

2020

The University of Lahore

Bank Management System

C++ Project

Instructor: Sir Adeem Ali Anwar



Project Participants



Asad Ali
Semester 4
Section B
70067557@student.uol.edu.pk



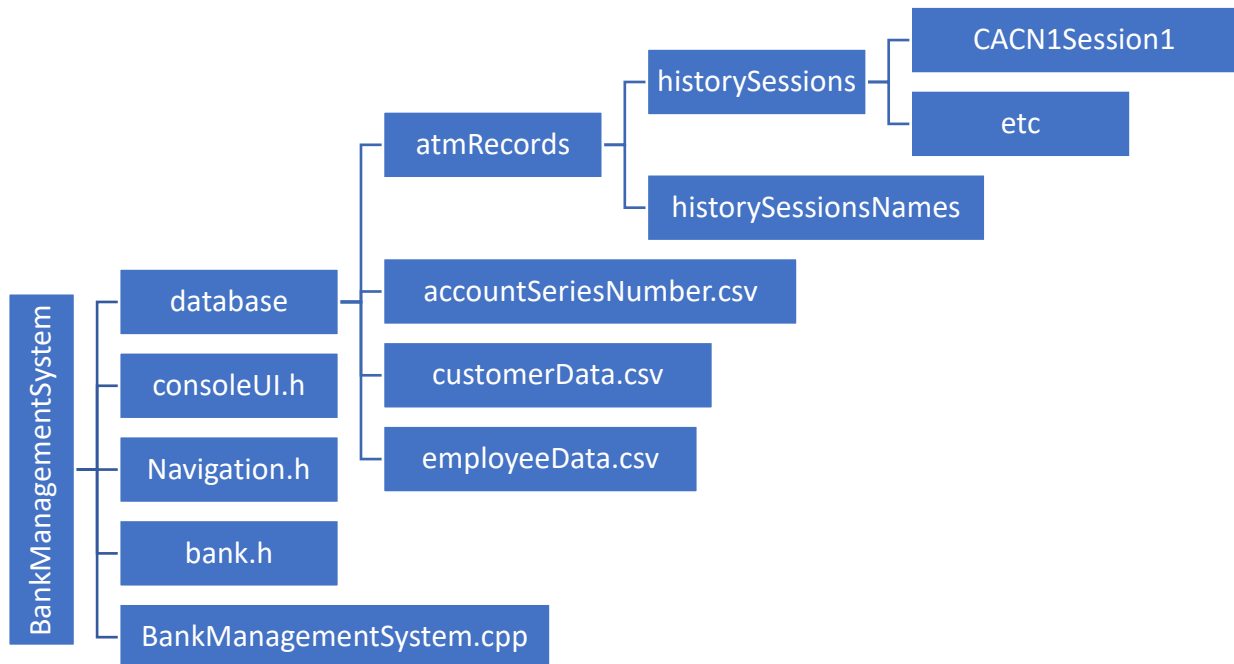
Malik Irfan
Semester 4
Section B
70066877@student.uol.edu.pk



Anas Ali
Smester 4
Section B
70067153@student.uol.edu.pk

Bank Management System

Basic File Structure



Brief Overview of Project Files

consoleUI.h

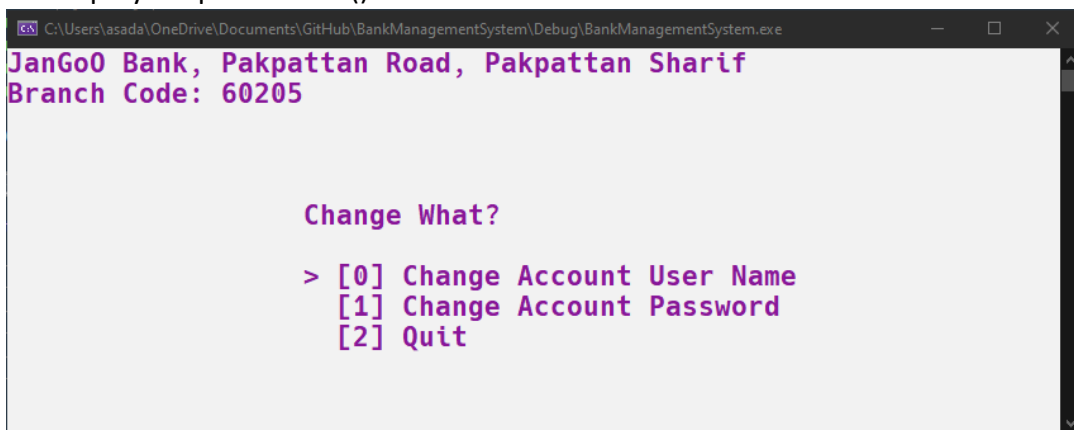
This header file includes following Global Functions:

