

HOW TO USE

In c terminal:

- "make all" to make bankingServer and bankingClient.
- "make bankingServer" for bankingServer.
- "make bankingClient" for bankingClient.
- "make clean" to clean bankingServer and bankingClient.

- "./bankingServer <PORT>"

to start server. Make sure <PORT> is greater than 8000.

- "./bankingClient <MACHINE> <PORT>"

to start client. Make sure <MACHINE> AND <PORT> is the location of the server.

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DESIGN

- Everytime there is a new client, a new thread is created.
- All account information are stored in a global hashtable "bank".
- All accounts that are created and are printed for system diagonstic are placed in a global array "allAccounts".
- A binary semaphore "sem" is initized and used everytime "bank" is used (either for "create", "serve", "deposit" ...etc).
- Every 15 seconds, "allAccounts" is printed out for the system diagonstic. The semaphore is used to lock all the accounts.
- When a client enters "quit", their thread in the server is join()'ed.