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Assignment 1 Design Document, Part A

Question 1

The server I developed is in a partially working state. It currently compiles properly and runs. Adding a key, value pair works the first attempt, but after that the functionality breaks down. When trying to add a second pair, the server somehow rewrites the first value in the list using the new information, and simultaneously reports that the information is already in the server. How this is possible is beyond me, because these two actions are in separate if branches with return statements at the end of both of them. The server also currently completes the "getall" function after every operation, for debugging purposes. Whenever the "getvalue" function is called, the server somehow again re-writes the first pair, then determines that the term you were searching for is not in the server. Again, I don't know how this is possible as the only time a pair is written to the system is in the add method. Due to the lack of functionality in both add and getvalue, the removevalue function was never completed. Finally, there is an "exit" function that was written to shut the server down. All functions are summarized:

- Add
    - Works the first time the command is run on the server. Subsequent commands manage to re-write the first pair in the server, leading to unexpected operation
    - Recognized using the "add" statement followed by 2 words
- Getvalue
    - Re-writes the first pair in the list, to unspecified data. Always sends a failed message to netcat
    - Recognized using the "getvalue" statement followed by 1 word
- Getall
    - Works as expected, printing out each current pair stored in the server
    - Recognized by the "getall" statement.
- Remove
    - Not implemented, as the above functions are not operating correctly

Question 2

Not implemented.

Question 3

Not implemented.