- void readAccSeries()
Reads four values from “accountSeriesNumber.csv” file as string and converts, and store these values as an integer in num, num1, num2, num3 respectively.
 - “num” for customer account serial number (1,2, 3,...)
 - “num1” for employee account serial number (1,2,3,...)
 - “num2” for manager account serial number (1,2,3,...)
 - “num3” for ATM history session serial number (1,2,3,...)
- void writeAccSeries()
Write above mentioned four values separated by commas in “accountSeriesNumber.csv” fil.
- string getAccountUserName()
Takes string input of Account User Name from the user and returns.
- int getAccountPassword()
Takes integer input of Password from the user and returns.
- bool getAccountType()
Takes Boolean input of Account Type from the user and returns.
- string getAccountNumber()
Takes string input of Account Number from the user and returns.

- `string generateCustomerAccountNumber()`
Generates Customer Account Number as string in the form of "CACN#" where "CACN" is fix while "#" is a variable number.
- `string generateEmployeeAccountNumber()`
Generates Employee Account Number as string in the form of "EACN#" where "EACN" is fix while "#" is a variable number.
- `int getAmount()`
Takes integer input of Amount from user and returns.
- `char getFirstLetter()`
Takes character input of Single Letter form user and returns.

Navigation.h

- `int employeeUpdateMenu()`



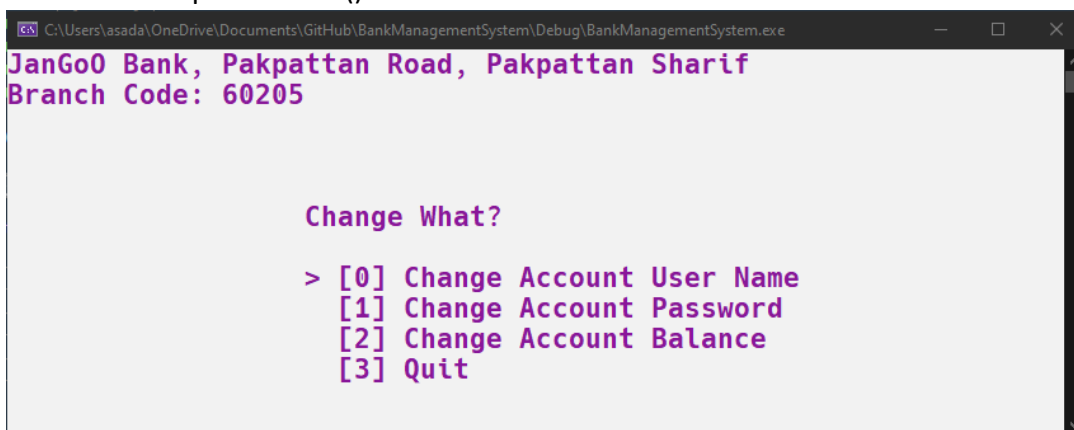
```

C:\Users\asada\OneDrive\Documents\GitHub\BankManagementSystem\Debug\BankManagementSystem.exe
JanGo0 Bank, Pakpattan Road, Pakpattan Sharif
Branch Code: 60205

Change What?

> [0] Change Account User Name
  [1] Change Account Password
  [2] Quit
  
