import random class TicTacToe: def \_\_init\_\_(self): self.board = [] def create\_board(self): for i in range(3): row = [] for j in range(3): row.append('-') self.board.append(row) def get\_random\_first\_player(self): return random.randint(0, 1) def fix\_spot(self, row, col, player): self.board[row][col] = player def is\_player\_win(self, player): win = None n = len(self.board) # checking rows for i in range(n): win = True for j in range(n): if self.board[i][j] != player: win = False break if win: return win # checking columns for i in range(n): win = True for j in range(n): if self.board[j][i] != player: win = False break if win: return win # checking diagonals win = True for i in range(n): if self.board[i][i] != player: win = False break if win: return win win = True for i in range(n): if self.board[i][n - 1 - i] != player: win = False break if win: return win return False for row in self.board: for item in row: if item == '-': return False return True def is board filled(self): for row in self.board: for item in row: if item == '-': return False

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def swap_player_turn(self, player):
       return 'X' if player == '0' else '0'
   def show_board(self):
        for row in self.board:
           for item in row:
               print(item, end=" ")
           print()
   def start(self):
       self.create_board()
        player = 'X' if self.get_random_first_player() == 1 else '0'
       while True:
           print(f"Player {player} turn")
           self.show_board()
           # taking user input
           row, col = list(
               map(int, input("Enter row and column numbers to fix spot: ").split()))
           print()
           # fixing the spot
           self.fix spot(row - 1, col - 1, player)
           # checking whether current player is won or not
           if self.is_player_win(player):
               print(f"Player {player} wins the game!")
               break
           # checking whether the game is draw or not
           if self.is_board_filled():
               print("Match Draw!")
               break
           # swapping the turn
           player = self.swap_player_turn(player)
        # showing the final view of board
        print()
       self.show_board()
# starting the game
tic_tac_toe = TicTacToe()
tic_tac_toe.start()
Player X turn
    - - -
    Enter row and column numbers to fix spot: 1 1
    Player O turn
    X - -
    Enter row and column numbers to fix spot: 2 1
    Player X turn
    0 - -
    Enter row and column numbers to fix spot: 1 3
    Player O turn
    X - X
     - - -
    Enter row and column numbers to fix spot: 2 2
    Player X turn
    X - X
    00-
    Enter row and column numbers to fix spot: 3 3
    Player O turn
```

```
X - X
0 0 -
- - X
Enter row and column numbers to fix spot: 3 2

Player X turn
X - X
0 0 -
- 0 X
Enter row and column numbers to fix spot: 2 3

Player X wins the game!

X - X
0 0 X
- 0 X
```

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