List

User	Client	Server
	Ask user to type a command	
type "L"		
	Send the following bytes to the server:	
	[L]	
	and shutdown channel for writing	
		Read byte ('L') to determine the action ↓
		Send the list of files if there are more than zero. If not, send "no files found." Close Serve Channel
	Display the message sent by the Server. Then close the TCP channel.	

Delete

User	Client	Server

ask user to type a command

Type "D"

Ask user to type a file name

Type the file name

↳ Send the following bytes to
Server: [D | File Name],
then shutdown the channel
for writing

Read the first byte ('D')
to determine what action
to perform
↓

Read the file name, delete
the file if exists
↓

Send "S" if file exists, "F"
if not; then close the
Serve Channel.

Display "operation Successful"
message if received "S," or
"operation failed" if received
"F." Then close TCP channel.

Rename

User	Client	Server

Ask user to type command

type "R" ←

→ Ask user to type file name

type file name ←

→ Ask user to type new file name

type new name ←

→ Send following bytes:

| R | filename | : | new name |

and shut down writing channel   Read first byte ('R') to determine

← action to perform.

Split the
names at the   read the file name; if it exists,
colon(:) →   rename it to the new name.

send "s" if file exists,
"f" if not. close the
serve channel.

Display "file name changed" ←
if 's' is recieved, or
"operation failed," if 'f'
is recieved. Close TCP
channel.

Download

user	client	server
	Ask user to type a command	
Type "G"		
	Ask user to type a file name	
Type the file name,		
	Send the following bytes:	

G	File Name

and Shutdown writing channel

Read first byte ('G') to determine what action to perform

↓

Read the file name, find file associated with file name

↓

Send the file if one was found, else send "F". Close the serve channel.

Display "operation Successful" message if a file was received, or "operation failed" if received "F". Then close TCP channel.

Upload

User	Client	Server

← Ask for command

type "U"

→ Ask for file name

type file name ←

→ if file exists, read
the file, if it doesn't,
display "file does not exist".

↓
send:

| U | file name | : | content | →

read first byte ('U')
↓
read file name and
create new file, and send
's'. If file already
← exists, send 'f'.

if 's' is recieved, display
"file uploaded." if 'f'
displayed, ask if user wants
to overwrite the existing file
←

optional {

type "Y" or "N"

→ send:

| Y | or | N | →   read byte. if "Y", replace
file contents. if "N", send
's', close serveChannel.

if 's', display: ←
"operation complete"

}