```

- `int customerUpdateMenu()`



```

C:\Users\asada\OneDrive\Documents\GitHub\BankManagementSystem\Debug\BankManagementSystem.exe
JanGo0 Bank, Pakpattan Road, Pakpattan Sharif
Branch Code: 60205

Change What?

> [0] Change Account User Name
  [1] Change Account Password
  [2] Change Account Balance
  [3] Quit
  
```

- `int managerMiniMenu_0()`
- `int managerMiniMenu_1()`
- `int managerMiniMenu_2()`
- `int managerMiniMenu_3()`
- `int managerMiniMenu_4()`

➤ int managerMiniMenu_5()

```
C:\Users\asada\OneDrive\Documents\GitHub\BankManagementSystem\Debug\BankManagementSystem.exe
JanGo0 Bank, Pakpattan Road, Pakpattan Sharif
Branch Code: 60205

Select Catagory

> [0] Employee
   [1] Customer
   [2] Quit
```

➤ int managerSubMenu()

```
C:\Users\asada\OneDrive\Documents\GitHub\BankManagementSystem\Debug\BankManagementSystem.exe
JanGo0 Bank, Pakpattan Road, Pakpattan Sharif
Branch Code: 60205

Select Catagory

> [0] Employee
   [1] Customer
   [2] Quit
```

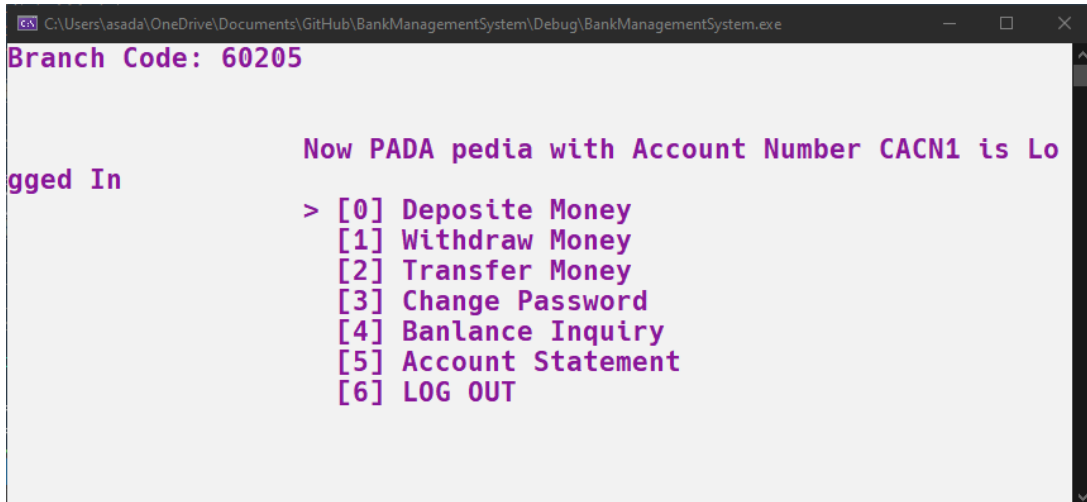
➤ int bankSubMenu()

```
C:\Users\asada\OneDrive\Documents\GitHub\BankManagementSystem\Debug\BankManagementSystem.exe
JanGo0 Bank, Pakpattan Road, Pakpattan Sharif
Branch Code: 60205

Employee Logged In

> [0] Add Account
   [1] Remove Account
   [2] Modify Account
   [3] Record Inquiry
   [4] Account Inquiry
   [5] Search Accounts
   [6] LOG OUT
```

