Programming Fundamentals

Lab Manual 14

Instructor:	**CLO:**
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Learning Objectives:	
• Building in memory business application with the limited number of records	_____
	Name:
	_____

Guidelines/Instructions:

•   Create meaningful variable names. Add comments for readability. Indent each line of your code.
•   Plagiarism/Cheating is highly discouraged by assigning 0 to both who tried and one who shared his/her code.

Project Details:

You are required to develop a Bank Management system that allows to create a new account and maintain the record deposit and withdraw facilities with advance feature of loan management (Transaction and installment record). **Use struct and file handling concepts**

Task 1:

Create New Account:

Write a program through which user can create a new account for bank transaction. The program should proceed after taking valid input from user. After successful login, user can login their account through valid email and password.

```
*************************************************************
                  Bank Management System
*************************************************************
Welcome to Bank
        1.  Create a new account
        2.  Login Account
        3.  Loan Management
        0. Close the program
Enter user input: 1
```

```
*************************************************************
                    Bank Management System
*************************************************************
Fill the required input to create an Account
Enter First Name:
Enter Last Name:
Enter Date-of-birth:
Enter Contact Number:
Enter Valid CNIC:
Enter Address:
Enter Email Address:
Enter Password:
Your account has been created successfully!
Press 0 to go back:
Enter user input: 0
```

Task 2:
Deposit Amount
User can now deposit money in their bank account after creation of new account. Choose 2 for login and then proceed next.

```
*************************************************************
                    Bank Management System
*************************************************************
Enter valid credential for login
Enter Email Address:
Enter Password:
User login successfully!
Press any key to proceed
```

```
*************************************************************
                    Bank Management System
*************************************************************
1- Deposit Money
2- Withdraw Money
3- View all transaction
4- View account details
5- Logout the current user
```

```
***********************************************************
                    Bank Management System
***********************************************************
Enter the required information to deposit amount:
Enter CNIC:
Enter Contact Number:
Enter your Password:
Enter the amount to deposit (in digits)
Amount has been added to your account
```

Task 3:
Withdraw Amount

User can now withdraw money from your bank account after login. Enter the amount less than or equal to current amount in account details.

```
***********************************************************
                    Bank Management System
***********************************************************
Enter the required information to withdraw amount:
Enter CNIC:
Enter Contact Number:
Enter your Password:
Enter the amount to withdraw (should be less than current amount in bank account):
Collect your money!
```

Task 4:
View all Transaction

User can now view previous history of their bank account as

```
***********************************************************
                    Bank Management System
***********************************************************
Enter the required information to view account history
```

S.No.	Email	CNIC	Transaction-Type(W/D)	Data and Time
1.	abc@gmail.com	1234567890234	W	22/1/2021-9:30AM

Task 5:
View account details

User can now view their account details

```
**************************************************************
                    Bank Management System
**************************************************************
Account Profile is                            Current Amount:      50,000 Pkr
Full Name:
CNIC:
Email-Address:
Contact-Number:
Password:
Date-of-Birth:



```

Task 6:
Request for Loan:
User can request for loan and maintain all transaction for loan. System will generate a random 8 character length loan-id to keep track of loan transaction on valid credential of user. (Format for loan id is: XXX000X0). Monthly amount should be calculated as (requested amount / total month)

```
**************************************************************
                    Bank Management System
**************************************************************
Welcome to loan Management
Enter the required information
Enter your Email Address:
Enter Valid CNIC:
Enter Password:

Your Loan id is: XXX000X0
Press any key to proceed

```


```
**************************************************************
                    Bank Management System
**************************************************************
1-Loan Request
2-Loan Profile
Press 0 to go back



```

```
************************************************************
                  Bank Management System
************************************************************
Enter the required information for loan request
Enter CNIC:
Enter Password:
Enter Loan ID:
Enter requested amount:
Enter installment period (in month):
Your Monthly will be:
Did you want to proceed (Y/N)?
Your request will be verified soon. Check loan profile
```

```
************************************************************
                  Bank Management System
************************************************************
User Loan Profile
Enter Your CNIC:
Enter Your Loan ID:
Enter Your Password:
```

```
************************************************************
                  Bank Management System
************************************************************
Full Name
CNIC
Loan ID

Requested Amount:                    Monthly Installment
Total Time Period (in Month)         Request Date-Time
```

File Structures

firstName;lastName,cnic,email,contactnumber,password,address,dob

account.txt

cnic,transaction-type,amount,date-time

transaction.txt

cnic,loanid,requestedamount,monthlyinstallment,request-date-time,time-period

loan.txt