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CS330 Final Project Plan

Week 1

- Project: Single-user game
- Game: Hangman, featuring the client guessing, letter-by-letter, a random word kept by the server, with a limited amount of wrong guesses allowed before losing the game. The game is won by guessing all letters in the word.
- Language: C

Week 2

- Client
    - Connects to server socket
    - Enter the game loop:
        - Server has chosen new word; reveal number of letters
        - Guess letter
        - Receive feedback (correct/incorrect)
        - Show the in-progress word
    - Player loses after 6 incorrect letter guesses
    - Player wins after guessing all letters in the word
    - Client terminates upon player choice to quit, otherwise start new game
- Server
    - Create socket, listen, and accept potential client
    - Enter game
        - Fetch random word and give information to client (number of letters)
            - Create 50-100 words to be used by the game, perhaps stored in a text file
        - Wait for client activity (guess letter)
        - Receive and process letter, send feedback (correct/incorrect), and update word for client if applicable
        - Loop guesses until client wins or loses
    - Server closes upon forceful termination (endlessly wait for new clients)
- Other info
    - Game is essentially turn-based
    - Nearly all information relating to the game and the client's progress should be stored on the server, and sent to the client when applicable
    - Number of wrong guesses will be clearly communicated
    - Client will always know:
        - The length of the word

        - Which letters they have guessed incorrectly, appearing in a dedicated section
        - Which letters they have guessed correctly, appearing in the uncompleted word
        - How many wrong guesses are left
    - Clients are not penalized for repeat guesses, both correct and incorrect