CS101 PROJECT REPORT

Bank Management System

Team ID # 249

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1.Introduction

During the past several decades personnel function has been transformed from a relatively obscure record keeping staff to central and top level management function.There are many factors that have influenced this transformation like technological advances, professionalism, and general recognition of human beings as most important resources.A computer based management system is designed to handle all the primary information required to calculate monthly statements of customer account which include monthly statement of any month. Separate database is maintained to handle all the details required for the correct statement calculation and generation.This project intends to introduce more user friendliness in the various activities such as record updation, maintenance, and searching. The searching of record has been made quite simple as all the details of the customer can be obtained by simply keying in the identification or account number of that customer. Similarly, record maintenance and updation can also be accomplished by using the account number with all the details being automatically generated. These details are also being promptly automatically updated in the master file thus keeping the record absolutely up-to-date.The entire information has maintained in the database or Files and whoever wants to retrieve can't retrieve, only authorization user can retrieve

the necessary information which can be easily be accessible from the file.

2.Problem Statement

To develop a software for solving financial applications of a customer in banking environment in order to nurture the needs of an end banking user by providing various ways to perform banking tasks. Also to enable the user's workspace to have additional functionalities which are not provided under a conventional banking software.

3.Project Description

The bank management system is an application for maintaining a person's account in a bank .The system provides the access to the customer to create an account, deposit/withdraw the cash from his account, edit or modify account details,close an account etc.

Project Objective :
• To allow only authorized user to access various function and processed available in the system.
• Reduced clerical work as most of the work done by computer.
• Provide greater speed and reduced time consumption.

4.Requirements :

a) Hardware Requirements :

1. PC or laptop
2. Keypad
3. Minimum RAM-2 GB

b) Software Requirements :

1. Any window/linux operating system
2. The 'Code Block IDE' be installed. These products are open source products.
3. GNU GCC compiler must be installed.

5. Implementation :

Functionalities :

a) Create an account : The customer can create an account by entering a valid a/c no. and account type i.e. current or saving followed by some personal details, then he needs to deposit a minimum amount of Rs 500 for saving a/c and Rs 1000 for current a/c. Account is created successfully.

b) Deposit Funds : If a customer wants to deposit fund then he needs to choose this option and enter his valid a/c no. then he is prompted to enter the amount and the record is updated showing current balance.

c) Withdraw Funds : If the user intends to withdraw funds then he needs to provide his a/c no and then he needs to enter the amount he wishes to withdraw . But there must be a remaining balance of Rs 500 for saving and Rs 1000 for current account.

d) Balance Enquiry : For checking the remaining balance the needs to enter his a/c no. and then he can view the remaining balance along with his a/c details.

e) Modify Account : This can be done through entering a/cno.and then the user is prompted to the menu where he can modify his details (like name , address etc.).

f) Close an account : If a user intends to close his account he can do by choosing the option from the main menu and giving his a/c no. to delete the record and close the account.

g) Exit : Finally to exit from this system a customer needs to choose the exit option from the main menu.

6. Features : All the features and the options are displayed in the main menu.

```
          BANK MANAGEMENT SYSTEM

     Press 1 to Create New Account
     Press 2 to Deposit Funds
     Press 3 to Withdraw Funds
     Press 4 to Balance Enquiry
     Press 5 to Close an Account
     Press 6 to Modify an Account
     Press 7 to Exit the Program

     Option:
```

The customer has to choose the corresponding option present in this Bank Management System so that he can perform the banking related tasks and enjoy the facilities provided by this easy banking software.

7.Testing : The customer has to choose one of the options from the main menu for the task he wishes to perform.

Main menu :-

```
              BANK MANAGEMENT SYSTEM

         Press 1 to Create New Account
         Press 2 to Deposit Funds
         Press 3 to Withdraw Funds
         Press 4 to Balance Enquiry
         Press 5 to Close an Account
         Press 6 to Modify an Account
         Press 7 to Exit the Program

         Option:
```

Create an account : If option 1 is chosen the person is prompted to choose and enter a valid account No.(6-8 digits) and type his name , type of account (i.e c-current and s-saving) and eventually the account is created successfully.

