```
#include<iostream.h>
#include<conio.h>
#include<fstream.h>
#include<string.h>
#include<ctype.h>
#include<stdio.h>
#include<process.h>
class Blood_Bank  //class definition
{
  private:  char name[25];  // variable declaration with access specifier
    int age;
    char blood_group[3];
    char address[30];
    char email_id[20];
    long long mobile_number;
    char gender[6];
    // class methods declaration with access specifier
   public:  void get_details()  // this function will take the input from the user on call
   {
       cout<<"\n Enter the name of the donor: \t";
       gets(name);
       cout<<"\n Enter the age of the Donor: \t";
       cin>>age;
       cout<<"\nEnter the address of the donor: \t";
       gets(address);
       cout<<"\n Enter the email id of the donor: \t";
       gets(email_id);
       cout<<"\nEnter the mobile number: \t";
       cin>>mobile_number;
```

```
    cout<<"\n Enter the blood group: \t";
    gets(blood_group);
    cout<<"\n Enter the gender of the donor: \t";
    gets(gender);
  }
        void display_details() // this function will show all the details on call
          {
                cout<<"\n Name:\t"<<name;

    cout<<"\n Age: \t"<<age;

    cout<<"\n Address: \t"<<address;

    cout<<"\n Email-id: \t"<<email_id;

    cout<<"\n Mobile Number: \t"<<mobile_number;

    cout<<"\n Blood Group:"<<blood_group;

    cout<<"\n  Gender: \t "<<gender;

          };
          char* return_bg()
          {
                return blood_group;
          }

};
```

```
fstream fp; // declaring an object of file type
Blood_Bank bb;// declaring the object of class Blood_Bank type;

void insertdata_file() // this function is responsible for inserting the donor data into the data(.dat) file
{
fp.open("donor_details.dat",ios::out|ios::app);//  .dat file stores data in binary format
bb.get_details();
fp.write((char*)&bb,sizeof(Blood_Bank));
fp.close();
cout<<"\n The data of the donor has been inserted";
getch();
}

void retrievedata_file() //this function extracts all the information from the file
{
   fp.open("donor_details.dat",ios::out);
   fp.read((char*)&bb,sizeof(Blood_Bank));
          {
             bb.display_details();
          }
   fp.close();
   getch();
}

void display_specific(char blood_gr[3]) // this function will extract the data of the donors based on the
blood group
              {

                    fp.open("donor_details.dat",ios::out);
```

```
                fp.read((char*)&bb,sizeof(Blood_Bank));
                {
                   if(bb.return_bg()==blood_gr) // this condition checks the blood group in the file data
                   {
                           bb.display_details();
                   }
                }
                getch();

        }

int main() // main running function
{
  int ch;
   char bg[3]; //parameter variable for blood group
   int i;
   clrscr();
  do{
            cout<<"\n Choos your option";     //user driven menu application
            cout<<"\n1. Insert Donor Data";    //provides a variety of choices
            cout<<"\n2. View All Donors Data";   //user friendly
            cout<<"\n3. View Donor Data by Blood Group";
            cout<<"\n4. Exit";
            cin>>ch;
            switch(ch)   // switch case to select options
            {

            case 1: insertdata_file();
                    break;    // call for inserting data
```

```
            case 2: retrievedata_file();   // call for retrieving the data
                    break;

            case 3: cout<<"\n Enter the blood group";  // call for blood group based retrieval of data
                    gets(bg);
                    display_specific(bg);
                    break;

            case 4: exit(0); // exit from the main application window
            }
  }while(ch>=1 && ch<=4);  // use of while loop for implementing the interface itereatively

  return 0;


}
```