Description

In this project, you will implement a Tic-Tac-Toe game in a networked environment involving at least two computers. Your project has three milestones:

1. **Single-machine Computer-Human Gaming (30%)**: your program should allow a user to place the game with the computer. The computer does not have to have AI intelligence and could be a random gamer. However, your program should be able to determine win, lose, and tie.
2. **Machine-Machine Human Gaming (30%)**: your should implement socket program to allow two users to play game over the network and send their moves to each other through network socket.
3. **Machine-Machine Dual Mode Gaming (40%):** your program should allow one or multiple users to connect with the server and choose to play with a human or just game with a computer. It's up to your decision on how the design of the program should be. For example, you can let a user connect with the server. If its the only user, it will do computer-human gaming. If multiple users connect with the server, it will give the option to the user. The rest should follow either milestone 1 or 2 accordingly.

You may use the command line to display the game board.

Bonus point (15%): for implementing the hybrid mode for milestone 3, i.e., server provides IP address of peers to each other and a direct socket communication is established between the two peers. But computer-human gaming occurs between client and the server.

Bonus point (20%): for implementing graphic user interface for visualizing the game board.