## 

**PSP [20ES104] COURSE PROJECT REPORT**

**On**

**“**Bank Management System**”**

Developed By:

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**Department of Computer Science and Artificial Intelligence**

**CERTIFICATE**

This is to certify that the PSP course project report entitled “Bank Management System” is a record of bonafide work carried out by the student(s) K. Harshavardhan, R. Amulya &

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PROBLEM STATEMENT:

Develop a C Application to store details of the Bank customers in terms of customer Name, Age, Aadhar Number, Account number, Account type, Initial balance amount, Date of birth for new bank account. and also store the details of the customer in the file. When the customer use this application they may get below provided functions as they need.

Provide the functionality for below mentioned:

1.Reading the ‘n’ customer details for new bank account.

2.Withdrawing the amount from the account.

3.Depositing amount to the bank.

4.Sorting (Ascending/Descending) ‘n’ customer details according to the

* Age
* bank balance
* account number.

5.Searching ‘n’ candidates details according to the

* Name
* Age
* Bank account number.

6.For Fixed deposit for the customer.

7.For Getting loan also.

8.Printing the ‘n’ customer details on to the screen.

This application is on the Bank Management system.

9.Display Transaction History.

**1**

MODULES:

In this application all variables and structure are declared globally so that these variables and structure members can be accessed throughout the program at any function call. We can choose any function by using function calls which are declared in switch-case. In order to repeat the loop control statement (do-while) is used with condition. The application asks the person who runs the program that how many coustomer’s data he/she want to store.

In this application four modules are used.

1. Read/Input

In this module the application asks the person who runs the program to enter ‘n’ coustomer’s details. To give n customers details for loop is used. The given input will be stored in the file.

1. Withdrawing amount

In this module the application asks the person who runs the program to enter the account number of the customer and pin for the account for withdrawing amount it also asks amount you want to withdraw from the account. automatically the balance will be updated.

1. Deposit amount

In this module the application asks the person who runs the program to enter the account number of the customer and asks amount to deposit from an account.

1. Sorting

In this module sorting of data is done according to the chosen wise.

In this module there is a sub menu which asks to select the sorting wise by using switch case. The sorting sub menu will be like press 1 to sort by age wise press 2 to sort by balance wise press 3 to sort account number .In this there also a selection for order i.e ascending order, descending order

In this module we used another control statement(switch) so that the application asks whether to continue sorting.

1. Searching

In this module searching of data is done according to the chosen wise.

**2**

In this module there is a sub menu which asks to select the sorting wise by using switch case. The sorting sub menu will be like press 1 to search by name wise press 2 to search by age wise press 3 to search account number wise.

In this module we used another control statement (switch) so that the application asks whether to continue searching.

1. Print

In this module all the stored details of n customers will be displayed on to the screen. In this module printf function and for loop are used.

1. Fixed deposit

In this module the user will asked about the amount to fixed deposit and duration of deposit in the years and interest rate will also be asked by which the total amount after that duration will be calculated and added to the account.

1. Loan

In this module the user will asked about the amount of loan and duration of loan in the years and interest rate will also be asked by which the total amount after that duration will be calculated and removed from the account.

1. Transaction history

In this module the application will ask the account number and pin of the account to the transaction history.

**3**

KNOWLEDGE REQUIRED TO DEVELOP THIS APPLICATION

* + Control Statements (if, if-else, switch)
  + Loop Statements (while/do while, for)
  + Arrays (1D/2D-arrays)
  + Strings (Strings and Table of strings) and its functions (strcpy, strcmp)
  + Functions (Any type of user defined functions)
  + Structure (structures and nested structures)
  + Files

**4**

SOURCE CODE [.C FILE]:

#include<stdio.h>

#include"project.h"

int main() {

int choice;

do {

printf("Bank Management System\n");

printf("1. Login In\n");

printf("2. Sign In\n");

printf("3. Exit\n");

printf("Enter your choice: ");

scanf("%d", &choice);

switch (choice) {

case 1:

if (signIn()) {

printf("\nLogined in successfully!\n");

bank();

