

```

#include <iostream>
#include <time.h>
#include <fstream>
#include <conio.h>
#include <string.h>
#include <stdlib.h>
using namespace std;

class Bank
{
public:
    virtual void deposit()=0;
    double limit;

};

template<class t1>
class Account:public Bank
{
    t1 acname;
    string b,d,branch;
    double acNo,a;
    static double acBalance;
    int pin,c;

public:
    friend void accountExit();
    Account(t1 acname,t1 branch)
    {
        system("cls");
        this->b=acname;
        this->d=branch;
    }
    void operator +()
    {
        cout<<"Addition of pin & account no is "<<a+c<<endl;
        system("pause");
        system("cls");
        cout<<"Hey "<<b<<" You are at SBI Branch "<<d<<endl;
    }

    void getdata(double acNo)
    {
        cout<<"Checking the Data"<<endl;
        this->a=acNo;
    }

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        system("pause");
    }

void getdata(int pin)
{
    Account p(acname,branch);
    ofstream f;
    f.open("xyz.txt");
    f.write((char *)&p, sizeof(p));
    this->c=pin;
    cout<<"Enter the Recent balance:"<<endl;
    cin>>acBalance;
}

void deposit()
{
    system("cls");
    cout<<"\nATM ACCOUNT DEPOSIT SYSTEM";           cout<<"\n\nThe Names of the Account
Holder is :"<<b<<"\n\n";
    cout<<"\tThe Branch location is :"<<d<<"\n\n";
    cout<<"\tAccount number :"<<a<<"\n\n";           cout<<"\tPresent available
balance :$"<<acBalance<<"\n\n";
    cout<<"\tEnter the Amount to be Deposited $";

    double amount;
    cin>>amount;
    acBalance=acBalance+amount ;
    cout<<"\n\tYour new available Balanced Amount is $"<<acBalance<<endl ;
    cout<<"\n\t\t\tThank You!\n\n"<<endl;
    cout<<"Press any key to Return to the Main Menu\n\n";
    system("pause");
}

void withdraw()
{
    system("cls");
    cout<<"\nATM ACCOUNT WTHDRAWAL";
    cout<<"\n\nThe Names of the Account Holders is :"<<b<<"\n\n";
    cout<<"\tThe Branch location is :"<<d<<"\n\n";
    cout<<"\tAccount number :"<<a<<"\n\n";           cout<<"\tPresent available
balance :$"<<acBalance<<"\n\n";
    cout<<"\tEnter the Amount to be Withdrawn $";
    double amount;

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        cin>>amount;
        if(amount>acBalance||amount>9000)//
        {
            try
            {
                system("cls");
                throw amount;
            }
            catch(double amount)
            {
                cout<<" ATM ACCOUNT WITHDRAWAL Exception";
                cout<<"\n\tInsufficient Available Balance in your account.\n\n"<<endl;
                cout<<"\t\t\tSorry !!\n"<<endl;
                system("pause");
            }
        }
        else
        {
            acBalance=acBalance-amount ;
            system("cls");
            cout<<"\nATM ACCOUNT WTHDRAWAL \n";
            cout<<"\n\nThe Names of the Account Holders is :."<<b<<"\n\n";
            cout<<"\tThe Branch location is :."<<d<<"\n\n";
            cout<<"\tAccount number :."<<a<<"\n\n";
            cout<<"Your new available Balanced Amount is $"<<Account::getcount()<<endl ;
            cout<<"Press any key to Return to the Main Menu\n\n";
            system("pause");
        }

    }
    void details()
    {
        system("cls");
        cout<<"\nATM ACCOUNT DETAILS \n";
        cout<<"\n\nThe Names of the Account Holder is :."<<b<<"\n\n";
        cout<<"\tThe Branch location is :."<<d<<"\n\n";
        cout<<"\tAccount number :."<<a<<"\n\n";
        cout<<"\tAvailable Balance:"<<acBalance<<"\n\n";
        cout<<"Press any key to Return to the Main Menu\n\n";
        system("pause");
    }
}

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static double getcount()
{
    return acBalance;
}

};

template<class t1>
double Account<t1>::acBalance;

void accountExit()
{
    system("cls");

    cout<<"\nATM ACCOUNT EXIT \n";
    cout<<"\n\n\t\t BROUGHT TO YOU BY SBI YONO Partners \n\n";

    system("pause");
    exit(1);
}

class A
{
public:
    friend class Security;
    int ifsc=9203;
};

    class Security
    {
    public:

        void data(A s1) {
            cout<<"Dont share your pin with anyone protect your Account and Privacy    IFSC for SBI
bank bhandara is  "<<s1.ifsc<<endl;
        }

    };

int main()
{
    int e;
    double acNo;
    int pin;

