



Project Report

Name Of Project: Bank Account Management System.

Course Code: CSE - 214.

Course Title: Data Structure Laboratory.

Submitted To

Md. Emon Islam Rabbi

Lecturer, Department of CSE

City University

Submitted By

Hasibul Islam Nirob

ID: 182482526

Batch: 49th (B)

BSC in CSE (Day)

Remarks

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Contents

Index	Page No
1.1 Introduction	03
1.2 Using Requirement	03
1.3 Feature	03
1.4 Methodology	04
1.5 Implementation	05
1.5 .1 Create Account for New User	05
1.5 .2 For Print All Data	07
1.5 .3 For Cash In, Money Added User Account	08
1.5 .4 For Cash Out, Money Removed User Account	10
1.5 .5 For Sorting User Data, Sorted By User AC Number	12
1.5 .6 For Searching User Information	15
1.5 .7 For Update User Information	16
1.5 .8 Delete Any Account	19

1.1 Introduction:

Bank account management system using Data Structures some operation in this mini project. This project implement using different operation, and I think this project looking different for using operation of Data Structure. This project used different functions, how to create new account for a new user and insert user information and, how to you cash-in or balance added specific user account and, how to you cash-out or balance removed specific user account and, how to you sorted data ascending order and, searching specific user all information and, how to you delete the old account.

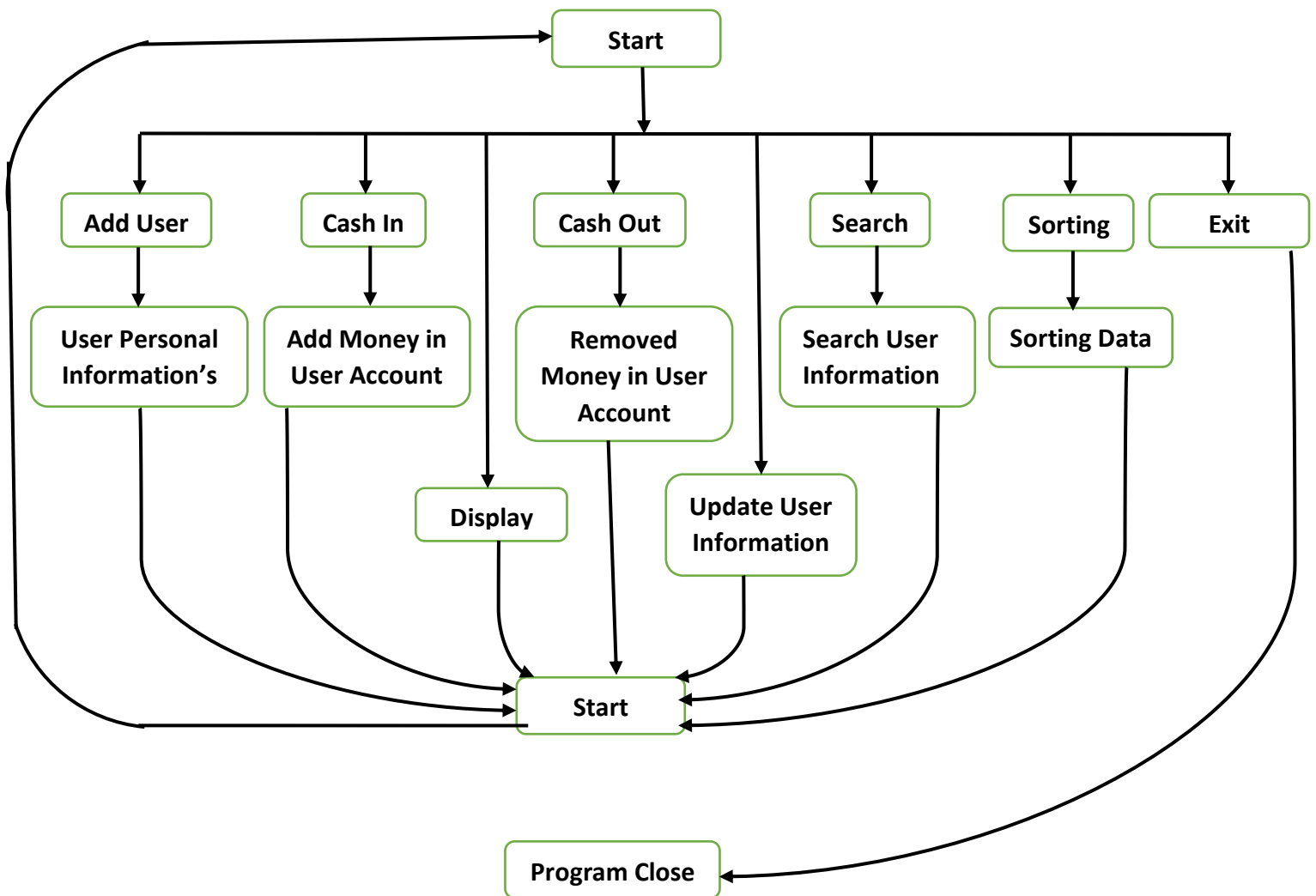
1.2 Using Requirement:

