Hangman Game

Description: Our game will allow a player, the client, to connect to a server in order to play hangman. Once the client connects to the server, the server will select a random word to guess the letters of. Once a word is chosen by the server, the client will enter a letter to guess which is then sent back to the server in order to compare if the guess was correct or not. If the character guessed is not contained in the word then the client will lose a try and will have to guess again. If the character guessed by the client is contained in the word, the client will see where in the word the letter appears and will guess again without losing a try. If the word is completed within a certain amount of tries the user wins, otherwise the client will lose if they use all their tries without guessing the word.

Server Specifications: The server program should listen on a socket, wait for a client to connect, then choose a word once the client connects. The server will receive a single char from the buffer each turn which will be used to compare to the word chosen. Afterwards, if the character is contained in the word, the server will pass the word back into the buffer with the letter filled in (i.e. if the server chooses "dog" as the word and receives a "d" from the client, the server will send "d _ _" in the buffer to the client and wait for another guess). If the word is not contained then the server will alert the client how many tries they have left (i.e. if the server chooses "dog" as the word and receives an "f" from the client, the server will send "Incorrect guess, 5 / 6 tries left" in the buffer to the client and wait for another guess). The client and server will repeat the process until the client wins or loses.

Client Specifications:
The client program should connect to the server program. Once the client and server have connected the game can begin. The client will read in a single char from the user, and send the char to the server. The char will be sent to the server to compare it to the word that was chosen by the server. The server will send back whether or not the client got the correct letter or not.The client's job is to keep sending letters until the client wins or loses the game. The client should also keep track of the chars entered by the user, so there's no risk of repeating the same letters.