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Subject: Systems Programming

Project – Bank System

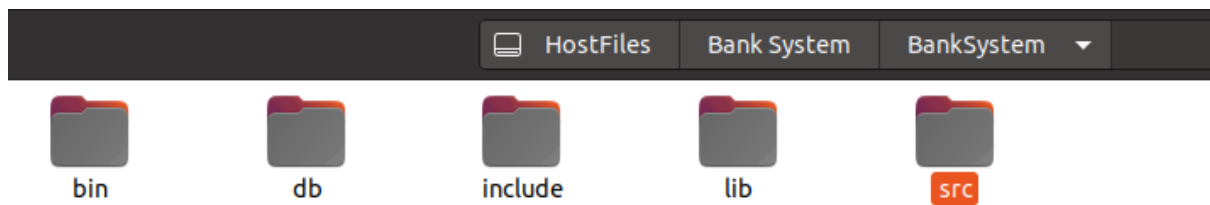
Project Definition/Goal:

The Bank System Project is a very basic simulation of Banking Systems used by employees of the bank. This system allows the bank employee/system user to create a Customer's account, to withdraw/deposit amount and display the list of details of all the customers who have account created with the bank.

Requirements:

- The employee should be able to create the user account.
- The system should update the details customer details to the database, which in this case is a file named "Customers.txt". This file contains 4 fields; Account Number, Customer Name, Customer Age, Current Balance. Account Number will be Auto Generated by the system and will be 15 digits long.
- Once the account is created, the customer should be allowed to withdraw/deposit amount from/to their accounts using the account number.
- Upon withdrawing/depositing the amounts, the database (Customers.txt) should also be updated, i.e. the Current Balance of the respective account holder should be updated.
- The system simulates a Client – Server simulation. So, all the transactions and account creations are done on the server side (Run – BankServer.out) after getting inputs from Client (Run – BankSystem.out).
- The System allows multiple clients to connect to the server at a time.
- The system also keeps track of all the transactions and activities done on the server for every customer's account in transactions folder.
- When the client tries to connect to the server, if the server is not running due to any reason, the client will exit the program after trying to connect for 10 seconds.
- Makefile is used to create all the libraries, object and out files.

Folder Structure:



Bin – contains the .out files (BankSystem.out and BankServer.out)

Db – contains the Database files (Customers.txt, AdminCredentials.txt and Transaction folder)

Include – contains header files

Lib – contains libraries.

Src – contains source file and obj folder (which contains the object files)

Assumptions:

- The Data entered into the client is in the correct format. For example: Name should be of the format FirstName LastName.
- Since, the system is used by bank employees, only one transaction is done on one account at a time.