Assignment 2 User Manual

Server:
Note: Client and Server must be run in separate console windows and must share the same port #

To compile the server portion, type `gcc server.c -o server` into the console.
To run the server, type `./server` into the console.
After running the server, you will be prompted with 3 hashing options to choose from:

1. Sequential Index
    - This hashing method takes every new word and assigns an incremental key to it, so the string “Oh hello there” may be encoded as the following: “`0x0001 0x0002 0x0003`”
2. Word Sum
    - This hashing method takes every character in a word and adds their ascii values together. The sum of the ASCII values for each word is the encoded value for that particular word. The string “It is great to grate cheese” would be encoded as: “`0x00bd 0x00dc 0x0213 0x00e3 0x0213 0x026d`” A problem with this hash is “great” and “grate” both turn into `0x0213`.
3. Your Hash
    - This hashing method takes every character in a word and adds their ASCII values together, and then multiplies the sum of each character’s ASCII values by an incremental value.
    - For example the word Mary would be (M * 1) + (a * 2) + (r * 3) + (y * 4)
    - This helps solve the problem in Word Sum where “great” and “grate” are both encoded as the same number. Using Your Hash, “It is great to grate cheese” would be encoded as “`0x0131 0x014f 0x0642 0x0152 0x0637 0x0893`”. No repeating values!

Client:
Note: Client and Server must be run in separate console windows and must share the same port #

To compile the client portion, type `gcc client.c -o client` into the console.
To run the client, type `./client` into the console.
The server portion must already be running to run the client version, otherwise the client will not connect properly. After running the client, you will be prompted to enter a word. Once you press enter, the server will encode the word as you specified, and the client will display the encoded word in the console window.