- C / C++ Programming Language.
- Linked List.
- Queue
- Stack.
- Searching.
- Shorting

1.3 Feature:

- 1.** Add User.
- 2.** Cash In.
- 3.** Cash Out.
- 4.** Searching User Information.
- 5.** Update User Information.
- 6.** Delete User Account.
- 7.** Shorting Data.

1.4 Methodology:



1.5 Implementation:

I have complete my project through a lot of steps, which I have already mentioned in the feature section. The features that have been used in my project, Some of the default option will be given with the program run, this options are given below:

1. Create Account for New User.
2. For Print All Data.
3. For Cash In, Money Added User Account.
4. For Cash Out, Money Removed User Account.
5. For Delete User.
6. For Sorting User Data, Sorted By User AC Number.
7. For Searching User Information.
8. For Update User Information.
9. For Exit This Program.

Step by step the work and details of options were described.

1.5.1 Create Account for New User: This function showed how to create a new account for new user. Here the user will create an account with his/her proper information, and he/she will be given a unique account number.

```
Enter your choice: 1

Enter User Account No    : 1001
Enter User Name          : Hasibul Islam Nirob
Enter User Mail          : nirob@gmail.com
Enter User Mobile No     : 01759011742
Add Money Creating time  : 5050

New Account Created Successfully !!
```

Multiple account can't be created with the same account number, because the account number is a user identity.

```
Enter your choice: 1

Enter User Account No    : 1001

Account Number Already Created ..!!
Please Try Again !!
```

If we will try a different account number so, Account created successful.

```
Enter your choice: 1
```

```
Enter User Account No : 1002
```

```
Enter User Name       : Emon Islam Rabbi
```

```
Enter User Mail       : rabbi@gmail.com
```

```
Enter User Mobile No  : 01800000000
```

```
Add Money Creating time : 10500
```

```
New Account Created Successfully !!
```

1.5 .2 For Print All Data: This Function will display all data.

Enter your choice: 2

User Name : Motiul Rahman
User Mail : moti@gmail.com
User Mobile No : 017555555
User Account No : 1007
Total Amount : 7000.00

User Name : Samiul Islam Ponik
User Mail : samiul@gmail.com
User Mobile No : 01712121212
User Account No : 1003
Total Amount : 4500.00

User Name : Mrk Pullock
User Mail : mrk@gmail.com
User Mobile No : 0132222222
User Account No : 1009
Total Amount : 6500.00

User Name : Alif Khan Rifat
User Mail : alif@gmail.com
User Mobile No : 0181111111
User Account No : 1005
Total Amount : 5000.00

```
User Name      : Emon Islam Rabbi
User Mail      : rabbi@gmail.com
User Mobile No : 01800000000
User Account No : 1002
Total Amount   : 10500.00
```

```
User Name      : Hasibul Islam Nirob
User Mail      : nirob@gmail.com
User Mobile No : 01759011742
User Account No : 1001
Total Amount   : 5050.00
```

1.5 .3 For Cash In, Money Added User Account:

The function of this function is to deposit money in the user's account. If the user's account is created then the money will be deposited and if not then it will not be deposited

Before Deposit:

```
User Name      : Hasibul Islam Nirob
User Mail      : nirob@gmail.com
User Mobile No : 01759011742
User Account No : 1001
Total Amount   : 5050.00
```

```
User Name      : Samiul Islam Ponik
User Mail      : samiul@gmail.com
User Mobile No : 01712121212
User Account No : 1003
Total Amount   : 4500.00
```


After Deposit:

```
Enter your choice: 3
  Enter User Bank Account Number : 1001
  Add Money   : 5000

  Cash In Successful !!

  After Cash In...
  Update Balance...

  User Name      : Hasibul Islam Nirob
  User Account No : 1001
  New Amount is  : 10050.00
```

```
Enter your choice: 3
  Enter User Bank Account Number : 1003
  Add Money   : 6000

  Cash In Successful !!

  After Cash In...
  Update Balance...

  User Name      : Samiul Islam Ponik
  User Account No : 1003
  New Amount is  : 10500.00
```

1.5 .4 For Cash Out, Money Removed User Account:

This function allows the user to withdraw money deposited in his account. If the amount of money withdrawn from the deposit is more than the money cannot be withdrawn.

