessary).

Please help Grammy find a way to paint all the cells the same color in at most 400 operations, or state that such a way does not exist.

Input

There are multiple test cases.

The first line contains a single integer T ($1 \le T \le 500$), denoting the number of test cases. For each test case:

The first line contains two integers n, m ($1 \le n, m \le 200, 2 \le nm$), denoting the number of rows and columns of the grid.

Each of the next n lines contains m characters c_{ij} ($c_{ij} \in \{$'`W`', '`B`'$\}$), denoting the initial color of each cell. '`W`' stands for black ("wakuda" in Chewa) and '`B`' stands for white ("biancu" in Corsican).

It is guaranteed that neither the sum of n nor the sum of m exceeds 1000.

Output

For each test case:

If the solution does not exist, output "`NO`" on a single line.

Otherwise, output "`YES`" on the first line, then output a single integer k ($0 \le k \le 400$) on the second line, denoting the number of operations used. Finally, output k lines describing the paths used in the operations.

Each path should be described as a string of moves ('`R`' for right and '`D`' for down). You should make sure that those moves actually form a path from $(1, 1)$ to (n, m).

Example

standard input	standard output
4 3 3 WBB BWB BBW 1 5 WWWWW 2 2 BB BB 4 1 W B B W	YES 2 RRDD DDRR YES 0 YES 0 NO