Project statement

This programs goal is to create a game of tic-tac-toe. It must record who’s turn it is, who clicked which square and which squares have been clicked. It will also change the image of the square depending on who clicked and it will declare the result of the match after all squares have been clicked or if certain combinations of square are clicked by a single player.

Nouns and verbs:

-Player

-Turn

-Who clicked

-Square clicked

-Result

- change image

Inputs - Who Clicked, Square Clicked

Outputs – Result, change image

Processing – Player, Turn

Pseudocode -

BEGIN

init xTurn = true

init squareClicked = [false\*9]

init whoClicked = [9 elements !== 1 or 2]

\*Input is received from player via squareClick\*

function squareClick(squareNumber)

{

var square = document.getElementById("area" + squareNumber);

IF (xTurn and squareClicked[squareNumber] = false)

{ changes image depending on player turn

squareClicked[squareNumber] = true

whoClicked[squareNumber] = 1

isItWin

xTurn = !xTurn

}

ElSE IF (!xTurn and squareClicked[squareNumber] = false)

changes image depending on player turn

squareClicked[squareNumber] = true

whoClicked[squareNumber] = 1

isItWin

xTurn = !xTurn

}

ELSE

{

}

}

Function isItWin

{

IF (whoClicked[0] = whoClicked[1] and whoClicked[2])

{

IF(xTurn = true)

{

Alert(“X Wins!”)

}

IF(xTurn = false)

{

Alert(“O Wins!”)

}

}

}

Repeat for every winning combination or no winner if there is none.

TESTS

* Click all squares in succession from top left to bottom right. X should win on the 7th click.

-X wins on the 7th click.

- Click square 3, 0, 4, 1, 6 and 2 in that order. O should win.

-O wins once 2 has been clicked.

- Click squares 3, 0, 4, 1, 2, 5, 7, 6 and 8 in that order. There should be no winners.

- A prompt reveals there are no winners.

- Click square 1 five times. An x should appear after the first click and then nothing will happen on the other 4 clicks.

- The first click resulted in an x and the rest of the clicks were pointless.