- `int atmSubMenu(CustomerAccount* loggedInAccountNumber)`

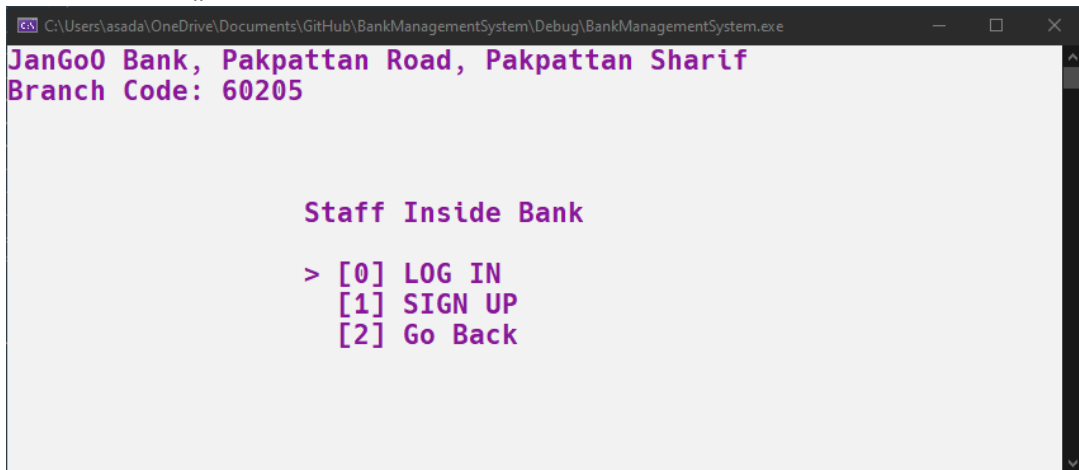


```
C:\Users\asada\OneDrive\Documents\GitHub\BankManagementSystem\Debug\BankManagementSystem.exe
Branch Code: 60205

Now PADA pedia with Account Number CACN1 is Lo
gged In

> [0] Deposit Money
   [1] Withdraw Money
   [2] Transfer Money
   [3] Change Password
   [4] Banlance Inquiry
   [5] Account Statement
   [6] LOG OUT
```

- `int bankMenu()`

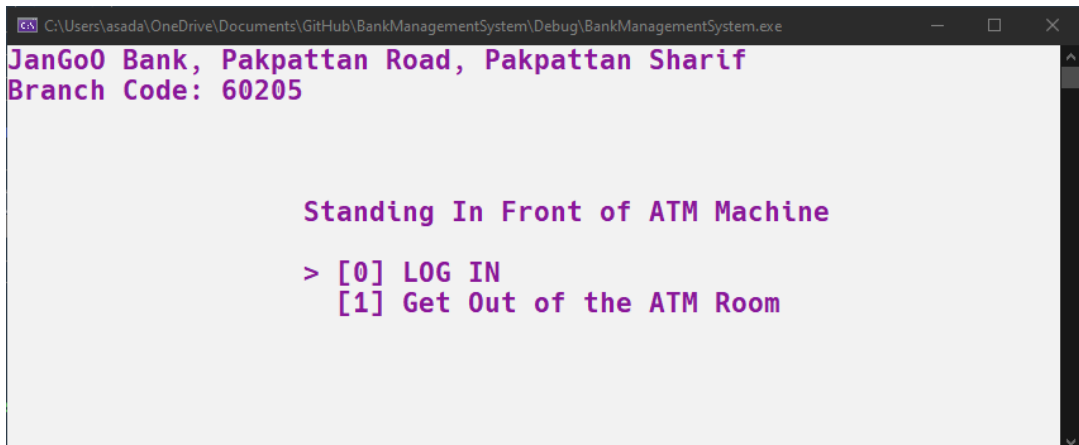


```
C:\Users\asada\OneDrive\Documents\GitHub\BankManagementSystem\Debug\BankManagementSystem.exe
JanGo0 Bank, Pakpattan Road, Pakpattan Sharif
Branch Code: 60205

Staff Inside Bank

> [0] LOG IN
   [1] SIGN UP
   [2] Go Back
```

