

# Tic Tac Toe Game

```
# create board to place X or O

#creating board with the help of list with length 9
#define the board as function so that in order to print it again we just have to
define function

row=[" "," "," "," "," "," "," "," "," "]

def print_board():
    print(row[0:3])
    print(row[3:6])
    print(row[6:])

#Introduce the game and the rules

print('Welcome to Tic Tac Toe!')
print("Consider a board with the nine positions numbered as follows")

#creating a sample board to explain the positions i.e from 1 to 9

Sample_board=["1","2","3","4","5","6","7","8","9"]

#Asking player for input as in to where they want to place X or O and to make
the input as integer.

move = int(input("which position do you want to put x in?"))

#check if somebody has already taken that position

print("That space has been taken")

#otherwise ,place the X in that position

move = int(input("which position do you want to put x in?"))
if row[move-1]== " ":
    row[move-1] = "x"
```

```
#create loop so that it keeps on asking to put X or O  
or Else says "place has been taken"
```

```
while game ==1:
```

```
    while go != 1:
```

```
        #this explain position of x
```

```
        move = int(input("which position do you want to put x in?"))
```

```
        if row[move-1]== " ":
```

```
            row[move-1] = "x"
```

```
            go = 1
```

```
        else:
```

```
            print("That space has been taken")
```

```
go=0
```

```
Import random
```

```
#import random library so that computer can choose positions randomly
```

```
# Reset the loop for player 2 i.e. Computer,so that it asks Computer to place  
the O
```

```
#reset the loop to go back to X
```

```
go=0
```

```
#introduce conditions for win or draw
```

```
#import library sys so that we can exit the game after its a draw or win.
```

```
#introduce a variable count so that if count reaches 9 and nobody has won  
then it goes to "Game Draw"
```

```
#everytime an X or O is placed Count Increases by and once count reaches 9  
with no one winning(conditions later)
```

```
#show Game over its a draw and system exit
```

```
    if count == 9:
```

```
        print("Game over,it's a draw")
```

```
        sys.exit()
```

```
#specifying conditions for win and printing who has won and doing sys exit
```

```
    #this explains the condition when x will win
```

```
        if row[0] == "x" and row[1] == "x" and row[2] == "x":
```

```
            print("X wins")
```

```
            board()
```

```
        elif row[3] == "x" and row[4] == "x" and row[5] == "x":
```

```

        print("X wins")
        board()
    elif row[6] == "x" and row[7] == "x" and row[8] == "x":
        print("X wins")
        board()
    elif row[0] == "x" and row[3] == "x" and row[6] == "x":
        print("X wins")
        board()
    elif row[1] == "x" and row[4] == "x" and row[7] == "x":
        print("X wins")
        board()
    elif row[2] == "x" and row[5] == "x" and row[8] == "x":
        print("X wins")
        board()
    elif row[0] == "x" and row[4] == "x" and row[8] == "x":
        print("X wins")
        board()
    elif row[2] == "x" and row[4] == "x" and row[6] == "x":
        print("X wins")
        board()

```

#same to be done for Computer .

#by the board function add sys.exit() so that every time board is printed after win it automatically ends and exit.

#Changes to be done after feedback:

#defined the game win

```

    if (row[2] == row[4] == row[6] and row[2] != ' '):
        if row[2] == 'X':
            print("\nCongratulations,X wins\n ")
        else:
            print("\nCongratulations, Computer wins\n ")
    var = 1
    board()

```

#Creating the loop for the game

#giving option to the player to restart or exiting the game

command = input('Enter r to restart, or e to end game: ')

```

if command == 'e':
    print("Exiting Game")
    break

```

