Hello, my name is MB and this is a brief document regarding the nature of my midterm program.

The program is a rudimentary banking simulation program that prompts the user to log in to one of three different accounts, then allows the user to view the info (name, account number, account type, current balance, account status) associated with the chosen account, make a purchase or deposit, or sign out/exit program. The program also saves the transaction history to a text file.

The user signs in by entering the account numbers 1001, 1002 or 1003. This information is also provided in the readme.file in my Github repository.

The concepts I used here are listed below:
Arrays
Binary Search Algorithm
Booleans
Classes & Objects
Constants & Data Types
Constructors
File Input & Output
Header Files
Loops
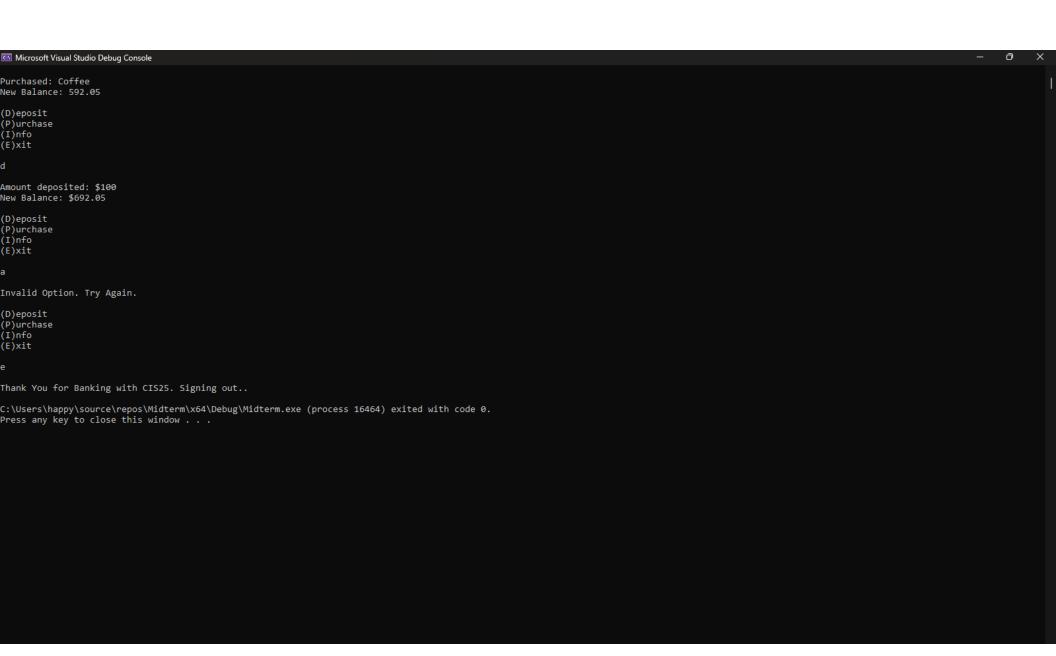Member Functions
Pointers
Strings

I faced two challenges while writing this code. The first was structure and the second was debugging, then revising my code for any unnecessary lines.

Currently I am not very knowledgeable about basic coding including using multiple classes and files, so it was a bit difficult in the beginning to decide where the rest of the code should go after creating the BankAccount.h, BankAccount.cpp and main.cpp files without cluttering any of them. Eventually, I decided to make additional files for the code associated with the banking system.

The other issue - revision was easily fixable in hindsight, but it was much more difficult at the time. I was testing out whether or not I needed to include some header files for every single file, which led to me deleting 'using namespace std;' from the BankAccount.h file. That was a huge mistake that caused over 40 errors and I didn't realize that was the issue until I started undoing every action in every file. Unless you're extremely sure you don't need it, always use 'using namespace std;' !!!

Finally, screenshots of the program running are provided on the pages below:

```
Microsoft Visual Studio Debug Console                           —  □  ✕

Welcome to the CIS25 Online Banking System.

Please Enter your Account Number to Log In: 1003

(D)eposit
(P)urchase
(I)nfo
(E)xit

i

-----Account Info-----

Account Holder: Carol

Account Number: 1003
Account Type: S

Account Status: Active
Balance: $600

(D)eposit
(P)urchase
(I)nfo
(E)xit

p

Purchased: Coffee
New Balance: 592.05

(D)eposit
(P)urchase
(I)nfo
(E)xit

d

Amount deposited: $100
New Balance: $692.05

(D)eposit
(P)urchase
(I)nfo
(E)xit

a

Invalid Option. Try Again.

(D)eposit
(P)urchase
(I)nfo
(E)xit
```

```
Purchased: Coffee
New Balance: 592.05

(D)eposit
(P)urchase
(I)nfo
(E)xit

d

Amount deposited: $100
New Balance: $692.05

(D)eposit
(P)urchase
(I)nfo
(E)xit

a

Invalid Option. Try Again.

(D)eposit
(P)urchase
(I)nfo
(E)xit

e

Thank You for Banking with CIS25. Signing out..

C:\Users\happy\source\repos\Midterm\x64\Debug\Midterm.exe (process 16464) exited with code 0.
Press any key to close this window . . .
```

```
Microsoft Visual Studio Debug Console

Welcome to the CIS25 Online Banking System.

Please Enter your Account Number to Log In: 1

Account not found. Please Refer to the README file for Further Help. Exiting.

C:\Users\happy\source\repos\Midterm\x64\Debug\Midterm.exe (process 25540) exited with code 0.
Press any key to close this window . . .
```

```
Microsoft Visual Studio Debug Console

Welcome to the CIS25 Online Banking System.

Please Enter your Account Number to Log In: 1001

(D)eposit
(P)urchase
(I)nfo
(E)xit

i

-----Account Info-----

Account Holder: Alice

Account Number: 1001
Account Type: S

Account Status: Active
Balance: $300

(D)eposit
(P)urchase
(I)nfo
(E)xit

d

Amount deposited: $100
New Balance: $400

(D)eposit
(P)urchase
(I)nfo
(E)xit

p

Purchased: Coffee
New Balance: 392.05

(D)eposit
(P)urchase
(I)nfo
(E)xit

e

Thank You for Banking with CIS25. Signing out..

C:\Users\happy\source\repos\Midterm\x64\Debug\Midterm.exe (process 10648) exited with code 0.
Press any key to close this window . . .
```

```
Microsoft Visual Studio Debug Console
Welcome to the CIS25 Online Banking System.

Please Enter your Account Number to Log In: 1002

(D)eposit
(P)urchase
(I)nfo
(E)xit

i

-----Account Info-----

Account Holder: Bob

Account Number: 1002
Account Type: C

Account Status: Active
Balance: $450

(D)eposit
(P)urchase
(I)nfo
(E)xit

d

Amount deposited: $100
New Balance: $550

(D)eposit
(P)urchase
(I)nfo
(E)xit

p

Purchased: Coffee
New Balance: 542.05

(D)eposit
(P)urchase
(I)nfo
(E)xit

e

Thank You for Banking with CIS25. Signing out..

C:\Users\happy\source\repos\Midterm\x64\Debug\Midterm.exe (process 25508) exited with code 0.
Press any key to close this window . . .
```