Before Cash Out:

```
User Name      : Emon Islam Rabbi
User Mail      : rabbi@gmail.com
User Mobile No : 01800000000
User Account No : 1002
Total Amount   : 10500.00
```

```
User Name      : Motiul Rahman
User Mail      : moti@gmail.com
User Mobile No : 017555555
User Account No : 1007
Total Amount   : 7000.00
```

After Cash Out:

```
Enter your choice: 4
Enter User Bank Account Number : 1002
Cash Out Money Amount : 5500
Cash Out Successful !!
```

```
After Cash Out...
Update Balance...
```

```
User Name      : Emon Islam Rabbi
User Account No : 1002
New Amount is   : 5000.00
```

```
Enter your choice: 4
Enter User Bank Account Number : 1007
Cash Out Money Amount : 5000
Cash Out Successful !!
```

```
After Cash Out...
Update Balance...
```

```
User Name      : Motiul Rahman
User Account No : 1007
New Amount is   : 2000.00
```

If Over Than Cash Out Money:

```
User Name      : Mrk Pullock
User Mail      : mrk@gmail.com
User Mobile No : 0132222222
User Account No : 1009
Total Amount   : 6500.00
```

Enter your choice: 4

```
Enter your choice: 4
Enter User Bank Account Number : 1009
Cash Out Money Amount : 7000
Amount Is Over Than Recent Money
```

Choose one from the below options

1.5 .5 For Sorting User Data, Sorted By User AC Number.

This function sorts random data in a certain order

Before Sorted:

User Name : Motiul Rahman
User Mail : moti@gmail.com
User Mobile No : 017555555
User Account No : 1007
Total Amount : 2000.00

User Name : Samiul Islam Ponik
User Mail : samiul@gmail.com
User Mobile No : 01712121212
User Account No : 1003
Total Amount : 10500.00

User Name : Mrk Pulock
User Mail : mrk@gmail.com
User Mobile No : 0132222222
User Account No : 1009
Total Amount : 6500.00

User Name : Alif Khan Rifat
User Mail : alif@gmail.com
User Mobile No : 0181111111
User Account No : 1005
Total Amount : 5000.00

User Name : Emon Islam Rabbi
User Mail : rabbi@gmail.com
User Mobile No : 01800000000
User Account No : 1002
Total Amount : 5000.00

User Name : Hasibul Islam Nirob
User Mail : nirob@gmail.com
User Mobile No : 01759011742
User Account No : 1001
Total Amount : 10050.00

After Sorted:

```
9. For Exit This Program
```

```
Enter your choice: 6
```

```
Data Sorted Successful !!!
```

Output:

```
Enter your choice: 2
```

```
User Name      : Hasibul Islam Nirob  
User Mail      : nirob@gmail.com  
User Mobile No : 01759011742  
User Account No : 1001  
Total Amount   : 10050.00
```

```
User Name      : Emon Islam Rabbi  
User Mail      : rabbi@gmail.com  
User Mobile No : 01800000000  
User Account No : 1002  
Total Amount   : 5000.00
```

```
User Name      : Samiul Islam Ponik  
User Mail      : samiul@gmail.com  
User Mobile No : 01712121212  
User Account No : 1003  
Total Amount   : 10500.00
```

```

User Name      : Alif Khan Rifat
User Mail      : alif@gmail.com
User Mobile No : 0181111111
User Account No : 1005
Total Amount   : 5000.00

```

```

User Name      : Motiul Rahman
User Mail      : moti@gmail.com
User Mobile No : 0175555555
User Account No : 1007
Total Amount   : 2000.00

```

```

User Name      : Mrk Pullock
User Mail      : mrk@gmail.com
User Mobile No : 0132222222
User Account No : 1009
Total Amount   : 6500.00

```

1.5 .6 For Searching User Information.

With this function any user can be found using his account number

If Have not an account:

```

Enter your choice: 7
Please Enter Account No For Search Data : 102
Data Not Found !!

```

If have an account:

```

5: For Exit This Program

Enter your choice: 7
Please Enter Account No For Search Data : 1002

User Name      : Emon Islam Rabbi
User Mail      : rabbi@gmail.com
User Mobile No : 01800000000
User Account No : 1002
Total Money     : 5000.00

```

1.5 .7 For Update User Information.

This update function can be updated by changing any user's information. The purpose of adding this feature is to add the right information by removing the wrong information of the user.

Before Update:

```
User Name      : Emon Islam Rabbi
User Mail      : rabbi@gmail,co
User Mobile No : 01800000000
User Account No : 1002
Total Amount   : 5000.00
```

```
User Name      : Motiul Rahman
User Mail      : moti@gmail.com
User Mobile No  : 0175555555
User Account No : 1007
Total Amount   : 2000.00
```

```
User Name      : Mrk Pullock
User Mail      : mrk@gmail.com
User Mobile No  : 0132222222
User Account No : 1009
Total Amount   : 6500.00
```

After Update:

Update Email:

Enter your choice: 8

Enter Account No : 1002

Choice '1' For Update User Name :

Choice '2' For Update User E-Mail :

Choice '3' For Update User Mobile Number :

Choice Any One : 2

Enter New User E-mail : emonislam@gmail.com

E-mail Update Successful !!

