

Tic tac toe

Problem

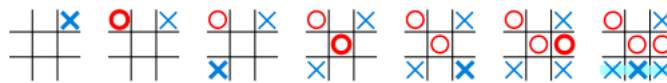
Submissions

Leaderboard

Discussions

Tic-tac-toe is a pencil-and-paper game for two players, X (ascii value 88) and O (ascii value 79), who take turns marking the spaces in a 3×3 grid. The player who succeeds in placing three respective marks in a horizontal, vertical, or diagonal row wins the game. Empty space is represented by _ (ascii value 95), and the X player goes first.

Here is an example game won by the first player, X:



The function nextMove takes in a char player, and the 3x3 board as an array. Complete the function to print 2 space separated integers *r* and *c* which denote the row and column that will be marked in your next move. The top left position is denoted by (0,0).

How does it work?

Your code is run alternately with the opponent bot for every move.

Example input:

```
X
---
---
_XO
```

Example output:

```
1 0
```

Explanation:

The board results in the following state after the above move

```
---
X__
_XO
```



Submissions: 4640

Max Score: 10

Difficulty: Advanced

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Python 3



```
1 #CHETAN NAG.R IBM22AI037
2 def nextMove(player, board):
3     def checkWin(b, p):
4         for r in range(3):
5             if all(b[r][c] == p for c in range(3)):
6                 return True
7         for c in range(3):
```

```

8     if all(b[r][c] == p for r in range(3)):
9         return True
10    if all(b[i][i] == p for i in range(3)):
11        return True
12    if all(b[i][2 - i] == p for i in range(3)):
13        return True
14    return False
15    opponent = 'O' if player == 'X' else 'X'
16    for r in range(3):
17        for c in range(3):
18            if board[r][c] == '_':
19                board[r][c] = player
20                if checkWin(board, player):
21                    print(r, c)
22                    return
23                board[r][c] = '_'
24    for r in range(3):
25        for c in range(3):
26            if board[r][c] == '_':
27                board[r][c] = opponent
28                if checkWin(board, opponent):
29                    print(r, c)
30                    return
31                board[r][c] = '_'
32    if board[1][0] == '_':
33        print(1, 0)
34        return
35    if board[1][1] == '_':
36        print(1, 1)
37        return
38    for r, c in [(0, 0), (0, 2), (2, 0), (2, 2)]:
39        if board[r][c] == '_':
40            print(r, c)
41            return
42    for r, c in [(0, 1), (1, 0), (1, 2), (2, 1)]:
43        if board[r][c] == '_':
44            print(r, c)
45            return
46    player = 'X'
47    board = [
48        ['_', '_', '_'],
49        ['_', '_', '_'],
50        ['_', 'X', 'O']
51    ]
52
53    nextMove(player, board)
54

```

Line: 45 Col: 19

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Run Code

Submit Code

Game 1

Game 2

[Permalink](#)

 vs 
 chetan_ai22 JudgeBot

X		O

JudgeBot won the game

⏮

⏪

⏹

⏩

⏭

Download moves as file

Player: 1		
Input		Output
<pre>X --- X_O ---</pre>		1 0
Error		