Final Task!

Tic, Tac, Toe

```
def print_board(board):
    for row in board:
        print(" | ".join(row))
        if row != board[-1]:
            print("-" * 9)


def check_winner(board, player):
    for row in board:
        if all([cell == player for cell in row]):
            return True

    for col in range(3):
        if all([board[row][col] == player for row 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_board_full(board):
    return all([cell != " " for row in board for cell in row])
```

```
def main():
    board = [[" " for _ in range(3)] for _ in range(3)]
    player = "X"

    while True:
        print_board(board)
        row = int(input(f"Player {player}, enter row (0, 1, or 2): "))
        col = int(input(f"Player {player}, enter column (0, 1, or 2): "))

        if row < 0 or row > 2 or col < 0 or col > 2 or board[row][col] != " ":
            print("Invalid move. Try again.")
            continue

        board[row][col] = player

        if check_winner(board, player):
            print_board(board)
            print(f"Player {player} wins! Congratulations!")
            break
        elif is_board_full(board):
            print_board(board)
            print("It's a draw!")
            break

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

```
if _name_ == "_main_":
    main()
```

Output:

```
  |   |
  |   |
  |   |
Player X, enter row (0, 1, or 2): 0
Player X, enter column (0, 1, or 2): 2
  |   | X
---------
  |   |
  |   |
Player O, enter row (0, 1, or 2): 0
Player O, enter column (0, 1, or 2): 0
O |   | X
---------
  |   |
  |   |
Player X, enter row (0, 1, or 2):
```