Result after entering valid credentials : Account created successfully…

```
Enter The account Number(6-8 characters ) : 234567

Enter The Name of The account Holder : Satish

Enter account type (enter s - saving or c - credit): s

Enter The Initial amount 500 or more for current : 500


Account Created Successfully...
```

Case when invalid credentials are provided :

```
Enter The account Number: 25852
Invalid acc number !!
Enter The account Number: 25802580

Enter The Name of The account Holder : satish

Enter account type (enter s - saving or c - credit): d
invalid Type !
Enter account type (enter s - saving or c - credit): s

Enter The Initial amount 500 or more for current : 200
invalid amount!
Enter The Initial amount 500 or more for current : 500


Account Created Successfully...
```

Deposit Funds : For this a customer has to choose option 2 and enter his a/c no. and the amount he wishes to deposit.

Result :

```
        Enter The account No.  :  234567

Account Number: 234567
Account Holder Name: Satish
Type of Account: S
Balance amount: 500

        TO DEPOSIT AMOUNT

Enter The amount to be deposited: 1000


        Record Updated

 your current balance is  :  1500
```

In case of invalid credentials :

If a user enters an invalid a/c no.. it pop-ups showing record not found.

```
        Enter The account No. : 4561234


Record Not Found
```

Withdraw Funds : If someone wants to withdraw money then he needs to enter his valid account . After this he is prompted to enter the amount he wants to withdraw depending on his account type.

```
        Enter The account No. : 234567

Account Number: 234567
Account Holder Name: Satish
Type of Account: S
Balance amount: 1500

        TO WITHDRAW AMOUNT

Enter The amount to be withdraw: 1000


        Record Updated!

 your remaining balance is : 500_
```

In case of invalid credentials : If an invalid amount is entered.

```
        Enter The account No. : 235235

Account Number: 235235
Account Holder Name: xyz
Type of Account: S
Balance amount: 1500

        TO WITHDRAW AMOUNT

Enter The amount to be withdraw: 1500
Insufficient balance!
 there must be a minimum balance of
rupees 500 for saving
        and
1000 for current !_
```

Balance Enquiry : If a customer wants to check his account balance he needs to choose the option balance enquiry from the main menu and enter his account number and the details is displayed on the screen.

```
        Enter The account No. : 234567

BALANCE DETAILS

Account Number: 234567
Account Holder Name: Satish
Type of Account: S
Balance amount: 500
```

In case of invalid credentials : Account number does not exist is displayed on the screen.

```
        Enter The account No. : 2312524
BALANCE DETAILS


Account number does not exist_
```

Close an account : If a customer wishes to close his account
then he has to choose the option from the main menu and enter
his account number. A message pops-up on the screen confirming
the closing of his account. Record deleted...

```
        Enter The account No. : 234567


Record Deleted.. ▄
```

In case of invalid account no. : Since a/c no. is invalid and not stored in the file it prints the message..

```
        Enter The account No. : 2131212
File could not be open !! This account no does not exist.. ▄
```

8. Problems faced during execution and solution :

The main problem we faced during execution was the choice of account no. when we entered any arbitrary account no. a very small value or a very large value the account was getting created . So we finally decided to put a constrain on the account no. that it must be between 6-8 digits so that if someone enters the value which is not in this domain it will display an invalid account no. error message.

Also since we could not implement database to store account numbers and other details so we finally stored them in a file (ios::binary)

9.Future work :

Our current work can be extended further by following additional features :-

1) Implementing other important functionalities like Fund Transfer, loan section etc.

2) Implementing database management system to store , modify , account numbers and other details.

3) By Login interface with user id and password rather than account numbers to make it more secured.

4) Incorporating GUI to make it more appealing and user- friendly.

Conclusion :

This project is developed to nurture the needs of a user in a banking sector by embedding all the tasks of transactions taking place in a bank. Future version of this software will still be much enhanced than the current version .Thus the Bank Management System it is developed and executed successfully.

References :

1) C++ programming, important libraries and functions :
   http://stackoverflow.com/

2) C++ object oriented programming and other stuffs :
   http://www.tutorialspoint.com/ http://www.cplusplus.com/