**Q. Write a program to design a Tic-Tac-Toe game.**

**Python Program**

*# X-O Game*flag = False  
print(**"Enter the row number followed by the column number, separated by a space"**)  
print(**"Player1 : X** \n**Player2 : O"**)  
Game = [[**'\_'**, **'\_'**, **'\_'**],  
 [**'\_'**, **'\_'**, **'\_'**],  
 [**'\_'**, **'\_'**, **'\_'**]]  
  
  
def check(game):  
 *# Vertical Check* for counter in range(3):  
 if game[0][counter] == **"X"** and game[1][counter] == **"X"** and game[2][counter] == **"X"**:  
 return True  
 elif game[0][counter] == **"O"** and game[1][counter] == **"O"** and game[2][counter] == **"O"**:  
 return True  
 *# Horizontal check* for counter in range(3):  
 if game[counter][0] == **"X"** and game[counter][1] == **"X"** and game[counter][2] == **"X"**:  
 return True  
 elif game[counter][0] == **"O"** and game[counter][1] == **"O"** and game[counter][2] == **"O"**:  
 return True  
 *# diagonal check* if game[0][0] == **"X"** and game[1][1] == **"X"** and game[2][2] == **"X"**:  
 return True  
 elif game[0][2] == **"O"** and game[1][1] == **"O"** and game[2][0] == **"O"**:  
 return True  
 return False  
  
  
def printer(game):  
 for row\_counter in range(3):  
 for column\_counter in range(3):  
 print(game[row\_counter][column\_counter], end=**" "**)  
 print()  
 return  
  
  
def player1():  
 temp = input(**"Player1, your move : "**).split()  
 row = int(temp[0]) - 1  
 column = int(temp[1]) - 1  
 if Game[row][column] == **"O"**:  
 print(**"Invalid Input, There is already an O at that position"**)  
 player1()  
 elif Game[row][column] == **"X"**:  
 print(**"Invalid Input, There is already a X at that position"**)  
 player1()  
 Game[row][column] = **"X"** *# counting += 1* printer(Game)  
 flag = check(Game)  
 if flag:  
 print(**"Player1 WINS!!!"**)  
 return  
 fl\_ag = False  
 for row\_counter in range(3):  
 for column\_counter in range(3):  
 if Game[row\_counter][column\_counter] == **"\_"**:  
 fl\_ag = True  
 break  
 if not fl\_ag:  
 print(**"Draw Match"**)  
 return  
 if not flag:  
 player2()  
  
  
def player2():  
 temp = input(**"Player2, your move : "**).split()  
 row = int(temp[0]) - 1  
 column = int(temp[1]) - 1  
 if Game[row][column] == **"X"**:  
 print(**"Invalid Input, There is already a X at that position"**)  
 player2()  
 elif Game[row][column] == **"O"**:  
 print(**"Invalid Input, There is already a O at that position"**)  
 player2()  
 Game[row][column] = **"O"** printer(Game)  
 flag = check(Game)  
 if flag:  
 print(**"Player2 WINS!!!"**)  
 return  
 else:  
 player1()  
  
  
player1()