def print\_board(board):

print(f" {board[0]} | {board[1]} | {board[2]} ")

print("-----------")

print(f" {board[3]} | {board[4]} | {board[5]} ")

print("-----------")

print(f" {board[6]} | {board[7]} | {board[8]} ")

def is\_winner(board, player):

return ((board[0] == player and board[1] == player and board[2] == player) or

(board[3] == player and board[4] == player and board[5] == player) or

(board[6] == player and board[7] == player and board[8] == player) or

(board[0] == player and board[3] == player and board[6] == player) or

(board[1] == player and board[4] == player and board[7] == player) or

(board[2] == player and board[5] == player and board[8] == player) or

(board[0] == player and board[4] == player and board[8] == player) or

(board[2] == player and board[4] == player and board[6] == player))

def is\_board\_full(board):

return all(x != " " for x in board)

def get\_valid\_input(board):

while True:

user\_input = input("Enter a position (1-9): ")

if not user\_input.isdigit():

print("Please enter a valid number.")

elif int(user\_input) < 1 or int(user\_input) > 9:

print("Please enter a number between 1 and 9.")

elif board[int(user\_input) - 1] != " ":

print("That position is already taken.")

else:

return int(user\_input) - 1

def play\_game():

board = [" "] \* 9

players = ["X", "O"]

current\_player = players[0]

while True:

print\_board(board)

print(f"Player {current\_player}'s turn.")

position = get\_valid\_input(board)

board[position] = current\_player

if is\_winner(board, current\_player):

print\_board(board)

print(f"Player {current\_player} wins!")

break

elif is\_board\_full(board):

print\_board(board)

print("The game is a tie!")

break

else:

current\_player = players[1] if current\_player == players[0] else players[0]

play\_game()