

**LAB MANUAL**

**(Object Oriented Programming)**

**COMP21121**

**Submitted By**

***Name: Muhammad Shoaib Kalim***

***Roll No#: BSF2100926***

***Name: Muhammad Huzaifa***

***Roll No #: BSF2100867***

***Name: Fezan Muhammad Ali***

***Roll No #: BSF2101030***

***Name: Umer Shehzad***

***Roll No #: BSF2101356***

***Name: Muhammad Waqas***

***Roll No #: BSF2100967***

**Submitted To**

***Teacher: MISS. UZMA***

**BLOOD MANAGEMENT SYSTEM**

**Classes:**

1. **main.cpp**
2. **Donar.h**
3. **contact.h**
4. **Blood\_Group.h**
5. **Department.h**
6. **Roll.h**
7. **Data\_base.h**
8. **Name.h**

* **Main.cpp**

#include <iostream>

#include<windows.h>

#include "Data\_base.h"

#include<cstring>

using namespace std;

int main()

{

Data\_base db;

while(1)

{

int n;

cout<<"\n\t\t===========================================";

cout<<"\n\t\t| Simple Blood Bank Management System |"<<endl;

cout<<"\t\t===========================================";

cout<<"\n\t \t \t ::Enter Your Choice::"<<endl;

cout<<"\n\t\t\tTo Add New Data \t(1)\n\t\t\tTo View List Of Donor (2)\n\t\t\tTo Search Donor \t(3)\n\t\t\tTo Exit \t\t(4)"<<endl;

cout<<"\t\t\t: ";

cin>>n;

switch (n)

{

case 1:

{

system("cls");

db.Data("Add New");

}

break;

case 2:

{

system("cls");

db.Data("View");

}

break;

case 3:

{

system("cls");

db.Data("Search");

}

break;

case 4:

{

return 0;

}

break;

default:

{

system("cls");

cout<<"\a\aPlease Enter your choice Correctly:\a\a"<<endl;

}

break;

}

}

return 0;

}

* **Donar.h**

#ifndef Donor\_H\_INCLUDED

#define Donor\_H\_INCLUDED

#include<string>

#include<iostream>

#include "Roll.h"

#include "Name.h"

#include "Department.h"

#include "Blood\_Group.h"

#include "Contact.h"

using namespace std;

class Donor:public Roll,public Name,public Department,public Blood\_group,public Contact

{

protected:

int no\_of\_blood\_donate;

string last\_date\_of\_blood\_donation;

public:

void set\_no\_of\_blood\_donate(int);

int get\_no\_of\_blood\_donate();

void set\_last\_date\_of\_blood\_donation(string);

string get\_last\_date\_of\_blood\_donation();

};

void Donor::set\_no\_of\_blood\_donate(int n)

{

no\_of\_blood\_donate=n;

}

void Donor::set\_last\_date\_of\_blood\_donation(string d)

{

last\_date\_of\_blood\_donation=d;

}

int Donor::get\_no\_of\_blood\_donate()

{

return no\_of\_blood\_donate;

}

string Donor::get\_last\_date\_of\_blood\_donation()

{

return last\_date\_of\_blood\_donation;

}

#endif // Donor\_H\_INCLUDED

* **contact.h**

#ifndef CONTACT\_H\_INCLUDED

#define CONTACT\_H\_INCLUDED

#include<string>

#include<iostream>

using namespace std;

class Contact

{

protected:

string phone\_no;

string email;

public:

void set\_phone\_no(string);

void set\_email(string);

string get\_phone\_no();

string get\_email();

};

void Contact::set\_phone\_no(string p)

{

phone\_no=p;

}

void Contact::set\_email(string e)

{

email=e;

}

string Contact::get\_phone\_no()

{

return phone\_no;

}

string Contact::get\_email()

{

return email;

}

#endif // CONTACT\_H\_INCLUDED

* **Blood\_Group.h**

#ifndef BLOOD\_GROUP\_H\_INCLUDED

#define BLOOD\_GROUP\_H\_INCLUDED

#include<string>

#include<iostream>

using namespace std;

class Blood\_group

{

protected:

string Blood\_group;

public:

string get\_Blood\_group();

void set\_Blood\_group( string);

};

void Blood\_group::set\_Blood\_group(string n)

{

Blood\_group=n;

}

string Blood\_group::get\_Blood\_group()

{

return Blood\_group;

}

#endif // BLOOD\_GROUP\_H\_INCLUDED

* **Department.h**

#ifndef DEPARTMENT\_H\_INCLUDED

#define DEPARTMENT\_H\_INCLUDED

#include<string>

#include<iostream>

using namespace std;

class Department

{

protected:

string department;

public:

string get\_department();

void set\_department( string);

};

void Department::set\_department(string d)

{

department=d;

}

string Department::get\_department()

{

return department;

}

#endif // DEPARTMENT\_H\_INCLUDED

* **Roll.h**

#ifndef ROLL\_H\_INCLUDED

#define ROLL\_H\_INCLUDED

#include<string>

#include<iostream>

using namespace std;

class Roll

{

protected:

long int roll;

public:

long int get\_roll();

void set\_roll(long int);

};

void Roll::set\_roll(long int r)

{

roll=r;

