Connect4 Aladin Nour Mawasi 316172410

Instructions to run the game:

1.run the server: python3 server.py 127.0.0.1 65432

```
o nour@LAPTOP-@N85AJDI:~/connect4$ python3 server.py 127.0.0.1 65432
Listening on 127.0.0.1:65432
```

2.connect a client: python3 client.py 127.0.0.1 65432

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS 5

O nour@LAPTOP-0N8SAJDI:~/connect4$ python3 client.py 127.0.0.1 65432 Welcome to Connect 4!
Do you want to play against (1) another player or (2) the AI?
Enter 1 for another player, 2 for AI: 1

O nour@LAPTOP-0N8SAJDI:~/connect4$ python3 client.py 127.0.0.1 65432 Welcome to Connect 4!
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O nour@LAPTOP-0NSSAJDI:~/connect4$ python3 client.py 127.0.0.1 65432 Welcome to Connect 4!
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Enter 1 for another player, 2 for AI: 1
```

In the picture above each client picks option 1 which is to play the game against each other. After entering 1, the following screen will appear, and the client that connected to the server can make the first move as X.



Now player 1 picks column 4 as his first moves:



After that player 2 picks 0:



So on and so forth until there's a winner or the game ends in a draw.

Now another client can connect to the server to play vs the server:

```
O nour@LAPTOP-GN8SAJDI:~/connect4$ python3 client.py 127.0.0.1 65432

Welcome to Connect 4!

Do you want to play against (1) another player or (2) the AI?
Enter 1 for another player, 2 for AI: 2

Select AI difficulty level:

1: Easy
2: Hard
Enter difficulty level (1-2): 2
Enter the number of wins to play in the series (must be greater than 0): 3

Starting connection to ('127.0.0.1', 65432)

Connect_ex result: 115

Message queued to be sent: b'START_GAME 2 hard 3'
Enter your move (column number) or 'q' to quit: Sending: START_GAME 2 hard 3

Received: New AI game session created. Your turn or AI's turn depending on the game logic.

Received: New AI game session created. Your turn or AI's turn depending on the game logic.

Received response from server: New AI game session created. Your turn or AI's turn depending on the game logic.

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```

the player picks 2 to play vs ai, then picks 2 as a hard option, then picks 3 for the first to get 3 wins to win the match. After that the player can input any number 0-6 to start the first move:



The server responds immediately by placing O in the 5 coulmn.

Constraints:

The server accepts up to 6 connections at the same time.

Player that wants to connect to play vs the ai, should connect last, and not before any players who want to play against each other, because then the server won't assign the games correctly for some reason.