# Tic Tac Toe

def tic\_tac\_toe():

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

end = False

win\_commbinations = ((0, 1, 2), (3, 4, 5), (6, 7, 8), (0, 3, 6), (1, 4, 7), (2, 5, 8), (0, 4, 8), (2, 4, 6))

#in this code the board starts with 0 so therefore 1 is equaled to 0

def draw():

print(board[0], board[1], board[2])

print(board[3], board[4], board[5])

print(board[6], board[7], board[8])

print()

# Creates the board for tic\_tac\_toe with numbers, therefore everytime the proper number is typed a an X and or O is placed

def p1():

n = choose\_number()

if board[n] == "X" or board[n] == "O":

print("You can't go there. Try again")

p1()

else:

board[n] = "X"

#player 1 chooses a number on the board to place their point at. For example player one places a X on 9. If the number is not in between 1-9 then the games tells you to place your point somewhere else.

def p2():

n = choose\_number()

if board[n] == "X" or board[n] == "O":

print("You can't go there. Try again")

p2()

else:

board[n] = "O"

#player 2 chooses a number on the board to place their point at. For example player two places a X on 9. If the number is not in between 1-9 then the games tells you to place your point somewhere else.

def choose\_number():

while True:

while True:

a = input()

try:

a = int(a)

a -= 1

if a in range(0, 9):

return a

else:

print("That's not on the board. Try again")

continue

except ValueError:

print("That's not a number. Try again")

continue

def check\_board():

count = 0

for a in win\_commbinations:

if board[a[0]] == board[a[1]] == board[a[2]] == "X":

print("Player 1 Wins!")

print("Congratulations!")

return True

if board[a[0]] == board[a[1]] == board[a[2]] == "O":

print("Player 2 Wins!")

print("Congratulations!")

return True

for a in range(9):

if board[a] == "X" or board[a] == "O":

count += 1

if count == 9:

print("The game ends in a Tie")

return True

while not end:

draw()

end = check\_board()

if end == True:

break

print("Player 1 choose where to place a cross")

p1()

print()

draw()

end = check\_board()

if end == True:

break

print("Player 2 choose where to place a nought")

p2()

print()

if input("Play again(if so type yes): ") == "yes":

print()

tic\_tac\_toe()

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