**Siena College’s 32nd Annual** **High School Programming Contest**

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##### **March 29, 2019**

###### Gold Problem #7:  Three in a Row

Background Information: A Three in a Row puzzle is a type of logic puzzle where you have to color a squares of an n x n board either White or Black,. The restrictions are that each row and column must have the same number of Blue and White squares, and that neither a row nor a column may have three consecutive squares of the same color.

Your program with be given a positive even integer N, followed by N Strings of {B, W, O} characters. Your program must replace each O with either a B or W, so that the conditions listed above are met. Each puzzle has a unique solution.

###### Programming Problem:

Input:   A positive even integer N $\leq 18$, followed by N strings of {B, W, O} characters,

 each string on its own line.

Output:  N strings of {B, W} characters that is a correct solution to the puzzle.

###### Example 1: Input: Example 2:

######  6 8

OOOOOO OOOOOBBO

WOWOWO OOOOWOOO

WOOOOO BOBOOOOO

OWOOWW OWOWOOOW

WOBOBO WOOOOBOO

OOOOOB OOOOWOOO

 WOWOOBOO

 OWOBOOOW

######

######  Output:

BWBWBW WBBWWBBW

WBWBWB WBWBWBWB

WBWWBB BWBWBWWB

BWBBWW BWBWBWBW

WBBWBW WBWBWBWB

BWWBWB BWBBWWBW

 WBWWBBWB

 BWWBBWBW

V1