```

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        string acname,branch;
        Bank *bn;
        Security s1;
        A s2;

cout<<"\n=====
=====          WELCOME TO SBI ATM
=====
=====\\n";

cout<<"\\t\\t-----\\n"<<endl;
        cout << "\\t\\tCurrent date : ";
        time_t now;
        time(&now);

        printf("%s\\n", ctime(&now));
cout<<"\\t\\t-----\\n"<<endl;

cout<<"\\n=====
==\\n";
s1.data(s2);
cout<<"\\n=====
==\\n";
    cout<<"\\n\\tInsert your card Press 1 and Then Press Enter to Access   Your Account.\\n\\n";
        cout<<"\\t\\t\\t\\t\\t or \\n\\n";
cout<<"\\tInsert your card Press 0 and press Enter to get Help.\\n\\n";


        int access;
        cin>>access;
        switch(access)
        {
        case 1:
        {
        system("cls");
        cout<<"\\nREADING CHIP DATA\\n";
        cout<<"\\n ACCESSING YOUR ACCOUNT \\n";
        cout<<"\\n\\nEnter Your 4 Digit Pin!![Only one attempt is allowed]\\n\\n"<<endl;

        cin>>pin;
        system("cls");
        cout<<"Enter Account Holders Name"<<endl;
        cin>>acname;
        cout<<"Enter the Branch of your Account:"<<endl;
        cin>>branch;

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Account<string> p(acname,branch);
    bn=&p;
    p.getdata(pin);
    cout<<"Enter Account No"<<endl;
    cin>>acNo;
    p.getdata(acNo);

    if(to_string(pin).length()==4)

    {
        system("cls");

    do
    {
        system("cls");

        +p;
        cout << endl << "\n ATM Main Menu Screen \n" << endl << endl;

        cout << "\t\tPress1 To Deposit Cash" << endl;
        cout << "\t\tPress 2 To Withdraw Cash" << endl;
        cout << "\t\tPress 3 To Balance Inquiry" << endl;
        cout << "\t\tPress 0 To Exit ATM" << endl << endl;
        cout << "\tPLEASE ENTER A VALID SELECTION AND PRESS ENTER KEY: \n\n";

        cin>>e;
        switch(e)
        {
            case 1:
                bn->deposit();
                break;
            case 2:
                p.withdraw();
                break;
            case 3:
                p.details();
                break;
            case 0:
                accountExit();
                break;
            default:cout<<"Please Enter the Correct Number Choice"<<endl;
        }
    }while(e!=0);

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        break;
    }

    else
    {
        system("cls");

        cout<<" THANK YOU ";
        cout<<"\nIncorrect PIN!!! No More attempts allowed!! Data Not Matched!!!!
Sorry!!\n\n";
        system("pause");
        exit (1);
    }

    }

    case 0:
    {
        system("cls");

        cout<<"\nATM ACCOUNT STATUS \n";
        cout<<"\tYou must have the correct pin number to access this account.
Contact your bank representative for assistance during bank    opening hours\n\n";
        cout<<"\t\tThanks for, your choice today!!\n\n";

        system ("pause");
        exit(1);
        break;
    }
}
system("pause");
return 0;

};

```

**OUTPUT:-**

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```
=====
===== WELCOME TO SBI ATM =====
=====
-----
Current date : Tue Apr 28 13:27:57 2020
-----

=====
Dont share your pin with anyone protect your Account and Privacy
IFSC for SBI bank bhandara is 9203
=====

Insert your card Press 1 and Then Press Enter to Access
Your Account.

or

Insert your card Press 0 and press Enter to get Help.
0█
```

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```
ATM ACCOUNT STATUS
You must have the correct pin number to access this account.
Contact your bank representative for assistance during bank
opening hours

Thanks for, your choice today!!

Press any key to continue . . .
█
```



```
←          TAB          _          ⋮
=====
===== WELCOME TO SBI ATM =====
=====
-----
Current date : Tue Apr 28 13:28:06 2020
-----
=====
Dont share your pin with anyone protect your Account and Privacy
IFSC for SBI bank bhandara is 9203
=====
Insert your card Press 1 and Then Press Enter to Access
Your Account.

or

Insert your card Press 0 and press Enter to get Help.
1
```

```
←          TAB          _          ⋮
READING CHIP DATA
ACCESSING YOUR ACCOUNT

Enter Your 4 Digit Pin!![Only one attempt is allowed]
1234
```

```
←          TAB          _          ⋮
Enter Account Holders Name
Chirag
Enter the Branch of your Account:
Bhandara
```

```
← TAB _ ⋮
Enter the Recent balance:
4560
Enter Account No
5678
Checking the Data
Press any key to continue . . .
█
```