}

else {

printf("\nInvalid username or password. Please try again.\n");

}

break;

case 2:

registerUser();

break;

**5**

case 3:

printf("\nThank you! Visit Again...\n");

return 0;

default:

printf("Invalid choice. Please try again.\n");

}

} while (choice != 3);

return 0;

}

SOURCE CODE [HEADER FILE]:

#include <stdio.h>

#include <stdlib.h>

#include <string.h>

#include<conio.h>

#define MAX\_CUSTOMERS 100

#define FILE\_NAME "customer\_details.txt"

typedef struct {

char name[100];

int age;

int pin;

char aadharNumber[13];

long long int accountNumber;

char accountType[100];

float balance;

char dateOfBirth[11];

float fixedDepositAmount;

float loanAmount;

**6**

float transactionHistory[100]; // Added transactionHistory array

int numTransactions;

} Customer;

typedef struct {

char username[20];

char password[20];

} User;

Customer customers[MAX\_CUSTOMERS];

int numCustomers = 0;

User users[10];

int userCount = 0;

void saveCustomerDetails() {

FILE \*file = fopen(FILE\_NAME, "w");

if (file == NULL) {

printf("Failed to open file for writing.\n");

return;

}

fwrite(customers, sizeof(Customer), numCustomers, file);

fclose(file);

}

void loadCustomerDetails() {

FILE \*file = fopen(FILE\_NAME, "r");

if (file == NULL) {

printf("No customer details found.\n");

return;

**7**

}

numCustomers = fread(customers, sizeof(Customer), MAX\_CUSTOMERS, file);

fclose(file);

}

void addCustomerDetails(Customer newCustomer) {

if (numCustomers == MAX\_CUSTOMERS) {

printf("Maximum number of customers reached.\n");

return;

}

customers[numCustomers++] = newCustomer;

saveCustomerDetails();

printf("Customer details added successfully.\n");

}

void readCustomerDetails() {

int m;

if (numCustomers == MAX\_CUSTOMERS) {

printf("Maximum number of customers reached.\n");

return;

}

Customer newCustomer;

printf("Enter customer name(With out white spaces):");

scanf("%s", newCustomer.name);

printf("Enter customer age:");

scanf("%d", &newCustomer.age);

**8**

if(newCustomer.age>=18)

{

a:printf("Enter customer Aadhar number:");

scanf("%s", newCustomer.aadharNumber);

m=strlen(newCustomer.aadharNumber);

if(m==12)

{

printf("Enter customer account number:");

scanf("%lld", &newCustomer.accountNumber);

printf("Enter account type:");

scanf("%s", newCustomer.accountType);

printf("Enter initial balance amount: ");

scanf("%f", &newCustomer.balance);

printf("Enter customer date of birth (YYYY-MM-DD): ");

scanf("%s", newCustomer.dateOfBirth);

printf("Enter PIN number: "); // Prompt for PIN number

scanf("%d", &newCustomer.pin);

addCustomerDetails(newCustomer);

}

else

{

printf("!!!The adhaar number should be upto 12 digits.\n");

printf("So,enter correct adhaar number\n");

**9**

goto a;

}

}

else

{

printf("Sorry");

printf("\nPlease wait for %d years",18-newCustomer.age);

}

}

void withdrawAmount() {

long long int accountNumber;

float amount;

int pin;

int i;

int found = 0;

printf("Enter account number: ");

scanf("%lld", &accountNumber);

for (i = 0; i < numCustomers; i++) {

if (customers[i].accountNumber == accountNumber) {

found = 1;

printf("Enter PIN number: ");

scanf("%d", &pin);

if (customers[i].pin != pin) {

printf("Invalid PIN number. Withdrawal failed.\n");

**10**

return;

}

printf("Enter amount to withdraw: ");

scanf("%f", &amount);

if (customers[i].balance >= amount) {

customers[i].balance -= amount;

printf("Amount withdrawn successfully.\n");

customers[i].transactionHistory[customers[i].numTransactions] = -amount;

customers[i].numTransactions++;

saveCustomerDetails();

printf("\nPresent bank balance:%0.2f",customers[i].balance);

