

# Bank of Coders Banking System

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## Overview

For our final project we decided to do a simple C++ banking system for a bank called “Bank of Coders” that allows the user to do a few different transactions in the banking system. When the program first starts the user will be brought to a main menu listing 5 different actions the user can take:

1. Create an Account
2. Show account information
3. Show account balance
4. Withdraw
5. Deposit.

In order to complete any of the other transactions the user must first create an account. Once the account is created the user can access the other functions with their account number that allows them to view their account information or their account balance, as well as deposit or withdraw money from their account. If the user tries to complete other transactions before creating an account they will be given an error message that the account does not exist. After every action the user will be asked if they wish to continue or exit the system where 1 is to continue and 0 is to exit.

## Description of work allocation and code

The work was originally split by the different functions the bank system can perform with Rachel creating the Create an Account function, Alec creating the Deposit and Withdraw functions and Thatyana creating the Show account information and Show account balance functions. We then worked together to combine the functions into a class that could be used by the main function through the selections made in the main menu.

The code begins with the creation of a class called Account that consists of the following private variables: string accnom, string name, string email, int phonenom, and double balance. The functions were made public for use by the user through selection in the main menu. They included the setter and getter methods to be able to access and change the private variables. The main function consists of the main menu and the if operators that are in a while loop that retrieve the corresponding functions from the class. The Create an Account function uses cout and cin operators to ask for users to input the following information: Create an account number, enter client name, enter client email, enter phone number, enter initial deposit amount. All of the transaction functions ask for the user to input their account number and then use a for loop to retrieve that user’s information to be able to make changes to their account. The Deposit function asks the user to input an amount to deposit and stores it in a variable called dwAmt and adds it to the stored balance variable. The Withdraw function subtracts the users input amount variable dwAmt from the stored balance variable. The Show account information and Show account balance functions ask for a user to input their account number and then use for loops to search for the corresponding information. If there is a matching account number the system will output the requested information for the user but if there is no matching information the system will output a message that there is no matching account number. After every action the user will be asked if they wish to continue or exit the system where 1 is to continue and 0 is to exit. We created a banking system that is easy to modify and expand for the bank to be able to do other functions if it was needed.