

```

/*****
/***** Name:- Divesh Uttamchandani *****/
/***** Class :- XII A *****/
/***** Date :- 10 August 2014 *****/
/***** Q-11):- Bank File *****/
/*****

```

```

#include<fstream.h>
#include<stdio.h>
#include<conio.h>
#include<string.h>
#include<ctype.h>
#include<process.h>

```

```

//////////Global Variable To Handle Initial a/c No//////////
int initial_acno=1000;
//////////

```

```

////////// Declaration & Definition of Structure Date//////////
struct date
{
int dd;
int mm;
int yy;
};
//////////

```

```

////////// Declaration & Definition of Class Master//////////
class master
{
int acno;
char nm[20];
float bal;
public:
// _____//
master()
{
acno=initial_acno-1;
strcpy(nm,"null");
bal=0;
}
// .....//
~master()
{
cout<<" ";
}
// _____//

```

```
//
void enter(int tacno)
{
cout<<"\nEnter Name\t\t";    gets(nm);
cout<<"Enter Initial Balance\t";    cin>>bal;
acno=tacno;
cout<<"Account no. assigned\t"<<acno;
}
//.....//

void display()
{
cout<<"\nAccount No.\t"<<acno;
cout<<"\nName\t\t"<<nm;
cout<<"\nCurrent Balance\t"<<bal;
}
//.....//

void displayt()    //for tabular form in func. dispall()
{
cout<<acno<<"\t"<<nm<<"\t\t"<<bal;
}
//.....//

int withdraw(float w_amt)
{
if(bal-w_amt>=1000)
{
bal-=w_amt;
cout<<"\n\nWithdrawal Successful\nCurrent A/C status is\n";
display();
return 1;
}
else
{
cout<<"\nWithdrawal Could Not Be completed due to Insufficient Balance\n";
display();
return 0;
}
}
//.....//

int deposit(float d_amt)
{
bal+=d_amt;
cout<<"\nDeposit Sucessful\nCurrent A/C status is\n";
display();
return 1;
}
//.....//

int retacno()
{
return acno;
}
};
////////////////////////////////////
```

```

/////////////////////////////////Declaration & Definition of Class Transaction/////////////////////////////////
class transaction
{
    int tacno;
    date tdate;
    char ttype;
    float tamt;
public:
// .....//
    transaction()
    {
        tacno=0;
        tdate.dd=1; tdate.mm=1; tdate.yy=2000;
        ttype='n';
        tamt=0.0;
    }
// .....//
    ~transaction()
    {
        cout<<" ";
    }
// .....//
    void create(int acno,date d,char type,float amt)
    {
        tacno=acno;
        tdate=d;
        ttype=type;
        tamt=amt;
    }
// .....//
    void display()
    {
        cout<<"\n"<<tacno<<"\t"<<tdate.dd<<"/"<<tdate.mm<<"/"<<tdate.yy<<"\t"<<ttype<<"\t"
            <<tamt;
    }
// .....//
    int retacno()
    {
        return tacno;
    }
};
/////////////////////////////////Declaration of Functions/////////////////////////////////
void newac();
void delac();
void withdraw();
void deposit();
void dispreq();
void dispall();
void dispreqtrans(int tacno);
void disp_acwise_trans();
/////////////////////////////////

```

```

//*****Void Main()*****//
void main()
{
int choice;

do
{
clrscr();
cout<<"\nMain Menu\n"
<<"\n1)\tNew Account"
<<"\n2)\tDelete Account"
<<"\n3)\tWithdraw Money"
<<"\n4)\tDeposit Money"
<<"\n5)\tDisplay Required"
<<"\n6)\tDisplay All"
<<"\n7)\tDisplay Account-Wise Transaction Details"
<<"\n8)\tExit"
<<"\n\nEnter Your Choice (1-8)\t"; cin>>choice;

switch(choice)
{
case 1:
newac();
break;
case 2:
delac();
break;
case 3:
withdraw();
break;
case 4:
deposit();
break;
case 5:
dispreq();
break;
case 6:
dispall();
break;
case 7:
disp_acwise_trans();
break;
case 8:
exit(0);
break;
default:cout<<"Invalid Choice:";
}
cout<<"\n\nPress Y to Continue\n";
}while(toupper(getche())=='Y');
}
//*****End Of Main*****//