} else {

printf("Insufficient balance.\n");

}

break;

}

}

if (!found) {

printf("Account number not found.\n");

}

}

void displayTransactionHistory() {

long long int accountNumber;

int pin;

int i,j;

**11**

int found = 0;

printf("Enter account number: ");

scanf("%lld",&accountNumber);

for (i = 0; i < numCustomers; i++) {

if (customers[i].accountNumber == accountNumber) {

found = 1;

printf("Enter PIN number: ");

scanf("%d", &pin);

if (customers[i].pin != pin) {

printf("Invalid PIN number. Access denied.\n");

return;

}

printf("Transaction History for Account Number: %lld\n", customers[i].accountNumber);

printf("----------------------------------------------------------------\n");

printf(" S.No. | Transaction Amount | Type \n");

printf("----------------------------------------------------------------\n");

for ( j = 0; j < customers[i].numTransactions; j++) {

float amount = customers[i].transactionHistory[j];

char\* transactionType = amount < 0 ? ("Withdrawal"):("Deposit");

printf(" %5d | %10.2f | %s\n", j + 1,amount,transactionType);

}

**12**

printf("----------------------------------------------------------------\n");

break;

}

}

if (!found) {

printf("Account not found. Access denied.\n");

}

}

void depositAmount() {

long long int accountNumber;

float amount;

int i;

int found = 0;

printf("Enter account number: ");

scanf("%lld", &accountNumber);

for (i = 0; i < numCustomers; i++) {

if (customers[i].accountNumber == accountNumber) {

found = 1;

printf("Enter amount to deposit: ");

scanf("%f", &amount);

customers[i].balance += amount;

printf("Amount deposited successfully.\n");

customers[i].transactionHistory[customers[i].numTransactions] = +amount;

customers[i].numTransactions++;

**13**

saveCustomerDetails();

printf("\nPresent bank balance:%0.2f",customers[i].balance);

break;

}

}

if (!found) {

printf("Account number not found.\n");

}

}

void sortCustomersByAge(int order) {

int i, j;

Customer temp;

for (i = 0; i < numCustomers - 1; i++){

for (j = 0; j < numCustomers - i - 1; j++) {

if ((order == 0 && customers[j].age > customers[j + 1].age) ||

(order == 1 && customers[j].age < customers[j + 1].age)) {

temp = customers[j];

customers[j] = customers[j + 1];

customers[j + 1] = temp;

}

}

}

printf("Customer details sorted by age in %s order.\n", (order == 0 ? "ascending" : "descending"));

printf("-------------------------------------------------------------------\n");

printf("Name\t\tAge\tAadhar Number\tAccount Number\tCurrent balance\n");

printf("-------------------------------------------------------------------\n");

**14**

for (i = 0; i < numCustomers; i++) {

printf("%s\t%d\t%lld\t%lld\t%f\n", customers[i].name, customers[i].age, customers[i].aadharNumber, customers[i].accountNumber, customers[i].balance);

}

printf("-------------------------------------------------------------------\n");

}

void sortCustomersByBalance(int order) {

int i, j;

Customer temp;

for (i = 0; i < numCustomers - 1; i++) {

for (j = 0; j < numCustomers - i - 1; j++) {

if ((order == 0 && customers[j].balance > customers[j + 1].balance) ||

(order == 1 && customers[j].balance < customers[j + 1].balance)) {

temp = customers[j];

customers[j] = customers[j + 1];

customers[j + 1] = temp;

}

}

}

printf("Customer details sorted by balance in %s order.\n", (order == 0 ? "ascending" : "descending"));

printf("-------------------------------------------------------------------\n");

printf("Name\t\tAge\tAadhar Number\tAccount Number\tCurrent balance\n");

printf("-------------------------------------------------------------------\n");

for (i = 0; i < numCustomers; i++) {

**15**

printf("%s\t\t%d\t%lld\t%lld%f\n", customers[i].name, customers[i].age, customers[i].aadharNumber, customers[i].accountNumber,customers[i].balance);

}

printf("-------------------------------------------------------------------\n");

}

void sortCustomersByAccountNumber(int order) {

int i, j;

Customer temp;

for (i = 0; i < numCustomers - 1; i++) {

for (j = 0; j < numCustomers - i - 1; j++) {

if ((order == 0 && customers[j].accountNumber > customers[j + 1].accountNumber) ||

(order == 1 && customers[j].accountNumber < customers[j + 1].accountNumber)) {

temp = customers[j];

customers[j] = customers[j + 1];

customers[j + 1] = temp;

}

}

}

printf("Customer details sorted by account number in %s order.\n", (order == 0 ? "ascending" : "descending"));

printf("--------------------------------------------------------------------\n");

printf("Name\t\tAge\tAadhar Number\tAccount Number\tCurrent balance\n");

printf("--------------------------------------------------------------------\n");

for (i = 0; i < numCustomers; i++) {

printf("%s\t\t%d\t%lld\t%lld\t%f\n", customers[i].name, customers[i].age, customers[i].aadharNumber, customers[i].accountNumber,customers[i].balance);

**16**

}

printf("--------------------------------------------------------------------\n");

}

void searchCustomersByName() {

char searchName[100];

int i;

int found = 0;

printf("Enter the name to search:");

scanf("%s", searchName);

printf("Search results:\n");

printf("--------------------------------------------------------------------\n");

printf("Name\t\tAge\tAadhar Number\tAccount Number\tCurrent Balance\n");

printf("--------------------------------------------------------------------\n");

for (i = 0; i < numCustomers; i++) {

if (strcmp(searchName, customers[i].name) == 0) {

found = 1;

printf("%s\t\t%d\t%lld\t%lld\t%f\n", customers[i].name, customers[i].age, customers[i].aadharNumber, customers[i].accountNumber,customers[i].balance);

}

}

if(!found) {

printf("No customers found with the given name.\n");

}

printf("--------------------------------------------------------------------\n");

}

**17**

void searchCustomersByAge() {

int searchAge;

int i;

int found = 0;

printf("Enter the age to search: ");

scanf("%d", &searchAge);

printf("Search results:\n");

printf("-------------------------------------------------------------------------\n");

printf("Name\t\tAge\tAadhar Number\tAccount Number\tCurrent Balance\n");

printf("-------------------------------------------------------------------------\n");

for (i = 0; i < numCustomers; i++) {

if (customers[i].age == searchAge) {

found = 1;

printf("%s\t\t%d\t%lld\t%lld\t%f\n",customers[i].name, customers[i].age,customers[i].aadharNumber, customers[i].accountNumber,customers[i].balance);

}

}

if (!found) {

printf("No customers found with the given age.\n");

}

printf("------------------------------------------------------------------------\n");

}

**18**

void searchCustomersByAccountNumber() {

long long int searchAccountNumber;

int i;

int found = 0;

printf("Enter the account number to search: ");

scanf("%lld", &searchAccountNumber);

printf("Search results:\n");

printf("----------------------------------------------------------------------\n");

printf("Name\t\tAge\tAadhar Number\tAccount Number\tCurrent Balance\n");

printf("----------------------------------------------------------------------\n");

for (i = 0; i < numCustomers; i++) {

if (customers[i].accountNumber == searchAccountNumber) {

found = 1;

printf("%s\t\t%d\t%lld\t%lld\t%f\n", customers[i].name, customers[i].age, customers[i].aadharNumber, customers[i].accountNumber,customers[i].balance);

}

}

if (!found) {

printf("No customers found with the given account number.\n");

}

printf("----------------------------------------------------------------------\n");

}

void calculateFixedDeposit() {

long long int accountNumber;

**19**

float amount;

int i;

int found = 0;

printf("Enter account number: ");

scanf("%lld", &accountNumber);

for (i = 0; i < numCustomers; i++) {

if (customers[i].accountNumber == accountNumber) {

found = 1;

printf("Enter fixed deposit amount: ");

scanf("%f", &amount);

// Calculate interest based on fixed deposit plans

float interestRate;

int timePeriod;

printf("Enter fixed deposit interest rate: ");

scanf("%f", &interestRate);

printf("Enter fixed deposit time period in years: ");

scanf("%d", &timePeriod);

float interest = (amount \* interestRate \* timePeriod) / 100;

float totalAmount = amount + interest;

customers[i].balance += totalAmount;

customers[i].fixedDepositAmount += totalAmount;

saveCustomerDetails();

printf("Fixed deposit amount: %0.2f\n", amount);

**20**

printf("Interest earned: %0.2f\n", interest);

printf("Total amount after maturity: %0.2f\n", totalAmount);

printf("\nPresent bank balance: %0.2f", customers[i].balance);

break;

}

}

if (!found) {

printf("Account number not found.\n");

}

}

void calculateLoan() {

long long int accountNumber;

float amount;

int i;

int found = 0;

printf("Enter account number: ");

scanf("%lld", &accountNumber);

for (i = 0; i < numCustomers; i++) {

if (customers[i].accountNumber == accountNumber) {

found = 1;

printf("Enter loan amount: ");

scanf("%f", &amount);

// Calculate interest based on loan plans

float interestRate;

int timePeriod;

**21**

printf("Enter loan interest rate: ");

scanf("%f", &interestRate);

printf("Enter loan time period in years: ");

scanf("%d", &timePeriod);

float interest = (amount \* interestRate \* timePeriod) / 100;

float totalAmount = amount + interest;

if (totalAmount <= customers[i].balance) {

customers[i].balance -= totalAmount;

customers[i].loanAmount += totalAmount;

saveCustomerDetails();

printf("Loan amount: %0.2f\n", amount);

printf("Interest payable: %0.2f\n", interest);

printf("Total amount to be repaid: %0.2f\n", totalAmount);

printf("\nPresent bank balance: %0.2f", customers[i].balance);

} else {

printf("Insufficient balance to grant the loan.\n");

}

break;

}

}

if (!found) {

printf("Account number not found.\n");

}

**22**

}

void printCustomerDetails() {

int i;

printf("Customer details:\n");

printf("----------------------------------------------------------------------\n");

printf("Name\t\tAge\tAadhar Number\tAccount Number\tCurrent balance\n");

printf("----------------------------------------------------------------------\n");

for (i = 0; i < numCustomers; i++) {

printf("%s\t\t%d\t%lld\t%lld\t%f\n", customers[i].name, customers[i].age, customers[i].aadharNumber, customers[i].accountNumber,customers[i].balance);

}

printf("----------------------------------------------------------------------\n");

}

int bank() {

loadCustomerDetails();

int choice,ach,bch,order;

do {

printf("\*----------------------------Bank Management System---------------------\*\n");

printf("1. Read customer details\n");

printf("2. Withdraw amount\n");

printf("3. Deposit amount\n");

printf("4. Sort customer details\n");

printf("5. Search customer details\n");

printf("6. Print customer details\n");

printf("7. For fixed deposit\n");

printf("8. For loan\n");

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printf("9. For Transaction histroy\n");

printf("0. Exit\n");

printf("Enter your choice: ");

scanf("%d", &choice);

switch (choice) {

case 1:

readCustomerDetails();

break;

case 2:

withdrawAmount();

break;

case 3:

depositAmount();

break;

case 4:

//sortCustomers();

printf("\n1.Sort by age");

printf("\n2.Sort by balance");

printf("\n3.Sort by accountNumber");

printf("\nEnter your choice:");

scanf("%d",&ach);

switch(ach)

{

case 1:printf("\npress 0 for ascending order");

printf("\nPress 1 for desending order\n");

scanf("%d",&order);

**24**

sortCustomersByAge(order);

break;

case 2:printf("\npress 0 for ascending order");

printf("\nPress 1 for desending order\n");

scanf("%d",&order);

sortCustomersByBalance(order);

break;

case 3:printf("\npress 0 for ascending order");

printf("\nPress 1 for desending order\n");

scanf("%d",&order);

sortCustomersByAccountNumber(order);

break;

}

break;

case 5:

//searchCustomers();

printf("\n1.Search by name");

printf("\n2.Search by age");

printf("\n3.Search by Account number");

printf("\nEnter your choice:");

scanf("%d",&bch);

switch(bch)

{

case 1:searchCustomersByName();

break;

case 2:searchCustomersByAge();

break;

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case 3:searchCustomersByAccountNumber();

break;

}

break;

case 6:printCustomerDetails();

break;

case 7:calculateFixedDeposit() ;

break;

case 8:calculateLoan();

break;

case 9:displayTransactionHistory();

break;

case 0:printf("Exiting...\n");

break;

default:printf("Invalid choice. Please try again.\n");

break;

}

printf("\n");

} while (choice != 0);

return 0;

}

void registerUser() {

printf("Registration\n");

printf("Enter username: ");

scanf("%s", users[userCount].username);

printf("Enter password: ");

int i = 0;

**26**

while (1) {

char ch = getch();

if (ch == 13) // Enter key

break;

putchar('\*'); // Print asterisks instead of the actual character

users[userCount].password[i++] = ch;

}

users[userCount].password[i] = '\0';

FILE \*file = fopen("users.txt", "a");

if (file == NULL) {

printf("\nError opening file.\n");

return;

}

fprintf(file, "%s %s\n", users[userCount].username, users[userCount].password);

fclose(file);

userCount++;

printf("\nRegistration successful!\n");

}

//define MAX\_ATTEMPTS 3

int signIn() {

printf("Sign In\n");

char username[20];

char password[20];

**27**

printf("Enter username: ");

scanf("%s", username);

printf("Enter password: ");

int i = 0;

while (1) {

char ch = getch();

if (ch == 13) // Enter key

break;

putchar('\*');

password[i++] = ch;

}

password[i] = '\0';

FILE \*file = fopen("users.txt", "r");

if (file == NULL) {

printf("\nError opening file.\n");

return 0;

}

char fileUsername[20];

char filePassword[20];

int attempts = 0;

int isLoggedIn = 0;

int MAX\_ATTEMPTS=3;

while (fscanf(file, "%s %s", fileUsername, filePassword) != EOF) {

if (strcmp(username, fileUsername) == 0 && strcmp(password, filePassword) == 0) {

**28**

isLoggedIn = 1;

break;

}

}

fclose(file);

if (isLoggedIn) {

printf("\nWelcome, %s!\n", username);

return 1; // Sign-in successful

} else {

printf("\nInvalid username or password. Please try again.\n");

attempts++;

if (attempts == MAX\_ATTEMPTS) {

printf("Too many failed attempts. Exiting...\n");

return 0; // Sign-in failed

} else {

return signIn(); // Recursive call to try again

}

}

}

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OUT PUT:

Bank Management System

1. Login In

2. Sign In

3. Exit

Enter your choice: 2

Registration

Enter username: K.Harshavardhan

Enter password: \*\*\*\*

Registration successful!

Bank Management System

1. Login In

2. Sign In

3. Exit

Enter your choice: 1

Sign In

Enter username: K.Harshavardhan

Enter password: \*\*\*\*

Welcome, K.Harshavardhan!

Logined in successfully!

\*----------------------------Bank Management System---------------------\*

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7.For fixed deposit

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8.For loan

9.For Transaction histroy

0. Exit

Enter your choice: 1

Enter customer name:K.Harshavardhan

Enter customer age:20

Enter customer Aadhar number:12345678956

Enter customer account number:1

Enter account type:s

Enter initial balance amount: 12563487

Enter customer date of birth (YYYY-MM-DD): 2005-04-16

Enter PIN number: 1234

Customer details added successfully.

\*----------------------------Bank Management System---------------------\*

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7.For fixed deposit

8.For loan

9.For Transaction histroy

0. Exit

Enter your choice: 1

Enter customer name:G.Abhi

Enter customer age:25

Enter customer Aadhar number:123

!!!The adhaar number should be upto 12 digits.

So,enter correct adhaar number

Enter customer Aadhar number:123654789456

Enter customer account number:2

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Enter account type:s

Enter initial balance amount: 456215

Enter customer date of birth (YYYY-MM-DD): 2004-02-25

Enter PIN number: 4321

Customer details added successfully.

\*----------------------------Bank Management System---------------------\*

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7. For fixed deposit

8. For loan

9. For Transaction histroy

0. Exit

Enter your choice: 1

Enter customer name(With out white spaces):K.Harshavardhan

Enter customer age:14

Sorry

Please wait for 4 years

\*----------------------------Bank Management System---------------------\*

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7. For fixed deposit

8. For loan

9. For Transaction histroy

0. Exit

**32**

\*----------------------------Bank Management System---------------------\*

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7.For fixed deposit

8.For loan

9.For Transaction histroy

0. Exit

Enter your choice: 1

Enter customer name:P.Abhiram

Enter customer age:28

Enter customer Aadhar number:12354789123

Enter customer account number:3

Enter account type:

s

Enter initial balance amount: 789456

Enter customer date of birth (YYYY-MM-DD): 2004-05-25

Enter PIN number: 1981

Customer details added successfully.

\*----------------------------Bank Management System---------------------\*

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7.For fixed deposit

8.For loan

9.For Transaction histroy

**33**

0. Exit

Enter your choice: 2

Enter account number: 2

Enter PIN number: 4321

Enter amount to withdraw: 2500

Amount withdrawn successfully.

Present bank balance:453715.00

Bank Management System

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7.For fixed deposit

8.For loan

9.For Transaction histroy

0. Exit

Enter your choice: 3

Enter account number: 3

Enter amount to deposit: 156000

Amount deposited successfully.

Present bank balance:945456.00

\*----------------------------Bank Management System---------------------\*

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7.For fixed deposit

**34**

8.For loan

9.For Transaction histroy

0. Exit

Enter your choice: 4

1.Sort by age

2.Sort by balance

3.Sort by accountNumber

Enter your choice:1

press 0 for ascending order

Press 1 for desending order

0

Customer details sorted by age in ascending order.

-------------------------------------------------------------------

Name Age Aadhar Number Account Number Current balance

-------------------------------------------------------------------

K.Harshavardhan 20 12345678956 1 12563487.000000

G.Abhi 25 123654789456 2 453715.000000

P.Abhiram 28 12354789123 3 945456.000000

-------------------------------------------------------------------

\*----------------------------Bank Management System---------------------\*

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7.For fixed deposit

8.For loan

9.For Transaction histroy

0. Exit

Enter your choice: 4

1.Sort by age

**35**

2.Sort by balance

3.Sort by accountNumber

Enter your choice:2

press 0 for ascending order

Press 1 for desending order

0

Customer details sorted by balance in ascending order.

-------------------------------------------------------------------

Name Age Aadhar Number Account Number Current balance

-------------------------------------------------------------------

G.Abhi 25 123654789456 2453715.000000

P.Abhiram 28 12354789123 3945456.000000

K.Harshavardhan 20 12345678956 112563487.000000

-------------------------------------------------------------------

\*----------------------------Bank Management System---------------------\*

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7.For fixed deposit

8.For loan

9.For Transaction histroy

0. Exit

Enter your choice: 4

1.Sort by age

2.Sort by balance

3.Sort by accountNumber

**36**

Enter your choice:3

press 0 for ascending order

Press 1 for desending order

0

Customer details sorted by account number in ascending order.

--------------------------------------------------------------------

Name Age Aadhar Number Account Number Current balance

--------------------------------------------------------------------

K.Harshavardhan 20 12345678956 1 12563487.000000

G.Abhi 25 123654789456 2 453715.000000

P.Abhiram 28 12354789123 3 945456.000000

--------------------------------------------------------------------

\*----------------------------Bank Management System---------------------\*

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7.For fixed deposit

8.For loan

9.For Transaction histroy

0. Exit

Enter your choice: 5

1.Search by name

2.Search by age

3.Search by Account number

Enter your choice:1

Enter the name to search:K>Harshavardhan

Search results:

**37**

--------------------------------------------------------------------

Name Age Aadhar Number Account Number Current Balance

--------------------------------------------------------------------

No customers found with the given name.

--------------------------------------------------------------------

\*----------------------------Bank Management System---------------------\*

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7.For fixed deposit

8.For loan

9.For Transaction histroy

0. Exit

Enter your choice: 5

1.Search by name

2.Search by age

3.Search by Account number

Enter your choice:1

Enter the name to search:K.Harshavardhan

Search results:

--------------------------------------------------------------------

Name Age Aadhar Number Account Number Current Balance

--------------------------------------------------------------------

K.Harshavardhan 20 12345678956 1 12563487.000000

--------------------------------------------------------------------

\*----------------------------Bank Management System---------------------\*

1. Read customer details

**38**

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7.For fixed deposit

8.For loan

9.For Transaction histroy

0. Exit

Enter your choice: 5

1.Search by name

2.Search by age

3.Search by Account number

Enter your choice:2

Enter the age to search: 25

Search results:

-------------------------------------------------------------------------

Name Age Aadhar Number Account Number Current Balance

-------------------------------------------------------------------------

G.Abhi 25 123654789456 2 453715.000000

------------------------------------------------------------------------

Bank Management System

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7.For fixed deposit

8.For loan

**39**

9.For Transaction histroy

0. Exit

Enter your choice: 5

1.Search by name

2.Search by age

3.Search by Account number

Enter your choice:3

Enter the account number to search: 3

Search results:

--------------------------------------------------------------------------------------------

Name Age Aadhar Number Account Number Current Balance

--------------------------------------------------------------------------------------------

P.Abhiram 28 12354789123 3 945456.000000

---------------------------------------------------------------------------------------------

\*----------------------------Bank Management System---------------------\*

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7.For fixed deposit

8.For loan

9.For Transaction histroy

0. Exit

Enter your choice: 6

Customer details:

-------------------------------------------------------------------------------------------

Name Age Aadhar Number Account Number Current balance

-------------------------------------------------------------------------------------------

**40**

K.Harshavardhan 20 12345678956 1 12563487.000000

G.Abhi 25 123654789456 2 453715.000000

P.Abhiram 28 12354789123 3 945456.000000

\*----------------------------Bank Management System---------------------\*

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7.For fixed deposit

8.For loan

9.For Transaction histroy

0. Exit

Enter your choice: 7

Enter account number: 2

Enter fixed deposit amount: 125000

Enter fixed deposit interest rate: 2

Enter fixed deposit time period in years: 10

Fixed deposit amount: 125000.00

Interest earned: 25000.00

Total amount after maturity: 150000.00

Present bank balance: 753715.00

Bank Management System

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7.For fixed deposit

8.For loan

**41**

9.For Transaction histroy

0. Exit

Enter your choice: 8

Enter account number: 3

Enter loan amount: 25000

Enter loan interest rate: 1.5

Enter loan time period in years: 15

Loan amount: 25000.00

Interest payable: 5625.00

Total amount to be repaid: 30625.00

Present bank balance: 884206.00

\*----------------------------Bank Management System---------------------\*

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7.For fixed deposit

8.For loan

9.For Transaction histroy

0. Exit

Enter your choice: 9

Enter account number: 2

Enter PIN number: 4321

Transaction History for Account Number: 2

----------------------------------------------------------------

S.No. | Transaction Amount | Type

----------------------------------------------------------------

1 | -2500.00 | Withdrawal

----------------------------------------------------------------

\*----------------------------Bank Management System---------------------\*

**42**

1. Read customer details

2. Withdraw amount

3. Deposit amount

4. Sort customer details

5. Search customer details

6. Print customer details

7.For fixed deposit

8.For loan

9.For Transaction histroy

0. Exit

Enter your choice: 0

Exiting...

Bank Management System

1. Login In

2. Sign In

3. Exit

Enter your choice: 1

Sign In

Enter username: K.Harshavardhan

Enter password: \*\*\*\*\*

Invalid username or password. Please try again.

Bank Management System

1. Login In

2. Sign In

3. Exit

Enter your choice: 3

Thank you! Visit Again...

**43**