

C++ Project

BLOOD BANK STORAGE

Submitted by

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Under Guidance of

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CONTEXT INDEX

S. No.	Topic	Page No.
1.	Abstract, Concepts Used	3
2.	Dependency Graph	4
3.	Description of Project (File wise)	5
4.	Other Essential Information	8

ABSTRACT

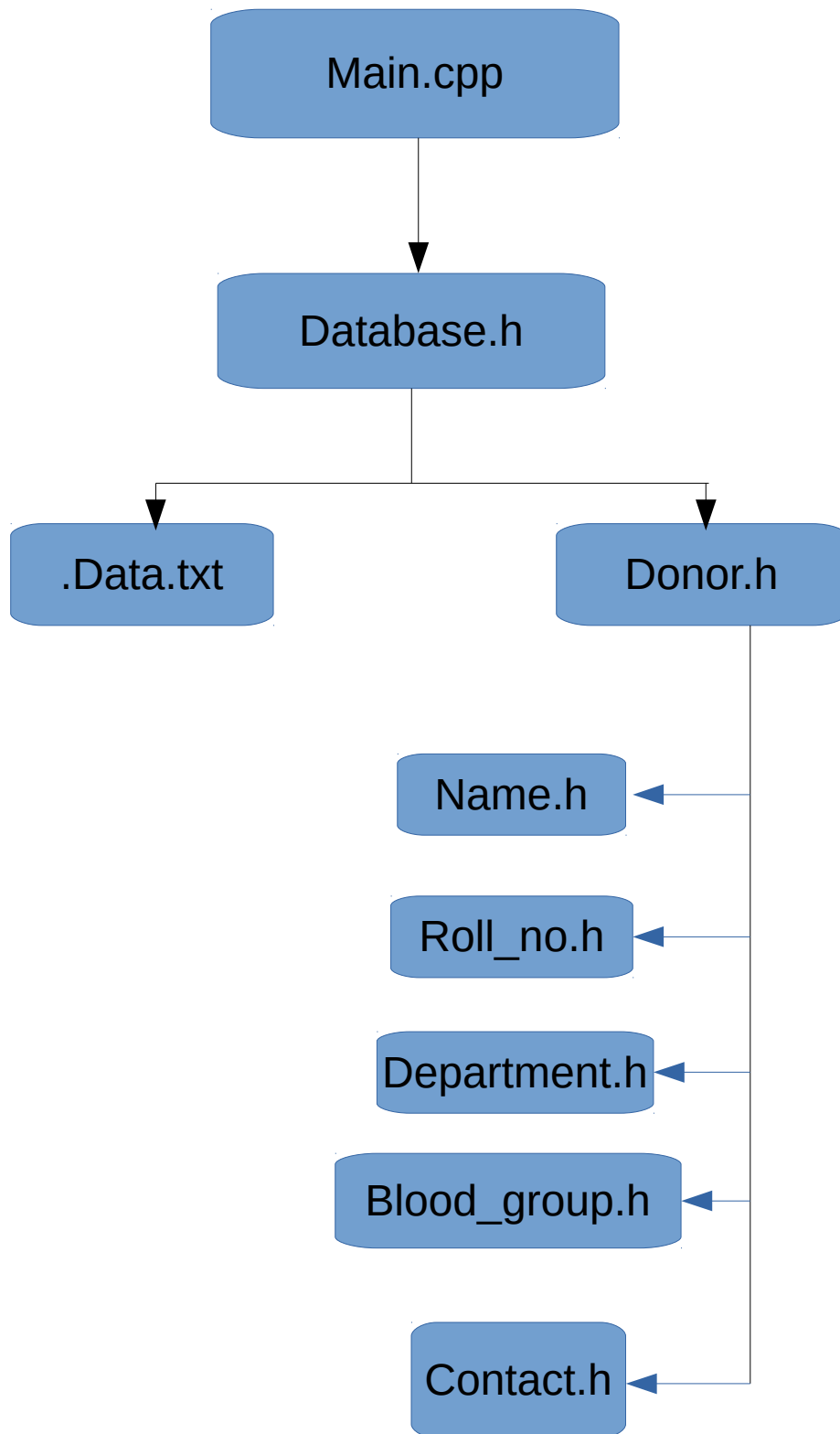
In recent times, we have faced a lot of issues related to blood bank storage, We can store the details of the donors which can be very useful when any emergency case occurs. We can search through our database and obtain the suitable donor.

Project is developed on c++ and it is based on terminal. It stores the details of donors and provide a mechanism to view all users and search through them using some key (for searching).

