

# CPE 100 Introduction to Computer Programming

## Laboratory Exercise 12

### Details

1. In the header file **module1.h**, you must define the **ACCOUNT** structure and implement two functions which are **loadAccount** and **authentication**.
2. **loadAccount** function reads all data from text file **atmDB.txt**, into an array of **ACCOUNT** structures. It receives an argument **ACCOUNT acct[]** and returns a number of accounts.
3. **authentication** function receives and checks account id and password. The user can enter the account id and password three times if the account id or password is incorrect. This function takes five arguments as follows
  1. **ACCOUNT acct[]** is all accounts in the database.
  2. **int n** is the number of accounts.
  3. **char id[]** is the account id that the user enters.
  4. **char pwd[]** is the password that the user enters.
  5. **ACCOUNT \*loginAcct** is the verified login account.
4. In the header file **module2.h**, you must implement two functions **depositMoney** and **updateAccount**.
5. **depositMoney** function receives the deposit amount from the user. Then, the account balance is updated by adding the deposit amount. After that, the **enquireBalance** function is called for showing the account balance. This function takes three arguments which are **ACCOUNT acct[]**, **ACCOUNT loginAcct**, and **int n**.
6. **updateAccount** function writes the updated account data into the text file **atmDB.txt**. This function takes two arguments which are **ACCOUNT acct[]** and **int n**.
7. In the header file **module3.h**, you must implement three functions for selecting transactions, withdrawing money, and enquiring about account balance.
8. **withdrawMoney** function receives the withdrawal amount from the user, Then, the account balance is updated by subtracting the withdrawal amount. After that, the **enquireBalance** function is called for showing the account balance. This function takes three arguments which are **ACCOUNT acct[]**, **ACCOUNT loginAcct**, and **int n**.
9. **selectTransaction** function shows the menu for selecting transactions. The user can enter only four numbers which are 1, 2, 3, and 4. Input 1 is for withdrawing money. Input 2 is for depositing money. Input 3 is for enquiring about balance. Input 4 is for exiting the program. This function takes three arguments which are **ACCOUNT acct[]**, **ACCOUNT loginAcct**, and **int n**.
10. **enquireBalance** function shows account id, account name, and balance. This function takes **ACCOUNT acct** which is the login account.
11. The main function will call all functions in three header files and control the process in the atm system.