```

```

/////////////////////////////////Defination of Functions/////////////////////////////////
//
void newac()
{
cout<<"\n\nPress Any Key To Clear Screen";
getche();
clrscr();

cout<<"\nWelcome To New Acccout Creation\n";
int acno;
master m;
ifstream fin;

fin.open("master.dat",ios::binary);
if(!fin)
    acno=initail_acno;
else
    {
        fin.seekg(-(int)sizeof(m),ios::end);
        fin.read((char*)&m,sizeof(m));
        acno=m.retacno()+1;
    }
fin.close();

//now m used to get last account no is of no use hence it is again used to
//enter ac details
m.enter(acno);
//opening master.dat in out (append) mode
ofstream fout;
fout.open("master.dat",ios::binary|ios::app);
if(!fout)
    cout<<"Error In Opening File /'Master/'";
else
    {
        fout.write((char*)&m,sizeof(m));
    }
}
//
//

void delac()
{
cout<<"\n\nPress Any Key To Clear Screen";
getche();
clrscr();

master m;
int tacno;
ifstream fin;
ofstream tfout;
int flag=0;
cout<<"Enter The Account No. That You Want to Delete"; cin>>tacno;

```

```

fin.open("master.dat",ios::binary);
tfout.open("temp.dat",ios::binary);

if(!fin||!tfout)
    cout<<"Error, The file(s) Couldn't be Opened";
else
{
    fin.seekg(0);
    while(fin.read((char*)&m,sizeof(m)))
    {
        if(m.retacno()!=tacno)
            tfout.write((char*)&m,sizeof(m));
        else
            flag=1;    //to check if rec was found
    }
    if(flag==1)
    {
        //closing master and temp
        fin.close();
        tfout.close();
        remove("master.dat");
        rename("temp.dat","master.dat");
        cout<<"\nGiven A/C deleted from \'master.dat\'";

        //deleting transactions
        cout<<"\nDeleting Transactions(if any)";
        cout<<"\nPress Any Key";
        getch();
        cout<<"\n\n";

        fin.open("trans.dat",ios::binary);
        tfout.open("temp.dat",ios::binary);
        if(!fin||!tfout)
            cout<<"\nThe File Transactions or Temp Couldn't Be Opened";
        else
        {
            transaction t;
            fin.seekg(0);
            while(fin.read((char*)&t,sizeof(t)))
            {
                if(t.retacno()!=tacno)
                    tfout.write((char*)&t,sizeof(t));
            }
            fin.close();
            tfout.close();

            remove("trans.dat");
            rename("temp.dat","trans.dat");
            cout<<"\n Transactions Deleted";
        }
    }
}
else

```

```

    {
    cout<<"\n A/C not found";
    fin.close();
    tfout.close();
    remove("temp.dat");
    }
}
}
// _____ //

// _____ //
void withdraw()
{
cout<<"\n\nPress Any Key To Clear Screen";
getche();
clrscr();

int tacno;
int flag_found=0;
int flag_success=0;
float tamt;
fstream finout;
master m;

finout.open("master.dat",ios::binary|ios::out|ios::ate|ios::in|ios::nocreate);

cout<<"\n\nEnter A/C no.\t";   cin>>tacno;

if(!finout)
    cout<<"error, file \'master.dat\' couldn't be opened";
else
    {
    finout.seekg(0);
    while(finout.read((char*)&m,sizeof(m)))
        {
            if(m.retacno()==tacno)
            {
                flag_found=1;
                break;
            }
        }
    if(flag_found==1)
    {
        cout<<"Enter Amount You Want to Withdraw";   cin>>tamt;
        flag_success=m.withdraw(tamt);
        finout.seekg(-(int)sizeof(m),ios::cur);
        finout.write((char*)&m,sizeof(m));
    }
    else
        cout<<"Account not found";

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```

        finout.close();

//writing the transaction in file trans.dat
    if(flag_success==1)
    {
        ofstream fout;
        fout.open("trans.dat",ios::binary|ios::app);

        if(!fout)
            cout<<"Error File \'transaction.dat\' could not be opened";
        else
        {
            transaction t;
            date d;
            cout<<"\nEnter Date Of Transaction\n";
            cout<<"\nDate(dd)"; cin>>d.dd;
            cout<<"\nMonth(mm)"; cin>>d.mm;
            cout<<"\nYear(yy)"; cin>>d.yy;
            t.create(tacno,d,'w',tamt);
            fout.write((char*)&t,sizeof(t));
            fout.close();
        }
    }
}
// _____ //

// _____ //
void deposit()
{
    cout<<"\n\nPress Any Key To Clear Screen";
    getch();
    clrscr();

    int tacno;
    int flag_found=0;
    int flag_success=0;
    float tamt;
    fstream finout;
    master m;

    finout.open("master.dat",ios::binary|ios::out|ios::ate|ios::in|ios::nocreate);

    cout<<"\nEnter A/C no.\t"; cin>>tacno;

    if(!finout)
        cout<<"error, file \'master.dat\' couldn't be opened";