CONCEPTS USED

- CLASSES
- ACCESS MODIFIERS
- DATA ENCAPSULATION
- FUNCTIONS
- INHERITANCE
- PREPROCESSORS
- OPERATOR OVERLOADING
- FILE HANDLING
- EXCEPTION HANDLING
- USAGE OF UNICODE CHARACTERS
- SELF DEFINED HEADER FILES

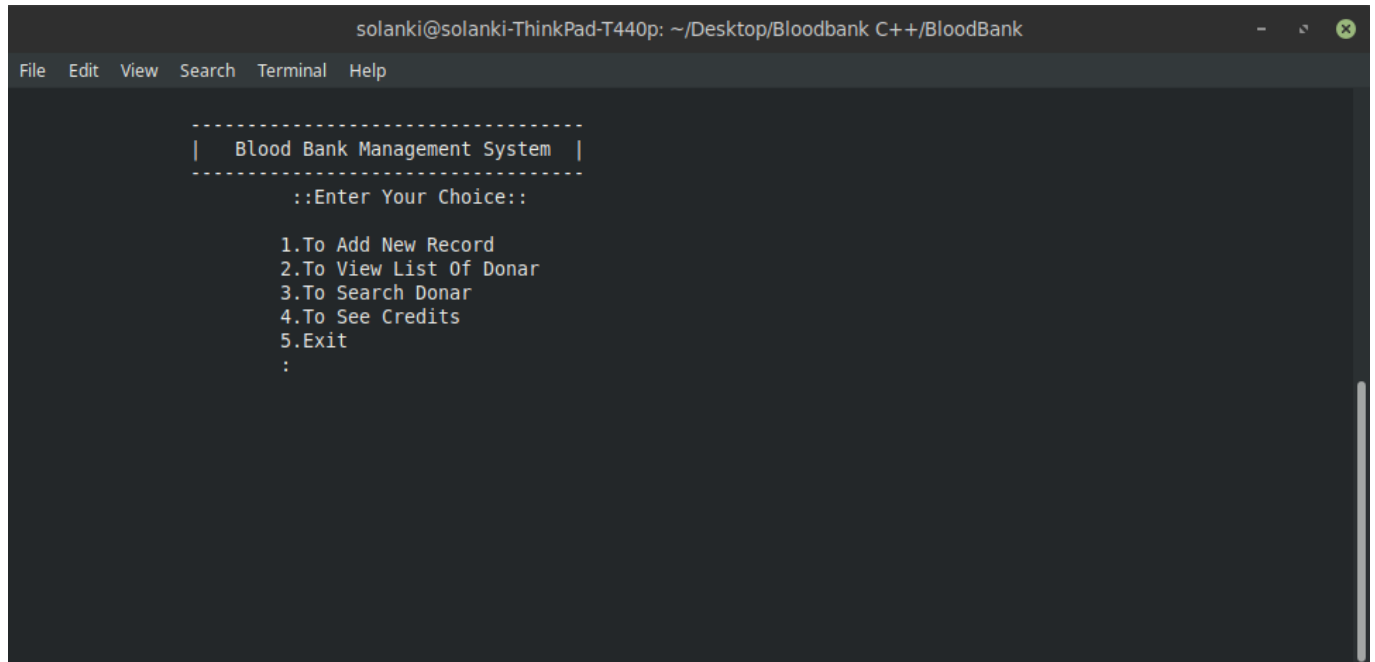
DEPENDENCY GRAPH



DESCRIPTION OF PROJECT

Main.cpp

It is the first page, or from where program starts. It displays a menu to select item you want to run.



```
solanki@solanki-ThinkPad-T440p: ~/Desktop/Bloodbank C++/BloodBank
File Edit View Search Terminal Help

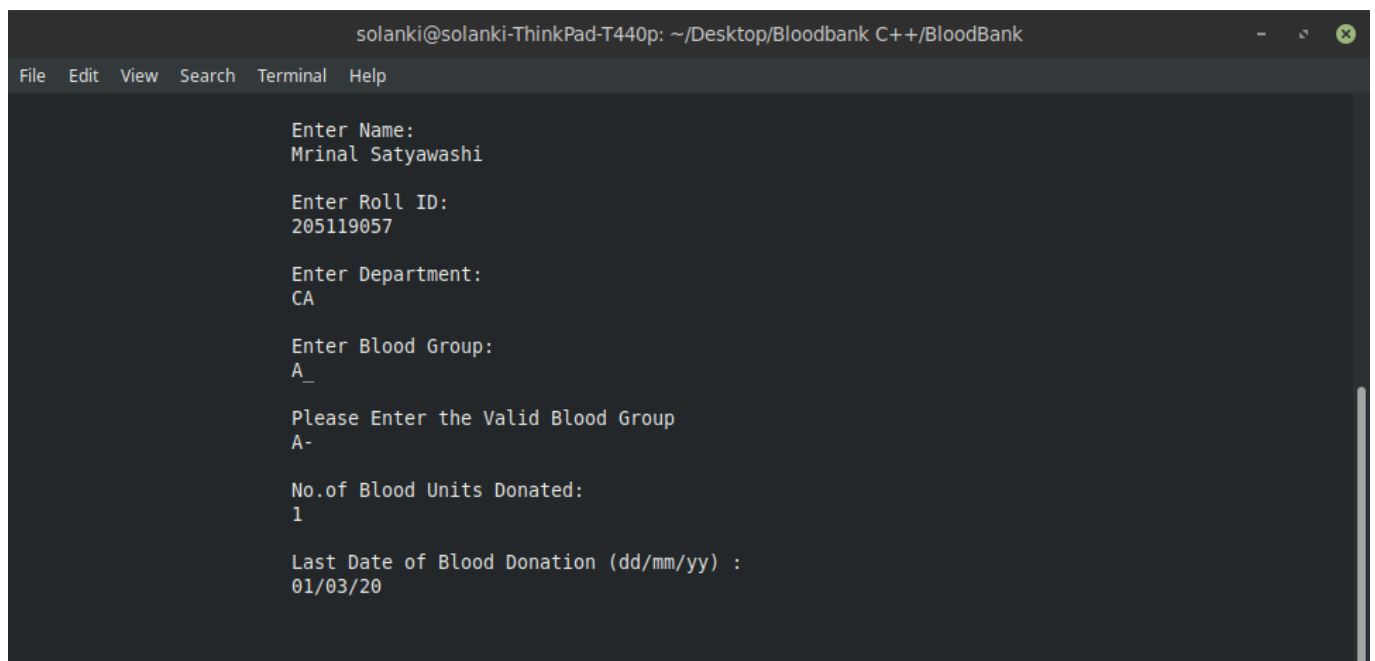
-----
|  Blood Bank Management System  |
-----
::Enter Your Choice::

1.To Add New Record
2.To View List Of Donar
3.To Search Donar
