

Readme

- 1) **Basic client-server:** For this problem we had to create a server and a client that would connect to each other. The server binds, listens, and accepts incoming connections. The client only connects to the server and takes in user input from user. When user enters a word, the server receives the message and returns the output in reverse order.
- 2) **Directory listing server:** For this problem we used the same server and client based on client 1. The user is able to send messages and the server receives the messages and returns the output in reverse order. Now, the only difference is that we had to execute `ls` that would output the current files and folders in the current directory. When you enter `ls`, the server receives it and `ls` is executed in server and returns the output of `ls` to client.
- 3) **Basic disk-storage system:** For this problem we used the same server and client but the only difference is that we extended the server where it is capable to act as as a basic disk storage system that simulates a physical disk. The simulated disk is organized by cylinder and sector. The server must be able to understand commands such as "`l, R c s, W c s l data`". If you run "`l`", The disk returns two integers representing the disk geometry. If you run `R c s`, read request for the contents of cylinder `c` sector `s`. If you run `W c s l data`: write request for cylinder `c` sector `s`. `l` is the number of bytes being provided with a maximum of 128. The data is those `l` bytes of data.
- 4) **File System Server** : Extends the server to be able to work as a flat file system that keeps track of files in a single directory.
- 5) **Directory Structure:** To make file system useful, add a directory structure with the following commands. Implement `mkdir` (`dirname`: create a directory of name `dirname`). Implement `cd` (`dirname`: change current working directory of `dirname`). Implement `pwd`(print the working directory name). Implement `rmdir`(remove the directory given. Throw an error if it is not present)