

## Limitations of the Program

The program at this stage requires three text files to run properly. They are customers.txt, savings.txt, and checking.txt. Without those files the program won't be able to execute. It will just loop when the file pointer is returned NULL.

The program at this stage has no exception handling for user inputs. There are multiple menus where the user has to input a choice, and the program cannot yet handle incorrect inputs.

## How to Run

The program compiles normally with g++. Make sure the appropriate txt files are included in the folder with the code and executable in order to run properly.

When the program starts, it will display a menu and ask the user to input a choice. At this stage, the only inputs that will work are '1', to login as a customer, and '5', to exit the program. If 2-4 are entered it will display a message saying, "we haven't written that yet". Incorrect input will not be handled by the system. After you enter '1', you will be prompted for a username and password. There are a few usernames and passwords in the customers.txt file that will work, the easiest being "admin" for the username and "password" for the password (all lowercase). After you enter those login credentials, there will be a menu asking if you want to manage your checking or savings account. Enter '1' or '2' depending on which one you want to try, or enter '3' to exit the menu. After you click to manage an account, you will be asked if you want to withdraw or deposit money. You will be prompted to enter an amount. The program will take that amount and update the appropriate file. The program will then loop and ask if you want to manage your checking or savings account again. From there, you can choose to "exit menu" each time until the main menu displays again, and you can exit the program from there.

## Implementation

The system has only been tested with the correct input so far. There is no exception handling, other than finding NULL file pointers, in the system. We ran the program multiple times as a customer. We logged in using each username and password in the file, and deposited and withdrew from their checking and savings account to ensure the system was working properly. After changing the amount of money in an account, we checked the text file to make sure the file was updated appropriately. We ran each user multiple time to make sure the loops that keep the program running were functioning the way we wanted them to.

The only classes that are implemented so far are the Account class, and the Customer class. The Account class has two extended classes, Savings Account and Checking Account. Those extended classes don't have any separate methods yet, but will have a method to

deposit, withdraw, and display the balance. At this stage, those three things are implemented in the Account constructor.

The Customer class has methods to log in, display a menu, and get the username used to log in. An object of this class is created when the user successfully logs in as a customer using valid credentials, which can be found in customers.txt. For the final iteration, we will include classes for Employees and Managers.