```
//***************************************************************
//                HEADER FILE USED IN PROJECT
//***************************************************************

#include<iostream>
#include<fstream>
#include<cctype>
#include<iomanip>
using namespace std;

//***************************************************************
//                CLASS USED IN PROJECT
//***************************************************************

class account
{
   int acno;
   char name[50];
   int deposit;
   char type;
public:
   void create_account();    //function to get data from user
   void show_account() const;    //function to show data on screen
   void modify();    //function to add new data
   void dep(int);    //function to accept amount and add to balance amount
   void draw(int);    //function to accept amount and subtract from balance amount
   void report() const;    //function to show data in tabular format
   int retacno() const;    //function to return account number
   int retdeposit() const;    //function to return balance amount
   char rettype() const;    //function to return type of account
};        //class ends here

void account::create_account()
{
   cout<<"\nEnter The account No. : ";
   cin>>acno;
   cout<<"\n\nEnter The Name of The account Holder : ";
   cin.ignore();
   cin.getline(name,50);
   cout<<"\nEnter Type of The account (C/S) : ";
   cin>>type;
   type=toupper(type);
   cout<<"\nEnter The Initial amount(>=500 for Saving and >=1000 for current ) : ";
   cin>>deposit;
   cout<<"\n\n\nAccount Created..";
}

void account::show_account() const
```

```
{
   cout<<"\nAccount No. : "<<acno;
   cout<<"\nAccount Holder Name : ";
   cout<<name;
   cout<<"\nType of Account : "<<type;
   cout<<"\nBalance amount : "<<deposit;
}


void account::modify()
{
   cout<<"\nAccount No. : "<<acno;
   cout<<"\nModify Account Holder Name : ";
   cin.ignore();
   cin.getline(name,50);
   cout<<"\nModify Type of Account : ";
   cin>>type;
   type=toupper(type);
   cout<<"\nModify Balance amount : ";
   cin>>deposit;
}


void account::dep(int x)
{
   deposit+=x;
}

void account::draw(int x)
{
   deposit-=x;
}

void account::report() const
{
   cout<<acno<<setw(10)<<" "<<name<<setw(10)<<"
"<<type<<setw(6)<<deposit<<endl;
}

int account::retacno() const
{
   return acno;
}

int account::retdeposit() const
{
   return deposit;
}
```

```
char account::rettype() const
{
   return type;
}


//***************************************************************
//       function declaration
//***************************************************************
void write_account();    //function to write record in binary file
void display_sp(int);    //function to display account details given by user
void modify_account(int);    //function to modify record of file
void delete_account(int);    //function to delete record of file
void display_all();       //function to display all account details
void deposit_withdraw(int, int); // function to desposit/withdraw amount for given
account
void intro();    //introductory screen function

//***************************************************************
//       THE MAIN FUNCTION OF PROGRAM
//***************************************************************

int main()
{
   char ch;
   int num;
   intro();
   do
   {
      system("cls");
      cout<<"\n\n\n\tMAIN MENU";
      cout<<"\n\n\t01. NEW ACCOUNT";
      cout<<"\n\n\t02. DEPOSIT AMOUNT";
      cout<<"\n\n\t03. WITHDRAW AMOUNT";
      cout<<"\n\n\t04. BALANCE ENQUIRY";
      cout<<"\n\n\t05. ALL ACCOUNT HOLDER LIST";
      cout<<"\n\n\t06. CLOSE AN ACCOUNT";
      cout<<"\n\n\t07. MODIFY AN ACCOUNT";
      cout<<"\n\n\t08. EXIT";
      cout<<"\n\n\tSelect Your Option (1-8) ";
      cin>>ch;
      system("cls");
      switch(ch)
      {
      case '1':
         write_account();
         break;
```

```
        case '2':
           cout<<"\n\n\tEnter The account No. : "; cin>>num;
           deposit_withdraw(num, 1);
           break;
        case '3':
           cout<<"\n\n\tEnter The account No. : "; cin>>num;
           deposit_withdraw(num, 2);
           break;
        case '4':
           cout<<"\n\n\tEnter The account No. : "; cin>>num;
           display_sp(num);
           break;
        case '5':
           display_all();
           break;
        case '6':
           cout<<"\n\n\tEnter The account No. : "; cin>>num;
           delete_account(num);
           break;
         case '7':
           cout<<"\n\n\tEnter The account No. : "; cin>>num;
           modify_account(num);
           break;
         case '8':
           cout<<"\n\n\tThanks for using bank managemnt system";
           break;
         default :cout<<"\a";
        }
        cin.ignore();
        cin.get();
    }while(ch!='8');
    return 0;
}


//***************************************************************
//       function to write in file
//***************************************************************

void write_account()
{
    account ac;
    ofstream outFile;
    outFile.open("account.dat",ios::binary|ios::app);
    ac.create_account();
    outFile.write(reinterpret_cast<char *> (&ac), sizeof(account));
    outFile.close();
}
```

```
//***************************************************************
