

Run a python code for tic tac toe game.**CODE**

```
import random

def print_board(board):
    for row in board:
        print(" | ".join(row))
    print("-" * 9)

def check_winner(board):
    # Check rows, columns, and diagonals for a winner
    for i in range(3):
        if board[i][0] == board[i][1] == board[i][2] != " ":
            return board[i][0]
        if board[0][i] == board[1][i] == board[2][i] != " ":
            return board[0][i]
    if board[0][0] == board[1][1] == board[2][2] != " ":
        return board[0][0]
    if board[0][2] == board[1][1] == board[2][0] != " ":
        return board[0][2]
    return None

def is_full(board):
    return all(cell != " " for row in board for cell in row)

def ai_move(board):
    empty_cells = [(i, j) for i in range(3) for j in range(3) if board[i][j] == " "]
    return random.choice(empty_cells)

def tic_tac_toe():
    board = [[" " for _ in range(3)] for _ in range(3)]
    player = "X" # Player is X, AI is O

    while True:
        print_board(board)

        # Player's turn
        row = int(input("Enter row (0-2): "))
        col = int(input("Enter column (0-2): "))

        if board[row][col] != " ":
            print("Cell already taken! Try again.")
            continue

        board[row][col] = player

        if check_winner(board):
            print_board(board)
```

```
        print("Congratulations! You win!")
        break
    if is_full(board):
        print_board(board)
        print("It's a tie!")
        break

    # AI's turn
    print("AI's turn...")
    row, col = ai_move(board)
    board[row][col] = "O"

    if check_winner(board):
        print_board(board)
        print("AI wins! Better luck next time.")
        break
    if is_full(board):
        print_board(board)
        print("It's a tie!")
        break

if __name__ == "__main__":
    tic_tac_toe()
```

```
In [1]: runfile('C:/Users/ALI/Downloads/untitled0.py', wdir='C:/Users/ALI/Downloads')
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|  |
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|  |
-----
Enter row (0-2): 1
Enter column (0-2): 2
AI's turn...
0 |  |
-----
|  | X
-----
|  |
-----
Enter row (0-2): 0
Enter column (0-2): 2
AI's turn...
0 |  | X
-----
0 |  | X
-----
|  |
```

```
Enter row (0-2): 2
Enter column (0-2): 0
AI's turn...
0 |  | X
-----
0 |  | X
-----
X | 0 |
-----
Enter row (0-2): 2
Enter column (0-2): 2
0 |  | X
-----
0 |  | X
-----
X | 0 | X
-----
Congratulations! You win!
```

“COMPLETED”