

1.Implement Tic-tac-toe game

```
import random
```

```
board = [' ' for _ in range(9)]
```

```
def print_board():
```

```
    row1 = ' | {} | {} | {} |'.format(board[0], board[1], board[2])
```

```
    row2 = ' | {} | {} | {} |'.format(board[3], board[4], board[5])
```

```
    row3 = ' | {} | {} | {} |'.format(board[6], board[7], board[8])
```

```
    print()
```

```
    print(row1)
```

```
    print(row2)
```

```
    print(row3)
```

```
    print()
```

```
def has_won(player):
```

```
    win_conditions = [(0, 1, 2), (3, 4, 5), (6, 7, 8), (0, 3, 6), (1, 4, 7), (2, 5, 8), (0, 4, 8), (2, 4, 6)]
```

```
    for condition in win_conditions:
```

```
        if board[condition[0]] == board[condition[1]] == board[condition[2]] == player:
```

```
            return True
```

```
    return False
```

```
def bot_move():
```

```
    for i in range(9):
```

```
        if board[i] == ' ':
```

```
            board[i] = 'O'
```

```
            if has_won('O'):
```

```
                return
```

```
            board[i] = 'X'
```

```
    for i in range(9):
```

```
        if board[i] == ' ':
```

```
            board[i] = 'X'
```

```
            if has_won('X'):
```

```
                board[i] = 'O'
```

```
            return
```

```

        board[i] = ' '
possible_moves = [i for i, x in enumerate(board) if x == ' ']
if possible_moves:
    move = random.choice(possible_moves)
    board[move] = 'O'
else:
    print("It's a draw!")
    exit()
def main():
    current_player = 'X'
    while True:
        print_board()
        if current_player == 'X':
            move = input("Player X, enter your move (1-9): ")
            if board[int(move) - 1] != ' ':
                print("Invalid move, try again.")
                continue
            board[int(move) - 1] = current_player
        else:
            bot_move()
            print("Bot O has made its move.")
        if has_won(current_player):
            print_board()
            if current_player == 'X':
                print("Player X wins! Congratulations!")
            else:
                print("Bot O wins! Better luck next time!")
            break
        if ' ' not in board:
            print_board()
            print("It's a draw!")

```

```
break
```

```
current_player = 'O' if current_player == 'X' else 'X'
```

```
if __name__ == '__main__':
```

```
    main()
```

```
| | | | |
| | | | |
| | | | |
```

```
Player X, enter your move (1-9): 1
```

```
| X | | | |
| | | | |
| | | | |
```

```
Bot O has made its move.
```

```
| X | O | | |
| | | | |
| | | | |
```

```
Player X, enter your move (1-9): 4
```

```
| X | O | | |
| X | | | |
| | | | |
```

```
Bot O has made its move.
```

```
| X | O | | |
| X | | | |
| O | | | |
```

```
Player X, enter your move (1-9): 5
```

```
| X | O | | |
| X | X | | |
| O | | | |
```

```
Bot O has made its move.
```

```
| X | O | | |
| X | X | O | |
| O | | | |
```

```
Player X, enter your move (1-9): 9
```

```
| X | O | | |
| X | X | O | |
| O | | X | |
```

```
Player X wins! Congratulations!
```