```



```

else
{
    finout.seekg(0);
    while(finout.read((char*)&m,sizeof(m)))
    {
        if(m.retacno()==tacno)
        {
            flag_found=1;
            break;
        }
    }
    if(flag_found==1)
    {
        cout<<"Enter Amount You Want to Deposit";    cin>>tamt;
        flag_success=m.deposit(tamt);

        finout.seekg(-(int)sizeof(m),ios::cur);
        finout.write((char*)&m,sizeof(m));
    }
    else
        cout<<"Account not found";

    finout.close();

    //writing the transaction in file trans.dat
    if(flag_success==1)
    {
        ofstream fout;
        fout.open("trans.dat",ios::binary|ios::app);

        if(!fout)
            cout<<"Error File \'transaction.dat\' could not be opened";
        else
        {
            transaction t;
            date d;
            cout<<"\nEnter Date Of Transaction\n";
            cout<<"\nDate(dd)"; cin>>d.dd;
            cout<<"\nMonth(mm)"; cin>>d.mm;
            cout<<"\nYear(yy)"; cin>>d.yy;
            t.create(tacno,d,'d',tamt);
            fout.write((char*)&t,sizeof(t));
            fout.close();
        }
    }
}

}
//

```

```
// _____//
void dispreq()
{
cout<<"\n\nPress Any Key To Clear Screen";
getche();
clrscr();

master m;
int tacno;
ifstream fin;
int flag=0;

cout<<"Enter The Account No. That You Want to Display";      cin>>tacno;

fin.open("master.dat",ios::binary);

if(!fin)
    cout<<"Error, The file Couldn't be Opened";
else
    {
    fin.seekg(0);
    while(fin.read((char*)&m,sizeof(m)))
        {
            if(m.retacno()==tacno)
                {
                    m.display();
                    flag=1;      //to check if rec was found
                    cout<<"\n\nDo You Want To Display Transactions Also(Y/N)";
                    if(toupper(getche())=='Y')
                        dispreqtrans(tacno);
                    break;
                }
        }
    if(flag==0)
        {
            cout<<"Not found";
        }
    fin.close();
    }
}
// _____//

// _____//
```

```
void dispall()
{
cout<<"\n\nPress Any Key To Clear Screen";
getche();
clrscr();
master m;
ifstream fin;
```

```

fin.open("master.dat",ios::binary);

if(!fin)
    cout<<"Error, The file Couldn't be Opened";
else
    {
        cout<<"\nA/C No\tName\tBal\n\n";
        fin.seekg(0);
        while(fin.read((char*)&m,sizeof(m)))
            {
                m.displayt();
                cout<<"\n";
            }
        fin.close();
    }
}
//_____//

void dispreqtrans(int tacno)
{
    transaction t;
    ifstream fin;
    int flag_found=0;

    fin.open("trans.dat",ios::binary);

    if(!fin)
        cout<<"\nError, The file Couldn't be Opened";
    else
        {
            fin.seekg(0);
            while(fin.read((char*)&t,sizeof(t)))
                {
                    if(t.retacno()==tacno)
                        {
                            if(flag_found==0) //only for first time
                                {
                                    cout<<"\n\nacno\tdate\tttype\tamount\n";
                                }

                            t.display();
                            flag_found=1; //if rec was found
                        }
                }
            if(flag_found==0)
                {
                    cout<<"\nNo transactions found";
                    fin.close();
                }
        }
}
//_____//

