ATM PLUS

#include <iostream>  
using namespace std;  
class ATM  
{  
 protected:  
 int cash = 50000; // initial cash in ATM  
 public:  
 void showBalance ()  
 {  
 cout << "Available balance in the ATM : " << cash << endl;  
 }  
  
 void withdraw (int amount)  
 {  
 try  
 {  
 if (amount > cash)  
 {  
 throw "Insufficient balance";  
 }  
 else if (amount % 100 != 0)  
 {  
 throw "Invalid amount, please enter amount in multiples of 100";  
 }  
 else  
 {  
 cash -= amount;  
 cout << "Please collect your cash: " << amount << endl;  
 cout << "Current balance in the ATM: " << cash << endl;  
 }  
 }  
 catch (const char \*msg)  
 {  
 cout << "Error: " << msg << endl;  
 }  
 }  
  
 void deposit (int amount)  
 {  
 try  
 {  
 if (amount % 100 != 0)  
 {  
 throw "Invalid amount, please enter amount in multiples of 100";  
 }  
 else  
 {  
 cash += amount;  
 cout << "Deposit successful" << endl;  
 cout << "Current balance in the ATM: " << cash << endl;  
 }  
 }  
 catch (const char \*msg)  
 {  
 cerr << "Error: " << msg << endl;  
 }  
 }  
};  
  
class UserDetails  
{  
 private:  
 string names[5] =  
 {  
 "Mary", "Nick", "Anny", "Eve", "Mick"};  
 int passwords[5] = { 1234, 5678, 9012, 3456, 7890 };  
 bool isActive[5] = { true, true, true, true, true };  
 public:  
 bool verifyUser (string name, int password)  
 {  
 try  
 {  
 for (int i = 0; i < 5; i++)  
 {  
  
 if (names[i] == name && passwords[i] == password)  
 {  
 return true;  
 }  
 }  
 throw name;  
  
 }  
 catch (string name)  
 {  
 cout << "invalid password" << endl;  
  
 }  
 return false;  
 }  
  
 bool isAccountActive (string name)  
 {  
 for (int i = 0; i < 5; i++)  
 {  
 if (names[i] == name)  
 {  
 return isActive[i];  
 cout << "Your account is active" << endl;  
 }  
 }  
 return false;  
 cout << "Your account is inactive" << endl;  
 }  
};  
  
class ShowDetails:public ATM, public UserDetails  
 {  
public:  
 void start ()  
 {  
 string name;  
 int password;  
 cout << "Enter your name: ";  
 cin >> name;  
 cout << "Enter your password: ";  
 cin >> password;  
 if (verifyUser (name, password))  
 {  
 if (isAccountActive (name))  
 {  
 char choice;  
 do  
 {  
 cout << "\nEnter your choice\n";  
 cout << "A. Check balance\n";  
 cout << "B. Withdraw cash\n";  
 cout << "C. Deposit Cash\n";  
 cout << "D. Exit\n";  
 cin >> choice;  
  
 switch (choice)  
 {  
 case 'A':  
 showBalance ();  
 break;  
 case 'B':int amount;  
 cout << "Enter withdrawal amount: ";  
 cin >> amount;  
 withdraw (amount);  
 break;  
 case 'C':cout << "Enter deposit amount: ";  
 cin >> amount;  
 deposit (amount);  
 break;  
 case 'D':cout << "Thank you for using our ATM" << endl;  
 break;  
default:cout << "Invalid choice" << endl;  
 break;  
 }  
 }  
 while (choice != 'D');  
 }  
 else  
 {  
 cout << "Your account is not active" << endl;  
 }  
 }  
 else  
 {  
 cout << "Invalid credentials" << endl;  
 }  
 }  
 };  
  
 int  
 main ()  
 {  
 ShowDetails customer;  
 customer.start ();  
 return 0;  
 }