4.To See Credits
5.Exit
:
```

Database.h

It is the core of the project which starts the processes selected in the menu in main.cpp

- If '1' is chosen then it will ask for the details for new Donor and after verifying that validity of the input details, it add new record to the .Data.txt file (**Function Data ("Add NEW")**).



```
solanki@solanki-ThinkPad-T440p: ~/Desktop/Bloodbank C++/BloodBank
File Edit View Search Terminal Help

Enter Name:
Mrinal Satyawashi

Enter Roll ID:
205119057

Enter Department:
CA

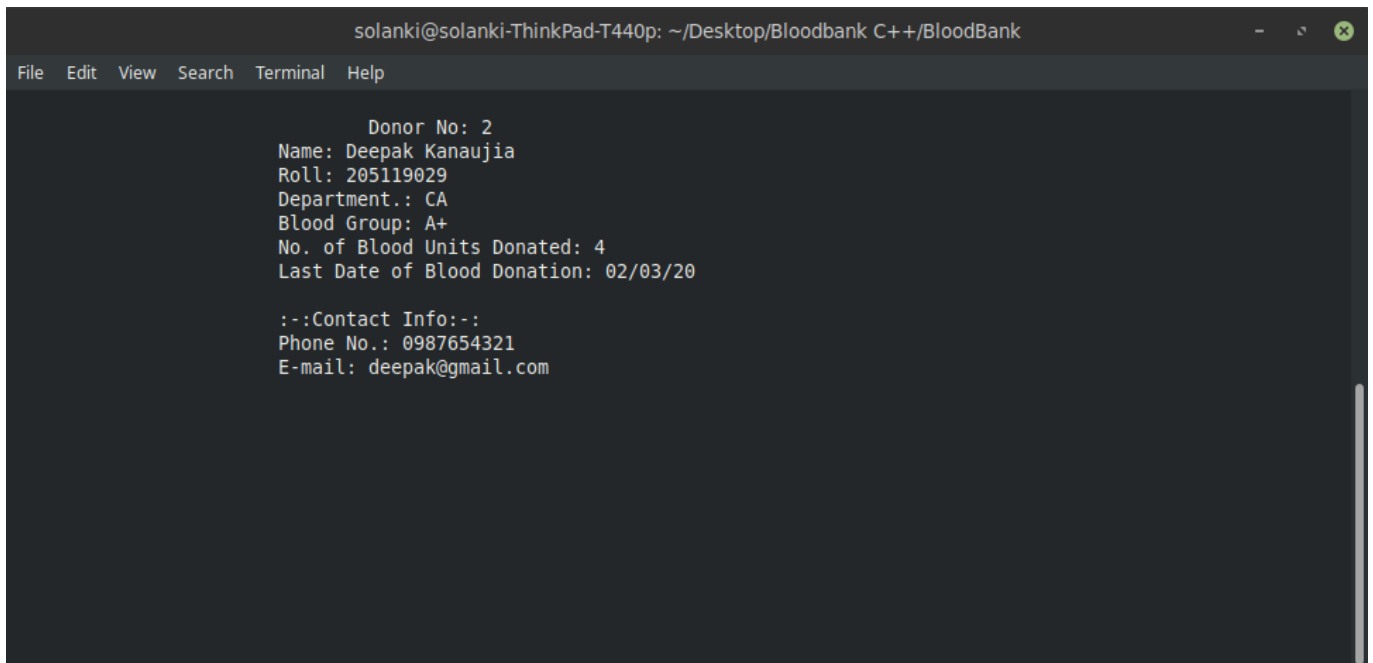
Enter Blood Group:
A_

Please Enter the Valid Blood Group
A-

No.of Blood Units Donated:
1

Last Date of Blood Donation (dd/mm/yy) :
01/03/20
```