//       function to read specific record from file
//***************************************************************

void display_sp(int n)
{
   account ac;
   bool flag=false;
   ifstream inFile;
   inFile.open("account.dat",ios::binary);
   if(!inFile)
   {
      cout<<"File could not be open !! Press any Key...";
      return;
   }
   cout<<"\nBALANCE DETAILS\n";
      while(inFile.read(reinterpret_cast<char *> (&ac), sizeof(account)))
   {
      if(ac.retacno()==n)
      {
         ac.show_account();
         flag=true;
      }
   }
   inFile.close();
   if(flag==false)
      cout<<"\n\nAccount number does not exist";
}


//***************************************************************
//       function to modify record of file
//***************************************************************

void modify_account(int n)
{
   bool found=false;
   account ac;
   fstream File;
   File.open("account.dat",ios::binary|ios::in|ios::out);
   if(!File)
   {
      cout<<"File could not be open !! Press any Key...";
      return;
   }
   while(!File.eof() && found==false)
   {
```

```
        File.read(reinterpret_cast<char *> (&ac), sizeof(account));
        if(ac.retacno()==n)
        {
            ac.show_account();
            cout<<"\n\nEnter The New Details of account"<<endl;
            ac.modify();
            int pos=(-1)*static_cast<int>(sizeof(account));
            File.seekp(pos,ios::cur);
            File.write(reinterpret_cast<char *> (&ac), sizeof(account));
            cout<<"\n\n\t Record Updated";
            found=true;
          }
    }
    File.close();
    if(found==false)
        cout<<"\n\n Record Not Found ";
}

//***************************************************************
//       function to delete record of file
//***************************************************************


void delete_account(int n)
{
    account ac;
    ifstream inFile;
    ofstream outFile;
    inFile.open("account.dat",ios::binary);
    if(!inFile)
    {
        cout<<"File could not be open !! Press any Key...";
        return;
    }
    outFile.open("Temp.dat",ios::binary);
    inFile.seekg(0,ios::beg);
    while(inFile.read(reinterpret_cast<char *> (&ac), sizeof(account)))
    {
        if(ac.retacno()!=n)
        {
            outFile.write(reinterpret_cast<char *> (&ac), sizeof(account));
        }
    }
    inFile.close();
    outFile.close();
    remove("account.dat");
    rename("Temp.dat","account.dat");
    cout<<"\n\n\tRecord Deleted ..";
```

```
}

//***************************************************************
//       function to display all accounts deposit list
//***************************************************************

void display_all()
{
   account ac;
   ifstream inFile;
   inFile.open("account.dat",ios::binary);
   if(!inFile)
   {
      cout<<"File could not be open !! Press any Key...";
      return;
   }
   cout<<"\n\n\t\tACCOUNT HOLDER LIST\n\n";
   cout<<"====================================================\n";
   cout<<"A/c no.      NAME           Type  Balance\n";
   cout<<"====================================================\n";
   while(inFile.read(reinterpret_cast<char *> (&ac), sizeof(account)))
   {
      ac.report();
   }
   inFile.close();
}

//***************************************************************
//       function to deposit and withdraw amounts
//***************************************************************

void deposit_withdraw(int n, int option)
{
   int amt;
   bool found=false;
   account ac;
   fstream File;
   File.open("account.dat", ios::binary|ios::in|ios::out);
   if(!File)
   {
      cout<<"File could not be open !! Press any Key...";
      return;
   }
   while(!File.eof() && found==false)
   {
      File.read(reinterpret_cast<char *> (&ac), sizeof(account));
      if(ac.retacno()==n)
      {
```

```
            ac.show_account();
            if(option==1)
            {
               cout<<"\n\n\tTO DEPOSITE AMOUNT ";
               cout<<"\n\nEnter The amount to be deposited";
               cin>>amt;
               ac.dep(amt);
            }
            if(option==2)
            {
               cout<<"\n\n\tTO WITHDRAW AMOUNT ";
               cout<<"\n\nEnter The amount to be withdraw";
               cin>>amt;
               int bal=ac.retdeposit()-amt;
               if((bal<500 && ac.rettype()=='S') || (bal<1000 && ac.rettype()=='C'))
                  cout<<"Insufficience balance";
               else
                  ac.draw(amt);
             }
            int pos=(-1)*static_cast<int>(sizeof(ac));
            File.seekp(pos,ios::cur);
            File.write(reinterpret_cast<char *> (&ac), sizeof(account));
            cout<<"\n\n\t Record Updated";
            found=true;
           }
         }
      File.close();
      if(found==false)
         cout<<"\n\n Record Not Found ";
}


//***************************************************************
//       INTRODUCTION FUNCTION
//***************************************************************

void intro()
{
   cout<<"\n\n\n\t  BANK";
   cout<<"\n\n\tMANAGEMENT";
   cout<<"\n\n\t  SYSTEM";
   cin.get();
}

//***************************************************************
//              END OF PROJECT
//***************************************************************
```