Lab - 9

Tic Tac Toe using Min Max

Define 3x3 grid where each cell can be
X : Player 1
O : Player 2

+10 : Maximize wins
-10 : Minimize wins
0 : Draw

```
def minmax(board, depth, is Maximizer
    score = evclude (board)

    if score == -10 or score == 0 :
        return score
    if is board full (board):
        return 0

AI's move =    if is Maximizer:
                   best = -infinity
                   for each empty cell:
                   best = max(best, Minimax(board
                                            depth
                                            
                   board[cell] = empty
                   return best.
                   else.
                       best = +infinity
        opponent       best = +infinity
                       for each empty cell:
```

make move (board, cell, 'x')
score = minimax (board, depth+1, false)
undomove (board, cell)
best score = min (bestscore, score)
return best score

def find Best move (board):
    best move = None
    best value = - infinity

for each empty cell in board:
    make move (board, cell, 'x')
    move value = minimax (board, 0, false)
    if move value > best value:
        best move = cell
        best value = move value
    return best move

It is a draw!