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In [1]: from IPython.display import clear_output
def display_board(board):
    clear_output()
    print(board[7]+'|'+board[8]+'|'+board[9])
    print(board[4]+'|'+board[5]+'|'+board[6])
    print(board[1]+'|'+board[2]+'|'+board[3])
def player_input():
    marker=' '
    while marker != 'X' and marker != 'O':
        marker=input('Player 1: Choose X or O').upper()
    if marker=='X':
        return('X','O')
    else:
        return('O','X')
def place_marker(board,marker,position):
    board[position]=marker
def win_check(board,mark):
    return ((board[7]==mark and board[8]==mark and board[9]==mark) or
            (board[4]==mark and board[5]==mark and board[6]==mark) or
            (board[1]==mark and board[2]==mark and board[3]==mark) or
            (board[7]==mark and board[4]==mark and board[1]==mark) or
            (board[8]==mark and board[5]==mark and board[2]==mark) or
            (board[9]==mark and board[6]==mark and board[3]==mark) or
            (board[7]==mark and board[5]==mark and board[3]==mark) or
            (board[9]==mark and board[5]==mark and board[1]==mark))
import random
def choose_first():
    flip = random.randint(0,1)
    if flip == 0:
        return 'Player 1'
    else:
        return 'Player 2'
def space_check(board, position):
    return board[position] == ' '
def full_board_check(board):
    for i in range(1,10):
        if space_check(board,i):
            return False
    return True
def player_choice(board):
    position = 0
    while position not in [1,2,3,4,5,6,7,8,9] or not space_check(board,position):
        position = int(input('Choose a position : (1-9)'))
    return position
def replay():
    choice = input("Play again? Enter Yes or No?")
    return choice == 'Yes'
print('Welcome to Tic Tac Toe')
while True:
    the_board=[' ']*10
    player1_marker, player2_marker = player_input()
    turn=choose_first()
    print(turn + 'will go first')
    play_game = input('Ready to play? Y or N?')
    if play_game == 'Y':
        game_on = True
    else:
        game_on = False
    while game_on:
        if turn == 'Player 1':
            display_board(the_board)
            position = player_choice(the_board)
            place_marker(the_board,player1_marker,position)
            if win_check(the_board,player1_marker):
                display_board(the_board)
                print('PLAYER1 HAS WON!!')
                game_on = False
            else:
                if full_board_check(the_board):
                    display_board(the_board)
                    print("TIE GAME!!")
                    game_on = False
                else:
                    turn = 'Player 2'
        else:
            display_board(the_board)
            position = player_choice(the_board)
            place_marker(the_board,player2_marker,position)
            if win_check(the_board,player2_marker):
                display_board(the_board)
                print('PLAYER2 HAS WON!!')
                game_on = False
            else:
                if full_board_check(the_board):
                    display_board(the_board)
                    print("TIE GAME!!")
                    game_on = False
                else:
                    turn = 'Player 1'
    if not replay():
        break
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|X|
X|X|
0|0|0
PLAYER1 HAS WON!!
Play again? Enter Yes or No?No
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In [ ]: 
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