}

long int Roll::get\_roll()

{

return roll;

}

#endif // ROLL\_H\_INCLUDED

* **Data\_base.h**

#ifndef DATA\_BASE\_H\_INCLUDED

#define DATA\_BASE\_H\_INCLUDED

#include<string>

#include "Donar.h"

#include<vector>

#include<windows.h>

#include<cstring>

#include<cstdio>

#include<iostream>

using namespace std;

class Data\_base

{

protected:

Donor don[1000];

public:

Data\_base() {}

void Data(string s)

{

static int i=0;

if(s=="Add New")

{

string n;

long int r;

int t;

cout<<"\n\t\t\t Enter Name:"<<endl;

cout<<" \t\t\t ";

getchar();

getline(cin>>n,n);

don[i].set\_name(n);

cout<<"\n\t\t\t Enter Roll ID:"<<endl;

cout<<" \t\t\t ";

cin>>r;

don[i].set\_roll(r);

cout<<"\n\t\t\t Enter Department:"<<endl;

cout<<" \t\t\t ";

cin>>n;

don[i].set\_department(n);

cout<<"\n\t\t\t Enter Blood Group:"<<endl;

cout<<" \t\t\t ";

cin>>n;

don[i].set\_Blood\_group(n);

cout<<"\n\t\t\t No.of Blood Donate:"<<endl;

cout<<" \t\t\t ";

cin>>t;

don[i].set\_no\_of\_blood\_donate(t);

cout<<"\n\t\t\t Last Date of Blood Donation:"<<endl;

cout<<" \t\t\t ";

cin>>n;

don[i].set\_last\_date\_of\_blood\_donation(n);

cout<<"\n\t\t\t Enter Phone No.:"<<endl;

cout<<" \t\t\t ";

cin>>n;

don[i].set\_phone\_no(n);

cout<<"\n\t\t\t Enter E-mail:"<<endl;

cout<<" \t\t\t ";

cin>>n;

don[i].set\_email(n);

//system("cls");

cout<<"\n\t Your data has been successfully added to the our database."<<endl;

system("PAUSE");

system("CLS");

i++;

}

if(s=="View")

{

int j;

system("cls");

for( j=0; j<i; j++)

{ //fncall1353

cout<<"\n\t\t\t\tDonar No: "<<j+1<<endl;

cout<<"\t\t\tName: "<<don[j].get\_name()<<endl;

cout<<"\t\t\tRoll: "<<don[j].get\_roll()<<endl;

cout<<"\t\t\tDepartment.: "<<don[j].get\_department()<<endl;

cout<<"\t\t\tBlood Group: "<<don[j].get\_Blood\_group()<<endl;

cout<<"\t\t\tNo. of Blood Donation: "<<don[j].get\_no\_of\_blood\_donate()<<endl;

cout<<"\t\t\tLast Date of Blood Donation: "<<don[j].get\_last\_date\_of\_blood\_donation()<<endl;

cout<<"\t\t\t:-:Contact Info:-:"<<endl;

cout<<"\t\t\tPhone No.: "<<don[j].get\_phone\_no()<<endl;

cout<<"\t\t\tE-mail: "<<don[j].get\_email()<<endl;

cout<<"\n\n";

system("PAUSE");

system("CLS");

}

if(j<1)

//brought to you by code-projects.org

cout<<"\aPlease Insert some data first.\n\n";

}

if(s=="Search")

{

string s;

system("cls");

cout<<"\n\t\t\t\tEnter Name/Blood Group/Department : "<<endl;

cout<<"\t\t\t\t";

cin>>s;

for(int j=0; j<i; j++)

{

if(s==don[j].get\_Blood\_group()||s==don[j].get\_name()||s==don[j].get\_department())

{

cout<<"\n\t\t\t\tDonar No: "<<j+1<<endl;

cout<<"\t\t\tName: "<<don[j].get\_name()<<endl;

cout<<"\t\t\tRoll: "<<don[j].get\_roll()<<endl;

cout<<"\t\t\tDepartment.: "<<don[j].get\_department()<<endl;

cout<<"\t\t\tBlood Group: "<<don[j].get\_Blood\_group()<<endl;

cout<<"\t\t\tNo. of Blood Donation: "<<don[j].get\_no\_of\_blood\_donate()<<endl;

cout<<"\t\t\tLast Date of Blood Donation: "<<don[j].get\_last\_date\_of\_blood\_donation()<<endl;

cout<<"\t\t\t:-:Contact Info:-:"<<endl;

cout<<"\t\t\tPhone No.: "<<don[j].get\_phone\_no()<<endl;

cout<<"\t\t\tE-mail: "<<don[j].get\_email()<<endl;

cout<<"\n\n";

system("PAUSE");

system("CLS");

}

}

}

}

};

#endif // DATA\_BASE\_H\_INCLUDED

* **Name.h**

#ifndef NAME\_H\_INCLUDED

#define NAME\_H\_INCLUDED

#include<string>

#include<iostream>

using namespace std;

class Name

{

protected:

string name;

public:

string get\_name();

void set\_name( string);

};

void Name::set\_name(string n)

{

name=n;

}

string Name::get\_name()

{

return name;

}

#endif // NAME\_H\_INCLUDED