- `int atmMenu()`

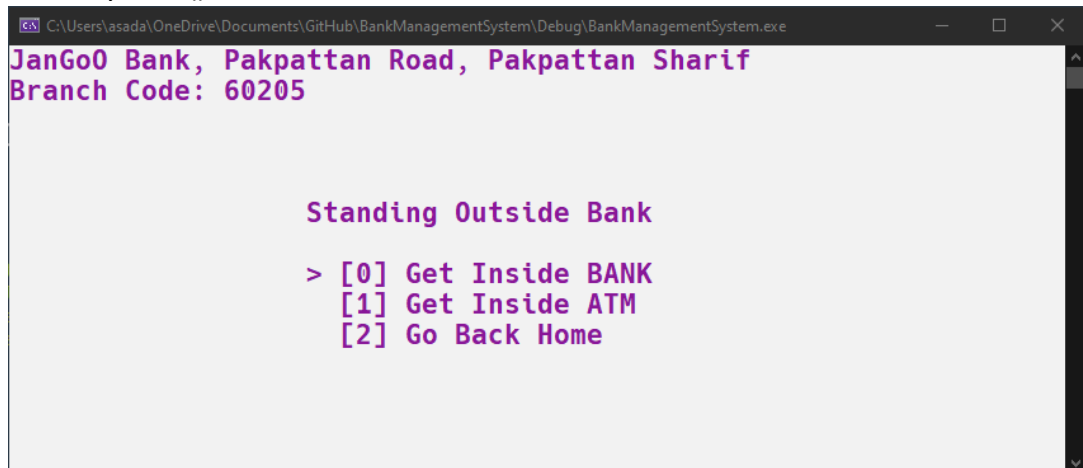


```
C:\Users\asada\OneDrive\Documents\GitHub\BankManagementSystem\Debug\BankManagementSystem.exe
JanGo0 Bank, Pakpattan Road, Pakpattan Sharif
Branch Code: 60205

Standing In Front of ATM Machine

> [0] LOG IN
   [1] Get Out of the ATM Room
```

➤ int entryPoint()



