Design a Tic-tac-toe game that is played between two players on a *n* x *n* grid.

You may assume the following rules:

1. A move is guaranteed to be valid and is placed on an empty block.
2. Once a winning condition is reached, no more moves is allowed.
3. A player who succeeds in placing *n* of their marks in a horizontal, vertical, or diagonal row wins the game.

**Example:**

Given *n* = 3, assume that player 1 is "X" and player 2 is "O" in the board.

TicTacToe toe = new TicTacToe(3);

toe.move(0, 0, 1); -> Returns 0 (no one wins)

|X| | |

| | | | // Player 1 makes a move at (0, 0).

| | | |

toe.move(0, 2, 2); -> Returns 0 (no one wins)

|X| |O|

| | | | // Player 2 makes a move at (0, 2).

| | | |

toe.move(2, 2, 1); -> Returns 0 (no one wins)

|X| |O|

| | | | // Player 1 makes a move at (2, 2).

| | |X|

toe.move(1, 1, 2); -> Returns 0 (no one wins)

|X| |O|

| |O| | // Player 2 makes a move at (1, 1).

| | |X|

toe.move(2, 0, 1); -> Returns 0 (no one wins)

|X| |O|

| |O| | // Player 1 makes a move at (2, 0).

|X| |X|

toe.move(1, 0, 2); -> Returns 0 (no one wins)

|X| |O|

|O|O| | // Player 2 makes a move at (1, 0).

|X| |X|

toe.move(2, 1, 1); -> Returns 1 (player 1 wins)

|X| |O|

|O|O| | // Player 1 makes a move at (2, 1).

|X|X|X|

Solution: Maintain state variable for every row, column and two diagonals. When a value is inserted in to the matrix, add the player’s value to the row’s state. If player 1 then add 1 and if player is 2 then add -1. At any insertion, of any row, column or diagonals have values n or -n then it means that player 1 or player 2 has won.