

CS330 Final Project

Single-User Hangman Game

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A dark blue diagonal gradient bar that starts from the bottom left corner and extends towards the top right corner, covering the lower half of the slide.

Premise

- I have created a single-user client/server program that simulates the word game Hangman.
- Hangman consists of guessing individual letters in a word without guessing incorrectly
- The program uses socket programming to send a randomized word for use in the game

Rules

- You guess individual letters in a word of known length one at a time.
- As you guess correct letters, they will appear in their proper places in the word, allowing you to guess more effectively.
- You have 6 incorrect guesses allowed, one for each body part. (Head, Body, 2 Arms, 2 Legs)

Win Condition:

- Win by guessing all of the letters in the word

Loss Condition

- Lose by guessing incorrectly a total of 6 times



In-game loss representation

How To Run

- The program is divided into 2 files: server.c and client.c
- These files are located in the /hangman/client-server directory in the project repository.
- Run vagrant in the *project* folder, and open SSH.
- In the SSH window, navigate to the client-server directory and use the command “make” to compile both programs using the included Makefile.

```
vagrant@cs330:/vagrant$ cd hangman/client_server/  
vagrant@cs330:/vagrant/hangman/client_server$ make  
gcc server.c -o server  
gcc client.c -o client
```

The server and client programs are compiled as “server” and “client” respectively.

How To Run

Server:

- Use “./server [port]” to run the server
 - Example: ./server 43210

```
vagrant@cs330:/vagrant/hangman/client_server$ ./server 43210
```

Server has been run

Client:

- Open a second SSH window in the same directory
- Use “./client [IP] [port]” to run the client
 - Example: ./client localhost 43210

```
vagrant@cs330:/vagrant/hangman/client_server$ ./client localhost 43210
Welcome to Hangman, a word guessing game.
Each game, a new word will be chosen and you must guess letters in the word one at a time.
You lose if you guess incorrectly 6 times.
You win if you guess the entire word.

Type [1] to play a new game or [0] to quit:
```

Client has been run, and the game is ready to start.

Game Demo

Code Overview