***MAJOR PROJECT***

***CREATING A TIC-TAC-TOE GAME USING PYTHON***

def print\_board(board):

for row in board:

print(" | ".join(row))

print("-" \* 9)

def check\_win(board, player):

# Check rows, columns, and diagonals for a win

for i in range(3):

if all(board[i][j] == player for j in range(3)):

return True

if all(board[j][i] == player for j in range(3)):

return True

if all(board[i][i] == player for i in range(3)) or all(board[i][2 - i] == player for i in range(3)):

return True

return False

def is\_full(board):

# Check if the board is full

return all(board[i][j] != " " for i in range(3) for j in range(3))

def play\_game():

board = [[" " for \_ in range(3)] for \_ in range(3)]

player = "X"

print("Welcome to Tic-Tac-Toe!")

while True:

print\_board(board)

row = int(input(f"Player {player}, enter row (0, 1, 2): "))

col = int(input(f"Player {player}, enter column (0, 1, 2): "))

if board[row][col] == " ":

board[row][col] = player

if check\_win(board, player):

print\_board(board)

print(f"Player {player} wins!")

break

elif is\_full(board):

print\_board(board)

print("It's a draw!")

break

player = "O" if player == "X" else "X"

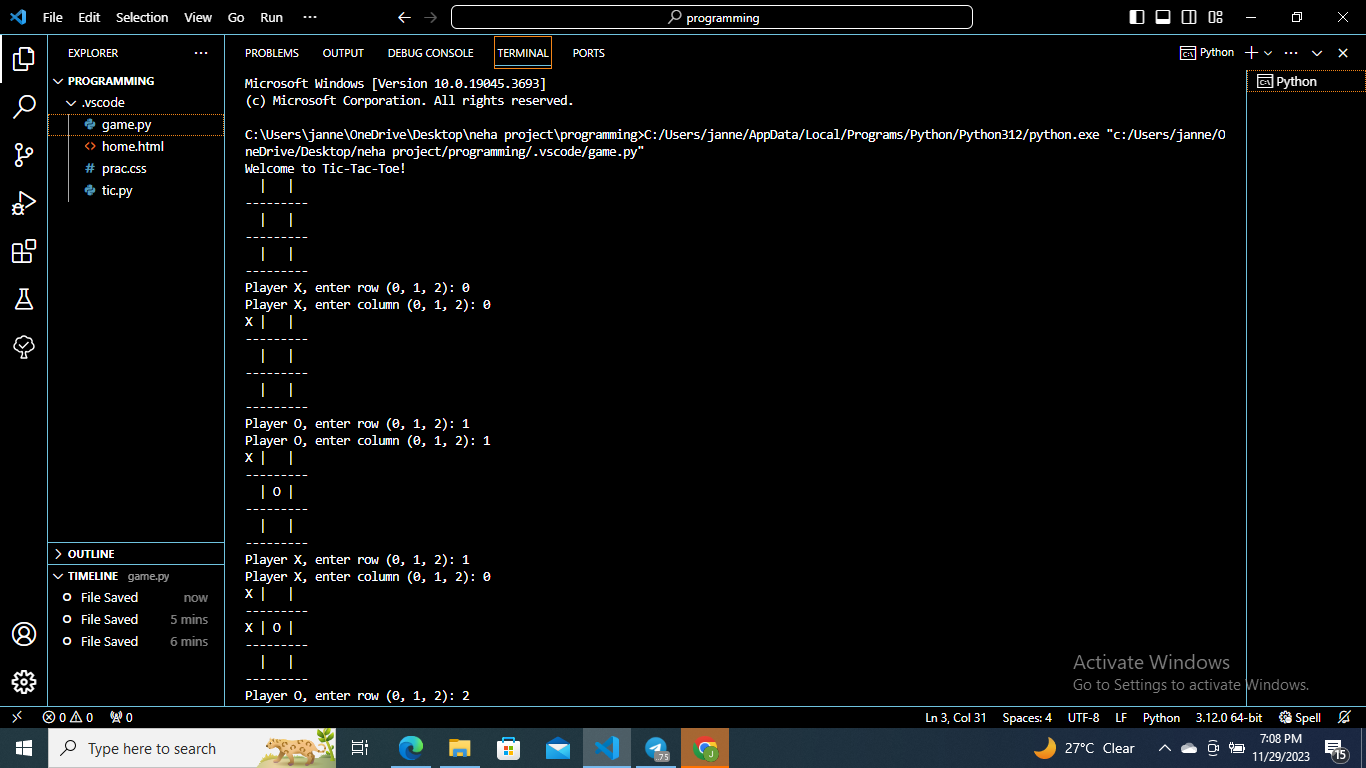
else:

print("That spot is already taken. Try again.")

if \_\_name\_\_ == "\_\_main\_\_":

play\_game()

**output:**

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