```


OUTPUT

Main Menu

- 1) New Account
- 2) Delete Account
- 3) Withdraw Money
- 4) Deposit Money
- 5) Display Required
- 6) Display All
- 7) Display Account-Wise Transaction Details
- 8) Exit

Enter Your Choice (1-8) 1

Press Any Key To Clear Screen

Welcome To New Account Creation

Enter Name	Divesh
Enter Initial Balance	10000
Account no. assigned	1000

Press Y to Continue

Main Menu

- 1) New Account
- 2) Delete Account
- 3) Withdraw Money
- 4) Deposit Money
- 5) Display Required
- 6) Display All
- 7) Display Account-Wise Transaction Details
- 8) Exit

Enter Your Choice (1-8) 1

Press Any Key To Clear Screen_

Welcome To New Account Creation

Enter Name	Harsh
Enter Initial Balance	20000
Account no. assigned	1001

Press Y to Continue

Main Menu

- 1) New Account
- 2) Delete Account
- 3) Withdraw Money
- 4) Deposit Money
- 5) Display Required
- 6) Display All
- 7) Display Account-Wise Transaction Details
- 8) Exit

Enter Your Choice (1-8) 1

Press Any Key To Clear Screen_

Welcome To New Acccout Creation

Enter Name ABCD

Enter Initial Balance 1000

Account no. assigned 1002

Press Y to Continue

Main Menu

- 1) New Account
- 2) Delete Account
- 3) Withdraw Money
- 4) Deposit Money
- 5) Display Required
- 6) Display All
- 7) Display Account-Wise Transaction Details
- 8) Exit

Enter Your Choice (1-8) 2

Press Any Key To Clear Screen_

Enter The Account No. That You Want to Delete 1002

Given A/C deleted from 'master.dat'

Deleting Transactions(if any)

Press Any Key

The File Transactions or Temp Couldn't Be Opened

Press Y to Continue

_

Main Menu

- 1) New Account
- 2) Delete Account
- 3) Withdraw Money
- 4) Deposit Money
- 5) Display Required
- 6) Display All
- 7) Display Account-Wise Transaction Details
- 8) Exit

Enter Your Choice (1-8) 3

Press Any Key To Clear Screen_

Enter A/C no. 1000

Enter Amount You Want to Withdraw 1000

Withdrawal Successful
Current A/C status is

Account No. 1000

Name Divesh

Current Balance 9000

Enter Date Of Transaction

Date(dd) 10

Month(mm) 8

Year(yy) 2014

Press Y to Continue

Main Menu

- 1) New Account
- 2) Delete Account
- 3) Withdraw Money
- 4) Deposit Money
- 5) Display Required
- 6) Display All
- 7) Display Account-Wise Transaction Details
- 8) Exit

Enter Your Choice (1-8) 3

Press Any Key To Clear Screen

```
Enter A/C no.    1000
Enter Amount You Want to Withdraw    8001

Withdrawal Could Not Be completed due to Insufficient Balance

Account No.      1000
Name             Divesh
Current Balance  9000

Press Y to Continue
```

```
Main Menu

1)    New Account
2)    Delete Account
3)    Withdraw Money
4)    Deposit Money
5)    Display Required
6)    Display All
7)    Display Account-Wise Transaction Details
8)    Exit

Enter Your Choice (1-8) 3

Press Any Key To Clear Screen_
```

```
Enter A/C no.    1000
Enter Amount You Want to Withdraw    1000

Withdrawal Successful
Current A/C status is

Account No.      1000
Name             Divesh
Current Balance  8000
Enter Date Of Transaction

Date(dd)         10
Month(mm)        8
Year(yy)         2014

Press Y to Continue
```


Main Menu

- 1) New Account
- 2) Delete Account
- 3) Withdraw Money
- 4) Deposit Money
- 5) Display Required
- 6) Display All
- 7) Display Account-Wise Transaction Details
- 8) Exit