```
← TAB _ ⋮
Hey chirag You are at SBI Branch Bhandara

ATM Main Menu Screen

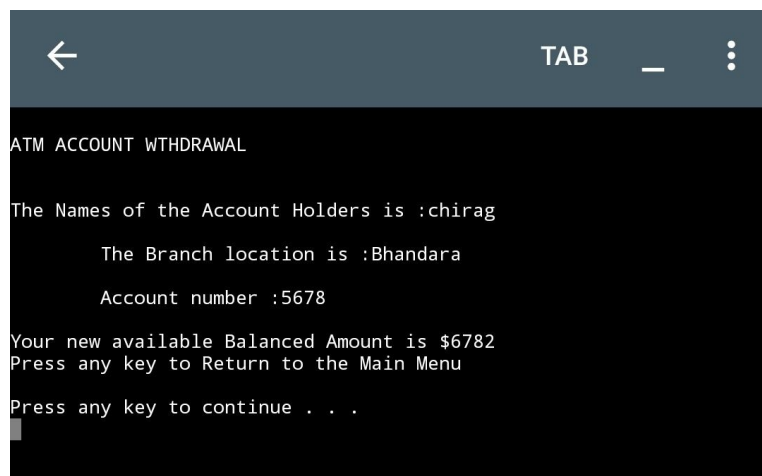
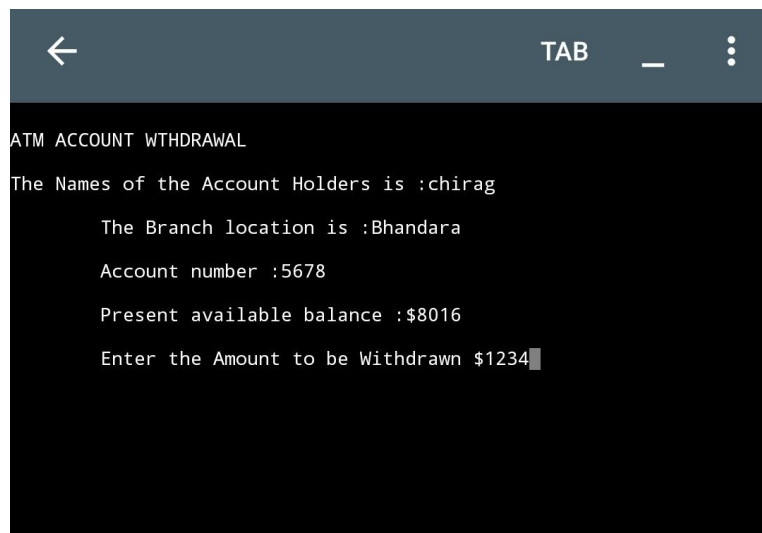
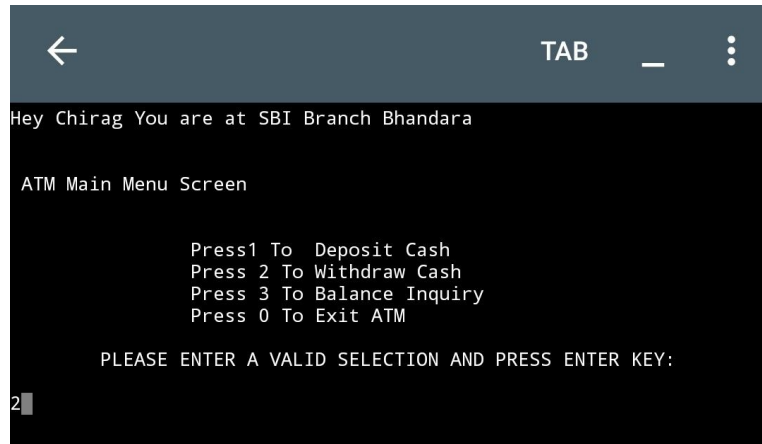
        Press1 To Deposit Cash
        Press 2To Withdraw Cash
        Press 3 To Balance Inquiry
        Press 0 to Exit ATM

        PLEASE ENTER A VALID SELECTION AND PRESS ENTER KEY:
1█
```

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ATM ACCOUNT DEPOSIT SYSTEM
The Names of the Account Holder is :chirag
        The Branch location is :Bhandara
        Account number :5678
        Present available balance :$4560
        Enter the Amount to be Deposited $ 3456
        Your new available Balanced Amount is $8016

                Thank You!

Press any key to Return to the Main Menu
Press any key to continue . . .
█
```



ATM ACCOUNT WITHDRAWAL

The Names of the Account Holders is :chirag

The Branch location is :Bhandara

Account number :5678

Present available balance :\$6782

Enter the Amount to be Withdrawn \$7000

ATM ACCOUNT WITHDRAWAL Exception

Insufficient Available Balance in your account.

Sorry !!

Press any key to continue . . .

Hey Chirag You are at SBI Branch Bhandara

ATM Main Menu Screen

Press1 To Deposit Cash  
Press 2 To Withdraw Cash  
Press 3 To Balance Inquiry  
Press 0 To Exit ATM

PLEASE ENTER A VALID SELECTION AND PRESS ENTER KEY:

3

```
← TAB _ ⋮
ATM ACCOUNT DETAILS

The Names of the Account Holder is :Chirag
    The Branch location is :Bhandara
    Account number :5678
    Available Balance:6782
Press any key to Return to the Main Menu
Press any key to continue . . .
█
```

```
← TAB _ ⋮
Hey Chirag You are at SBI Branch Bhandara

ATM Main Menu Screen

    Press1 To Deposit Cash
    Press 2 To Withdraw Cash
    Press 3 To Balance Inquiry
    Press 0 To Exit ATM

    PLEASE ENTER A VALID SELECTION AND PRESS ENTER KEY:
0█
```

```
← TAB _ ⋮
ATM ACCOUNT EXIT

    BROUGHT TO YOU BY SBI YONO Partners
Press any key to continue . . .
[Program finished]█
```