Merve YAVUZ

1621221003

OTHELLO

Othello is a strategy board game for two players, played on an 8×8 board. There are sixty-four identical game pieces called discs, which are white on one side and black on the other. Players take turns placing disks on the board with their assigned color facing up.

Move - Each player makes move one disc of his own color on an empty cell, if at least one opponent disc is between that disc and another friendly disc.

All opponent discs that were between those discs flip their color.

The flip may occur in more than one direction in the same turn.

Pass - A player must pass if he has no valid move.

Win - When both players pass, the one with more discs wins.
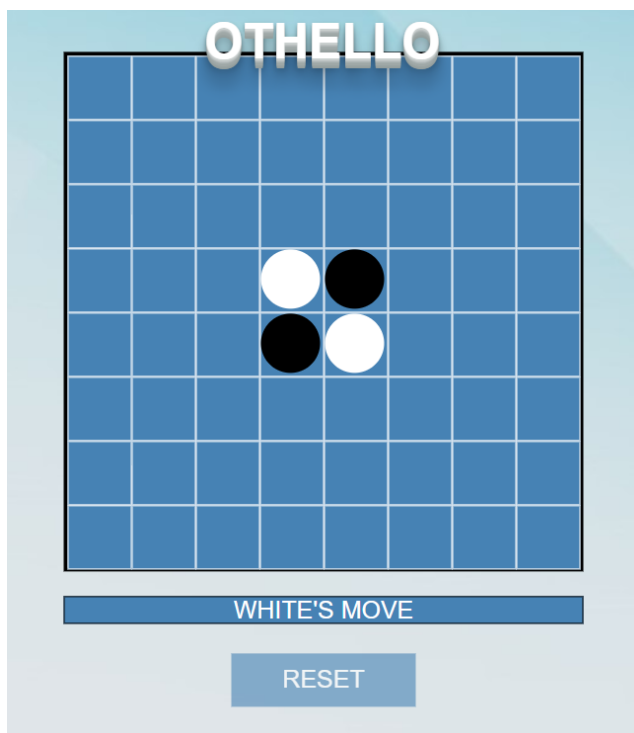
Algorithm

Different squares have different values. There's three values for an index: black disc, white disc and empty. Each disc is stored in an array index in a two-dimensional array.

The indexes around the disc are checked when the blackboard is clicked. If the clicked index is not empty or the move is not valid, turn changes to other disc.

If the move is valid, two dimensional array is updated.

In every move, player turn changes to another. If there are no valid moves, the blacks and whites in the array are counted and the one with more discs wins.

References:

https://codepen.io/zitrusfrisch/pen/wvcxy

https://very-chocho.ml/post-105/

https://www.w3schools.com/howto/tryit.asp?filename=tryhow_css_js_dropdown