

frmTicTacToe - 1

'Example for CSC 177 class

'The example is not intended to actually play a game of TicTacToe.

'Rather it is designed to show how a two dimensional array might be used.

'Feel free to modify the code to make it a working game if you choose.

Option Explicit

Dim turns As Integer

Dim boxes() As Boolean

Private Sub computer\_turn()

Dim i, j As Integer

'counters to use in for loops

Dim done As Boolean

'run until an O has been placed

Dim box As Integer

'button to use for O

done = False

Randomize

Do

i = Int((Rnd() \* 2) + 0.99)

j = Int((Rnd() \* 2) + 0.99)

'Is box available for an O

If boxes(i, j) = False Then

Select Case i

Case 0

Select Case j

Case 0

box = 0

Case 1

box = 1

Case 2

box = 2

End Select

Case 1

Select Case j

Case 0

box = 3

Case 1

box = 4

Case 2

box = 5

End Select

Case 2

Select Case j

Case 0

box = 6

Case 1

box = 7

Case 2

box = 8

End Select

End Select

cmdTurn(box).Font.Size = 36

cmdTurn(box).Caption = "O"

cmdTurn(box).Enabled = False

boxes(i, j) = True

done = True

End If

Loop Until done

'continue until an O has been place in a box

turns = turns + 1

End Sub

Private Sub cmdExit\_Click()

End

End Sub

```

Private Sub cmdTurn_Click(index As Integer)
    cmdTurn(index).Font.Size = 36           'set font size and X and O
    cmdTurn(index).Caption = "X"           'Person selects this box
    cmdTurn(index).Enabled = False         'command button no longer available
    turns = turns + 1
    'mark turn in array
    Select Case index
        Case 0
            boxes(0, 0) = True
        Case 1
            boxes(0, 1) = True
        Case 2
            boxes(0, 2) = True
        Case 3
            boxes(1, 0) = True
        Case 4
            boxes(1, 1) = True
        Case 5
            boxes(1, 2) = True
        Case 6
            boxes(2, 0) = True
        Case 7
            boxes(2, 1) = True
        Case 8
            boxes(2, 2) = True
    End Select
    Select Case turns
        Case Is < 9
            Call computer_turn
        Case Else
            cmdExit.Visible = True
    End Select
End Sub

```

```

Private Sub Form_Load()
    Dim i, j As Integer                    'counters to use in for loops
    ReDim boxes(0 To 2, 0 To 2) As Boolean 'two dimensional array to track turns
    turns = 0                              'initialize turns
    'initialize all elements of array to equal false
    For i = 0 To 2
        For j = 0 To 2
            boxes(i, j) = False
        Next j
    Next i
    cmdExit.Visible = False                'exit game command button not visible
End Sub

```