

## ===SYNOPSIS===

```
./server  
./client server_host
```

## ===DESCRIPTION===

multithreaded banking system simulation. one single server supports multiple clients communicating through TCP/IP network connections.

## ===IMPLEMENTATION===

see details in server.c client.c bank.c bank.h  
this assignment used uthash for bank to manage accounts

## ===EXPLANATION===

as to extra credits, I realized the first part: try to lock the mutex for the account every 2 seconds.

since there is restrict on the account name, the program only considers the names consisting of characters and digits as valid

all the details in the assignment.pdf have been implemented, including:

1. for each new connection, the session-acceptor thread spawns a separate client-service thread that communicates exclusively with the connected client.
2. the bank has maximum of 20 accounts
3. account name is a string up to 100 characters
4. bank server prints out a complete list of all accounts every 20 seconds
5. new accounts cannot be created while the bank is printing out the account information
6. the client and server programs can be invoked in any order
7. client processes that cannot find the server repeatedly try to connect every 3 seconds
8. command entry is throttled
9. all error info will echo back to client
10. clients will shut down when the server shuts down