

Problem B. Build The Grid

Input file: *standard input*
Output file: *standard output*
Time limit: 2 seconds
Memory limit: 1024 mebibytes

Given is a square grid of $N \times N$ squares. Your task is to paint each square of the grid either white or black such that:

- The white squares are connected: for any two white squares, you can go from one to the other by moving only between white squares that share a side.
- Each black square shares a side with at least one white square.
- Denote the number of black cells in the i -th row as p_i . The sequence $P = (p_1, p_2, \dots, p_N)$ is then a permutation of integers between 0 and $N - 1$, inclusive.
- Denote the number of black cells in the j -th column as q_j . The sequence $Q = (q_1, q_2, \dots, q_N)$ is then a permutation of integers between 0 and $N - 1$, inclusive.

It can be shown that such a construction always exists.

Input

The input consists of one integer N ($2 \leq N \leq 500$).

Output

Print N lines. On the i -th line, print a string of length N consisting of characters 'B' and 'W'. The j -th character in the i -th string corresponds to the square in i -th row and j -th column: 'B' denotes black squares and 'W' denotes white squares.

Example

<i>standard input</i>	<i>standard output</i>
3	W WB BWB WW