User Name : Emon Islam Rabbi
User Mail : emonislam@gmail.com
User Mobile No : 01800000000
User Account No : 1002
Total Amount : 5000.00

Update Name:

Enter your choice: 8

Enter Account No : 1007

Choice '1' For Update User Name :

Choice '2' For Update User E-Mail :

Choice '3' For Update User Mobile Number :

Choice Any One : 1

Enter New User Name : Motiur Rahman

Name Update Successful !!

```
User Name      : Motiur Rahman
User Mail      : motiur@gmail.com
User Mobile No : 017555555
User Account No : 1007
Total Amount   : 2000.00
```

Update Mobile Number:

```
Enter your choice: 8
```

```
Enter Account No : 1009
```

```
Choice '1' For Update User Name :
```

```
Choice '2' For Update User E-Mail :
```

```
Choice '3' For Update User Mobile Number :
```

```
Choice Any One : 3
```

```
Enter New User Mobile Number : 01722000000
```

```
Mobile Number Update Successful !!
```

```
User Name      : Mrk Pullock
User Mail      : mrk@gmail.com
User Mobile No : 01722000000
User Account No : 1009
Total Amount   : 6500.00
```

1.5 .8 Delete Any Account:

Any account can be deleted through this function

Before Delete:

```
User Name      : Hasibul Islam Nirob
User Mail      : nirob@gmail.com
User Mobile No : 0195733333
User Account No : 1001
Total Amount   : 10050.00
```

```
User Name      : Emon Islam Rabbi
User Mail      : emonislam@gmail.com
User Mobile No : 01800000000
User Account No : 1002
Total Amount   : 5000.00
```

```
User Name      : Samiul Islam Ponik
User Mail      : samiul@gmail.com
User Mobile No : 01712121212
User Account No : 1003
Total Amount   : 10500.00
```

```

User Name      : Alif Khan Rifat
User Mail      : alif@gmail.com
User Mobile No : 0181111111
User Account No : 1005
Total Amount   : 5000.00

```

```

User Name      : Motiur Rahman
User Mail      : motiur@gmail.com
User Mobile No : 0175555555
User Account No : 1007
Total Amount   : 2000.00

```

```

User Name      : Mrk Pullock
User Mail      : mrk@gmail.com
User Mobile No : 01722000000
User Account No : 1009
Total Amount   : 6500.00

```

After Delete:

Delete 1001, 1003, and 1009

Position is wrong

Enter your choice: 5

```

Account No : 1001      For Delete Position : 1
Account No : 1002      For Delete Position : 2
Account No : 1003      For Delete Position : 3
Account No : 1005      For Delete Position : 4
Account No : 1007      For Delete Position : 5
Account No : 1009      For Delete Position : 6

```

Choice Array ('1 to 6') Position For Delete Node : 9

Deleted

Enter your choice: 5

Account No : 1001	For Delete Position : 1
Account No : 1002	For Delete Position : 2
Account No : 1003	For Delete Position : 3
Account No : 1005	For Delete Position : 4
Account No : 1007	For Delete Position : 5
Account No : 1009	For Delete Position : 6

Choice Any ('1 to 6')Position For Delete Node : 6
User Account Delete Successfully !!

Enter your choice: 5

Account No : 1001	For Delete Position : 1
Account No : 1002	For Delete Position : 2
Account No : 1003	For Delete Position : 3
Account No : 1005	For Delete Position : 4
Account No : 1007	For Delete Position : 5

Choice Any ('1 to 5')Position For Delete Node : 1
User Account Delete Successfully !!

Enter your choice: 5

Account No : 1002	For Delete Position : 1
Account No : 1003	For Delete Position : 2
Account No : 1005	For Delete Position : 3
Account No : 1007	For Delete Position : 4

Choice Any ('1 to 4')Position For Delete Node : 2
User Account Delete Successfully !!

Finlay Output

Enter your choice: 2

User Name : Emon Islam Rabbi
User Mail : emonislam@gmail.com
User Mobile No : 01800000000
User Account No : 1002
Total Amount : 5000.00

User Name : Alif Khan Rifat
User Mail : alif@gmail.com
User Mobile No : 0181111111
User Account No : 1005
Total Amount : 5000.00

User Name : Motiur Rahman
User Mail : motiur@gmail.com
User Mobile No : 017555555
User Account No : 1007
Total Amount : 2000.00