

# first milestone project

November 29, 2022

```
[1]: def display_board(board):  
    print(f'{board[6]} | {board[7]} | {board[8]}')  
    print( '-----')  
    print(f'{board[3]} | {board[4]} | {board[5]}')  
    print( '-----')  
    print(f'{board[0]} | {board[1]} | {board[2]}')
```

```
[3]: def player_input():  
    marker1='A'  
    while not( marker1=='X' or marker1=='O'):  
        marker1=input('player 1,please choose: "X" or "O"')  
    return marker1
```

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[5]: def place_in_cell(board,symbol):  
    position=int(input('Enter the position you want to fill in (from 1-9)'))  
    board[position-1]=symbol  
    return board
```

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[6]: def winner(board):  
    a=False  
    mylist=[0,3,6]  
    for i in mylist:  
        if board[i]==board[i+1] and board[i]==board[i+2] and board[i]!='':  
            a= True  
    if not a:  
        for i in [0,1,2]:  
            if board[i]==board[i+3] and board [i]==board[i+6] and board[i]!='':  
                a= True  
    if not a:  
        if board[0]==board[4] and board[0]==board[8] and board[0]!='':  
            a=True  
        elif board[6]==board[4] and board[6]==board[2] and board[6]!='':  
            a=True  
    return a
```

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[8]: board=[' ',' ',' ',' ',' ',' ',' ',' ',' ']  
player1=''  
player2=''
```

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player1=player_input()
if player1=='X':
    player2='O'
else:
    player2='X'
game='on'
while game=='on':
    print("player 1's turn")
    board=place_in_cell(board,player1)
    display_board(board)
    if winner(board):
        print('the winner is player 1')
        game='off'
        continue
    print("player 2's turn")
    board=place_in_cell(board,player2)
    display_board(board)
    if winner(board):
        print('winner is player 2')
        game='off'

```

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player 1,please choose: "X" or "O"X
player 1's turn
Enter the position you want to fill in0
|  | X
-----
|  |
-----
|  |
player 2's turn
Enter the position you want to fill in2
|  | X
-----
|  |
-----
| 0 |
player 1's turn
Enter the position you want to fill in3
|  | X
-----
|  |
-----
| 0 | X
player 2's turn
Enter the position you want to fill in4
|  | X
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```

```

0 |  | 
-----
| 0 | X
player 1's turn
Enter the position you want to fill in5
|  | X
-----
0 | X | 
-----
| 0 | X
player 2's turn
Enter the position you want to fill in6
|  | X
-----
0 | X | 0
-----
| 0 | X
player 1's turn
Enter the position you want to fill in7
X |  | X
-----
0 | X | 0
-----
| 0 | X
the winner is player 1

```

[ ]: