#include <iostream>

**FINAL PROJECT – PROG2**

(Group 2)

**BANKING SYSTEM**

**Instructor** : Mr. Gilbert Corporal

**Members** :

* Viñas, Judah Paulo
* Tercenio, Jeremiah
* Satsatin, Karl Edrian
* Cator, Axl Kurt

#include <fstream>

#include <string>

using namespace std;

// STRUCTURE

struct info {

int accNum[10];

string name[10];

string address[10];

int age[10];

int balance[10];

int pincode[10];

};

struct condi {

bool open;

bool select;

bool adminSel;

bool userSel;

bool userPin;

bool correctPin;

bool adminDel;

};

struct selects {

int mainSel;

int userSel;

int userPin;

int adminPass;

int adminSel;

char cont;

int adminDel;

};

struct cntr {

int accCntr;

int start;

int end;

};

struct comp {

int deposit;

int withdraw;

};

// FUNCTION

int deposit(int a, int b) {

return a + b;

}

int withdraw(int a, int b) {

return a - b;

}

int main() {

cout << "----------------------------------------------------------------\n";

cout << "------------------- B A N K I N G S Y S T E M ----------------\n";

cout << "----------------------------------------------------------------\n\n";

info d;

selects s;

condi b;

cntr c;

comp com;

b.open = true;

c.accCntr = 0;

c.end = 0;

while (b.open) {

b.select = true;

cout << "-- LOG IN AS -- \n";

cout << " [1] ADMIN \n [2] USER \n [3] EXIT \n";

cout << "Select a method of log in : ";

cin >> s.mainSel;

while (b.select) {

b.adminSel = true;

// ADMIN

if (s.mainSel == 1) {

c.start = 0;

cout << "Enter Password (to exit enter '0') : ";

cin >> s.adminPass;

while (b.adminSel) {

if (s.adminPass == 1234) {

cout << "\n-- WHAT TO DO? -- \n";

cout << " [1]ADD ACCOUNT\n [2]DELETE ACCOUNT\n [3]VIEW ALL ACCOUNT \n [4]EXIT\nChoose transaction : ";

cin >> s.adminSel;

// ADD ACCOUNT

if (s.adminSel == 1) {

for (int i = c.start; i < 10; i++) {

cout << "\n-- FILL UP --\n";

cout << "Account Number : ";

cin >> d.accNum[i];

cout << "Name : ";

cin.ignore();

getline(cin, d.name[i]);

cout << "Address : ";

getline(cin, d.address[i]);

cout << "Age : ";

cin >> d.age[i];

cout << "Balance : PhP ";

cin >> d.balance[i];

cout << "Pin Code : ";

cin >> d.pincode[i];

c.accCntr++;

c.start++;

ofstream myfile("userAccount.txt", ios::app);

myfile << "\n----------------- " << d.name[i] << " ACCOUNT ------------------\n";

myfile << d.accNum[i] << ", " << d.name[i] << ", " << d.address[i] << ", " << d.age[i] << ", " << d.balance[i] << ", " << d.pincode[i] << endl;

myfile << "--------------------------------------------------\n";

myfile.close();

if (c.accCntr==10) {

break;

}

cout << "Continue to add account? [Y/N] : ";

cin >> s.cont;

if ((s.cont == 'N')||(s.cont == 'n')) {

break;

}

}

}

// DELETE ACCOUNT

else if (s.adminSel == 2) {

b.adminDel=true;

while (b.adminDel) {

cout << "\n\n------------------------ ALL ACCOUNT ------------------------\n";

cout << "\tNUMBER\t\tNAME\t\tBALANCE \n";

for (int x = 0; x < c.accCntr; x++) {

cout <<"\t[" << x+1 << "]\t\t" << d.name[x] << "\t\t" << d.balance[x] << endl;

}

cout << "-------------------------------------------------------------\n";

cout << "Enter the number to be deleted (to exit enter '0'): ";

cin >> s.adminDel;

if (s.adminDel == 0) {

b.adminDel = false;

break;

}

if (s.adminDel <= c.accCntr && s.adminDel >= 1) {

for (int i = s.adminDel - 1; i < c.accCntr - 1; i++) {

d.accNum[i] = d.accNum[i + 1];

d.name[i] = d.name[i + 1];

d.address[i] = d.address[i + 1];

d.age[i] = d.age[i + 1];

d.balance[i] = d.balance[i + 1];

d.pincode[i] = d.pincode[i + 1];

}

c.accCntr--;

c.start--;

cout << "-- DELETED ACCOUNT! --\n\n";

} else {

cout << "-- INVALID INPUT! --\n\n";

}

}

//RESET TEXT FILE

for (int n = 0; n < 1; n++) {

ofstream myfile("userAccount.txt",ios::ate);

for (int a=0; a < c.accCntr; a++) {

ofstream reset("userAccount.txt", ios::app);

reset << "\n----------------- " << d.name[a] << " ACCOUNT ------------------\n";

reset << d.accNum[a] << ", " << d.name[a] << ", " << d.address[a] << ", " << d.age[a] << ", " << d.balance[a] << ", " << d.pincode[a] << endl;

reset << "--------------------------------------------------\n";

reset.close();

}

myfile.close();

}

}

// VIEW ALL ACCOUNT

else if (s.adminSel == 3) {

cout << "\n\n------------------------ ALL ACCOUNT ------------------------\n"; cout << "Format (Account Number, Name, Address, Age, Balance, Pin Code)\n";

for (int x = 0; x < c.accCntr; x++) {

cout << " [" << x+1 << "] " << d.accNum[x] << ", " << d.name[x] << ", " << d.address[x] << ", " << d.age[x] << ", " << d.balance[x] << ", " << d.pincode[x] << endl;

}

cout << "-------------------------------------------------------------";

cout << endl << endl;

}

// EXIT

else if (s.adminSel == 4) {

b.adminSel = false;

b.select = false;

cout << "\n";

} else {

cout << "-- INVALID INPUT! --\n\n";

}

//EXIT-0

} else if (s.adminPass == 0) {

cout << endl;

b.select = false;

break;

//INVALID

} else {

cout << "-- INVALID PASSWORD! --\n\n";

b.adminSel=false;

}

}

}

// USER

else if (s.mainSel == 2) {

b.userSel = true;

cout << "Enter your account pin code (to exit enter '0'): ";

cin >> s.userPin;

while (b.userSel) {

if (s.userPin == 0) {

b.userSel = false;

b.select = false;

cout << endl;

break;

} else {

bool accountFound = false;

int accountIndex = 0;

for (int p = 0; p < c.accCntr; p++) {

if (s.userPin == d.pincode[p]) {

accountFound = true;

accountIndex = p;

break;

}

}

if (accountFound) {

cout << "\n---------------------- TRANSACTION ----------------------\n";

cout << "Hello " << d.name[accountIndex] << ", Welcome to our Banking System!\n";

cout << " [1]Balance\n [2]Deposit\n [3]Withdraw\n [4]Exit\n";

cout << "Choose a transaction: ";

cin >> s.userSel;

switch (s.userSel) {

//BALANCE

case 1:

cout << "\n------------- YOUR BALANCE -------------\n";

cout << " Name : " << d.name[accountIndex] << endl;

cout << " Balance : Php " << d.balance[accountIndex]<< endl;

cout << "----------------------------------------\n";

break;

//DEPOSIT

case 2:

cout << "Your current balance: " << d.balance[accountIndex] << endl;

cout << "How much to deposit: Php ";

cin >> com.deposit;

d.balance[accountIndex] += com.deposit;

cout << "--------------------------------------\n";

cout << "New Balance: PhP " << d.balance[accountIndex] << endl;

cout << "--------------------------------------\n";

break;

//WITHDRAW

case 3:

cout << "Your current balance: " << d.balance[accountIndex] << endl;

cout << "How much to withdraw: PhP ";

cin >> com.withdraw;

if (com.withdraw <= d.balance[accountIndex]) {

d.balance[accountIndex] -= com.withdraw;

cout << "--------------------------------------\n";

cout << "New Balance: PhP " << d.balance[accountIndex] << endl;

cout << "--------------------------------------\n";

} else {

cout << "-- INSUFFICIENT FUNDS --\n";

}

break;

//EXIT

case 4:

b.userSel = false;

b.select = false;

cout << endl;

break;

//INVALID

default:

cout << "-- INVALID INPUT --\n\n";

break;

}

// Update the "userAccount.txt" text file

ofstream myfile("userAccount.txt", ios::ate);

for (int a = 0; a < c.accCntr; a++) {

ofstream reset("userAccount.txt", ios::app);

reset << "\n----------------- " << d.name[a] << " ACCOUNT ------------------\n";

reset << d.accNum[a] << ", " << d.name[a] << ", " << d.address[a] << ", " << d.age[a] << ", " << d.balance[a] << ", " << d.pincode[a] << endl;

reset << "--------------------------------------------------\n";

reset.close();

}

myfile.close();

} else {

cout << "-- ACCOUNT NOT FOUND! --\n\n";

b.userSel=false;

}

}

}

}

// EXIT

else if (s.mainSel == 3) {

cout << "\n----------------------------------------------------------------";

cout << "\n--------------------THANK YOU FOR INQUIRING!---------------------";

cout << "\n----------------------------------------------------------------\n\n";

b.open = false;

break;

}

// INVALID

else {

cout << "-- INVALID INPUT! --\n\n";

break;

}

}

}

return 0;

}