Enter Your Choice (1-8) 4

Press Any Key To Clear Screen_

Enter A/C no. 1000
Enter Amount You Want to Deposit 2000

Deposit Sucessful
Current A/C status is

Account No. 1000
Name Divesh
Current Balance 10000
Enter Date Of Transaction

Date(dd) 10
Month(mm) 8
Year(yy) 2014

Press Y to Continue

Main Menu

- 1) New Account
- 2) Delete Account
- 3) Withdraw Money
- 4) Deposit Money
- 5) Display Required
- 6) Display All
- 7) Display Account-Wise Transaction Details
- 8) Exit

Enter Your Choice (1-8) 4

Press Any Key To Clear Screen

```
Enter A/C no.    1001
Enter Amount You Want to Deposit    1999

Deposit Sucessful
Current A/C status is

Account No.      1001
Name             Harsh
Current Balance  21999
Enter Date Of Transaction

Date(dd)         11
Month(mm)        8
Year(yy)         2014

Press Y to Continue
```

```
Main Menu

1)      New Account
2)      Delete Account
3)      Withdraw Money
4)      Deposit Money
5)      Display Required
6)      Display All
7)      Display Account-Wise Transaction Details
8)      Exit

Enter Your Choice (1-8) 5

Press Any Key To Clear Screen_
```

```
Enter The Account No. That You Want to Display 1000

Account No.      1000
Name             Divesh
Current Balance  10000

Do You Want To Display Transactions Also(Y/N)Y

acno    date          type    amount
1000    10/8/2014      w       1000
1000    10/8/2014      w       1000
1000    10/8/2014      d       2000

Press Y to Continue
_
```

Main Menu

- 1) New Account
- 2) Delete Account
- 3) Withdraw Money
- 4) Deposit Money
- 5) Display Required
- 6) Display All
- 7) Display Account-Wise Transaction Details
- 8) Exit

Enter Your Choice (1-8) 5

Press Any Key To Clear Screen_

Enter The Account No. That You Want to Display 1001

Account No. 1001
Name Harsh
Current Balance 21999

Do You Want To Display Transactions Also(Y/N)N

Press Y to Continue

Main Menu

- 1) New Account
- 2) Delete Account
- 3) Withdraw Money
- 4) Deposit Money
- 5) Display Required
- 6) Display All
- 7) Display Account-Wise Transaction Details
- 8) Exit

Enter Your Choice (1-8) 6

Press Any Key To Clear Screen_

A/C No	Name	Bal
1000	Divesh	10000
1001	Harsh	21999

Press Y to Continue

Main Menu

- 1) New Account
- 2) Delete Account
- 3) Withdraw Money
- 4) Deposit Money
- 5) Display Required
- 6) Display All
- 7) Display Account-Wise Transaction Details
- 8) Exit

Enter Your Choice (1-8) ?

Press Any Key To Clear Screen

Transaction Details of A/C no. 1000

acno	date	type	amount
1000	10/8/2014	w	1000
1000	10/8/2014	w	1000
1000	10/8/2014	d	2000

Transaction Details of A/C no. 1001

acno	date	type	amount
1001	11/8/2014	d	1999

Press Y to Continue

Main Menu

- 1) New Account
- 2) Delete Account
- 3) Withdraw Money
- 4) Deposit Money
- 5) Display Required
- 6) Display All
- 7) Display Account-Wise Transaction Details
- 8) Exit

Enter Your Choice (1-8) 2

Press Any Key To Clear Screen

Enter The Account No. That You Want to Delete 1000

Given A/C deleted from 'master.dat'

Deleting Transactions(if any)

Press Any Key

Transactions Deleted

Press Y to Continue

Main Menu

- 1) New Account
- 2) Delete Account
- 3) Withdraw Money
- 4) Deposit Money
- 5) Display Required
- 6) Display All
- 7) Display Account-Wise Transaction Details
- 8) Exit

Enter Your Choice (1-8) 6

Press Any Key To Clear Screen

A/C No	Name	Bal
1001	Harsh	21999

Press Y to Continue

Main Menu

- 1) New Account
- 2) Delete Account
- 3) Withdraw Money
- 4) Deposit Money
- 5) Display Required
- 6) Display All
- 7) Display Account-Wise Transaction Details
- 8) Exit

Enter Your Choice (1-8) 7

Press Any Key To Clear Screen_

Transaction Details of A/C no. 1001

acno	date	type	amount
1001	11/8/2014	d	1999

Press Y to Continue

_