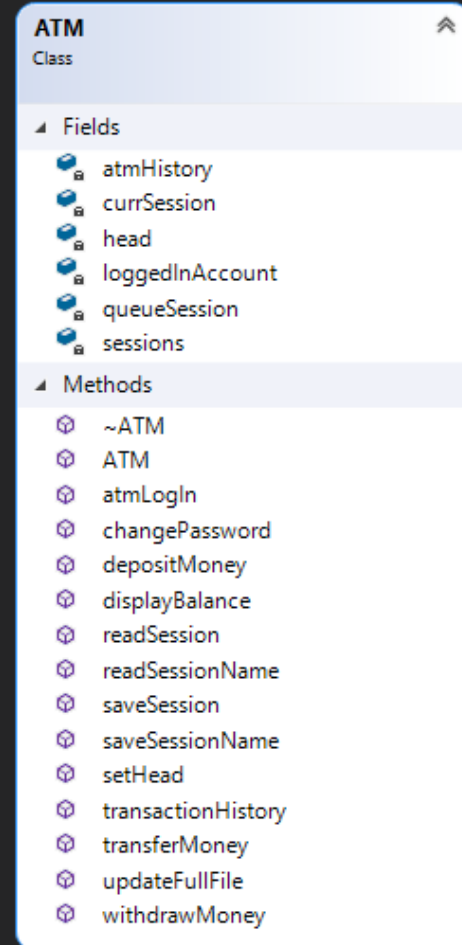
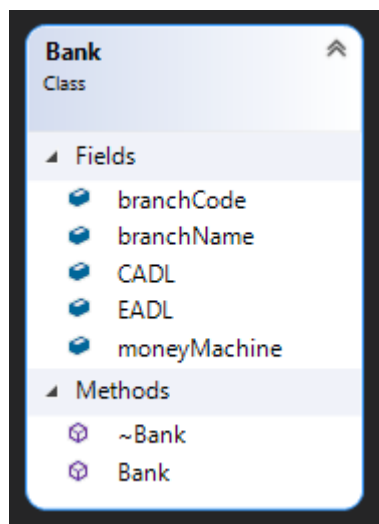
```
C:\Users\asada\OneDrive\Documents\GitHub\BankManagementSystem\Debug\BankManagementSystem.exe
JanGo0 Bank, Pakpattan Road, Pakpattan Sharif
Branch Code: 60205

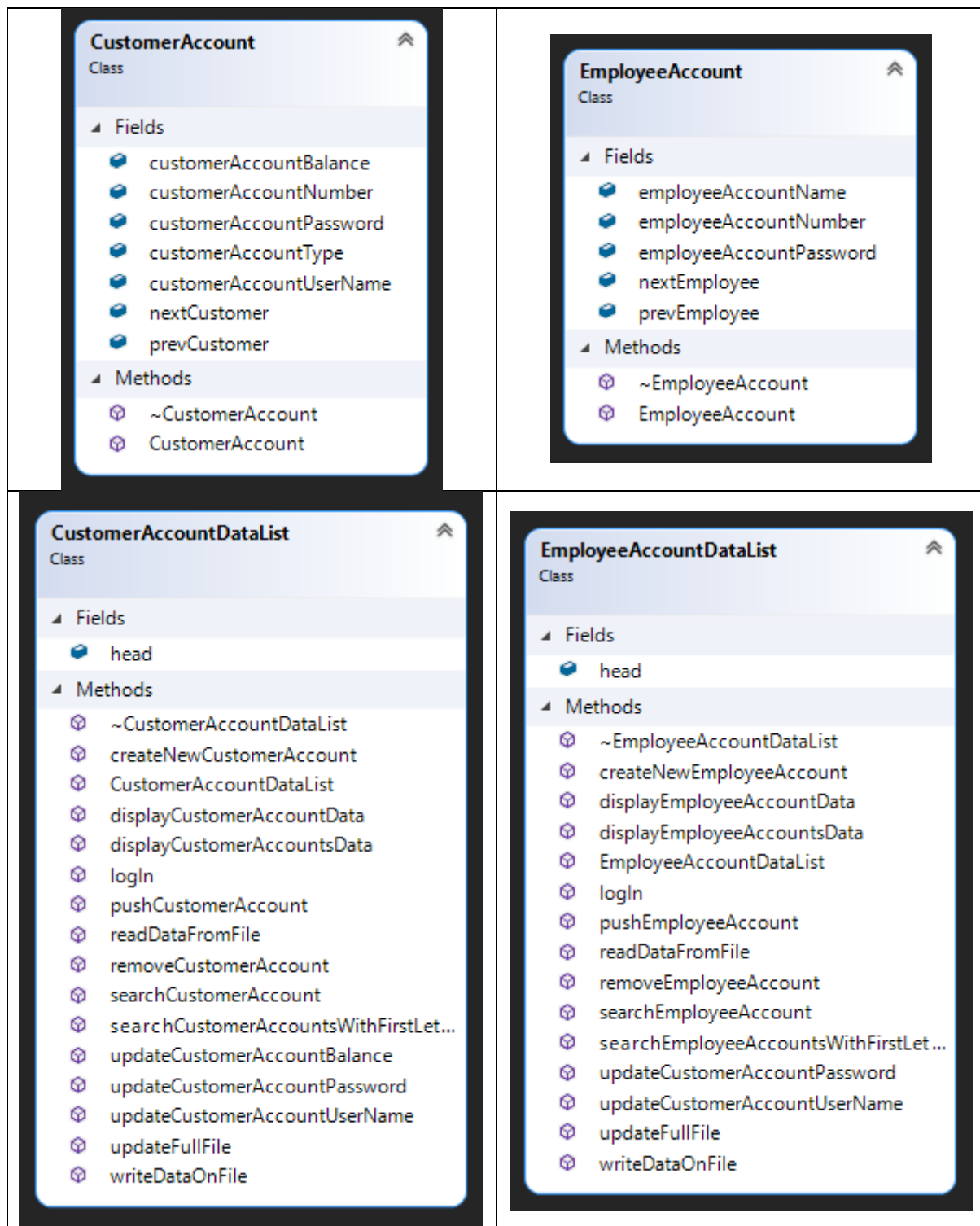
Standing Outside Bank

> [0] Get Inside BANK
[1] Get Inside ATM
[2] Go Back Home
```

Bank.h

- class CustomerAccount {};
- class CustomerAccountDataList{};
- class EmployeeAccount{};
- class EmployeeAccountDataList{};
- class ATM{};
- class Bank();





BankManagementSystem.cpp

This file include build-in C++ libraries required in the project. And it also includes above mentioned header files.

The main() function simply calls the entryPoint() function written in Navigation.h file.