- If '2' is chosen then it will displays all user's information (**Function Data("view")**).

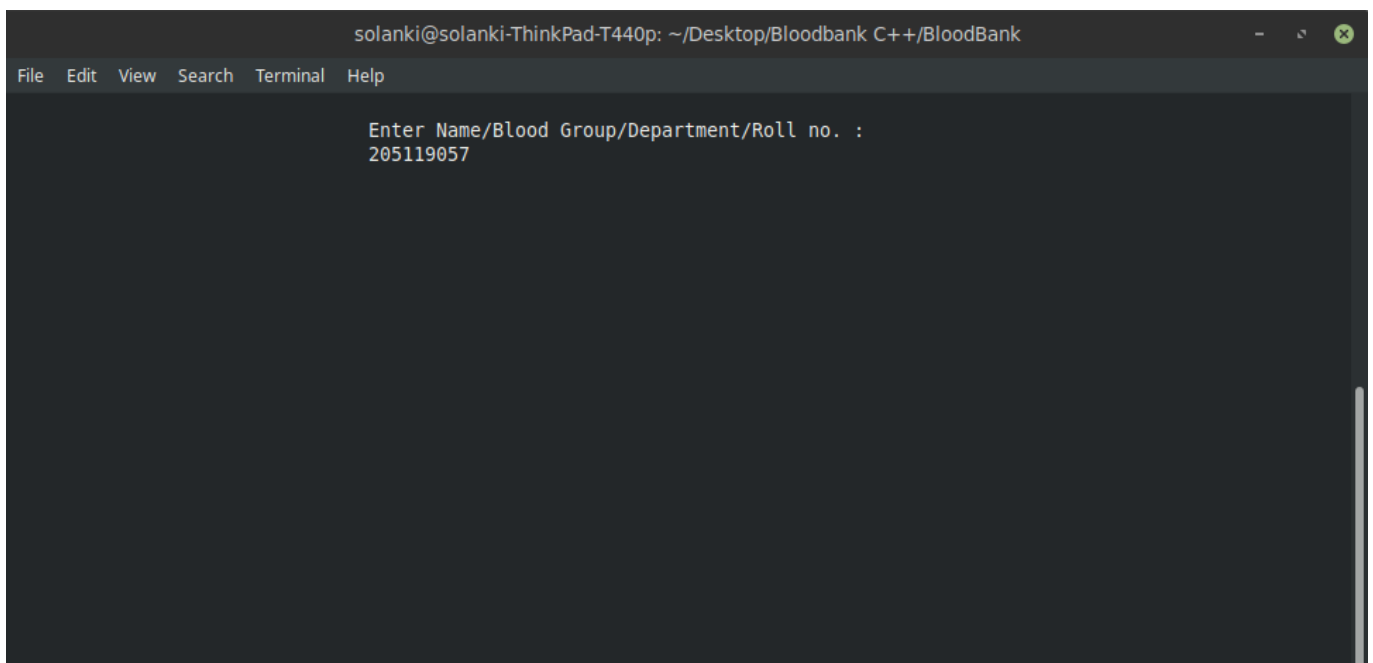


```
solanki@solanki-ThinkPad-T440p: ~/Desktop/Bloodbank C++/BloodBank
File Edit View Search Terminal Help

      Donor No: 2
Name: Deepak Kanaujia
Roll: 205119029
Department.: CA
Blood Group: A+
No. of Blood Units Donated: 4
Last Date of Blood Donation: 02/03/20

:-:Contact Info:-:
Phone No.: 0987654321
E-mail: deepak@gmail.com
```

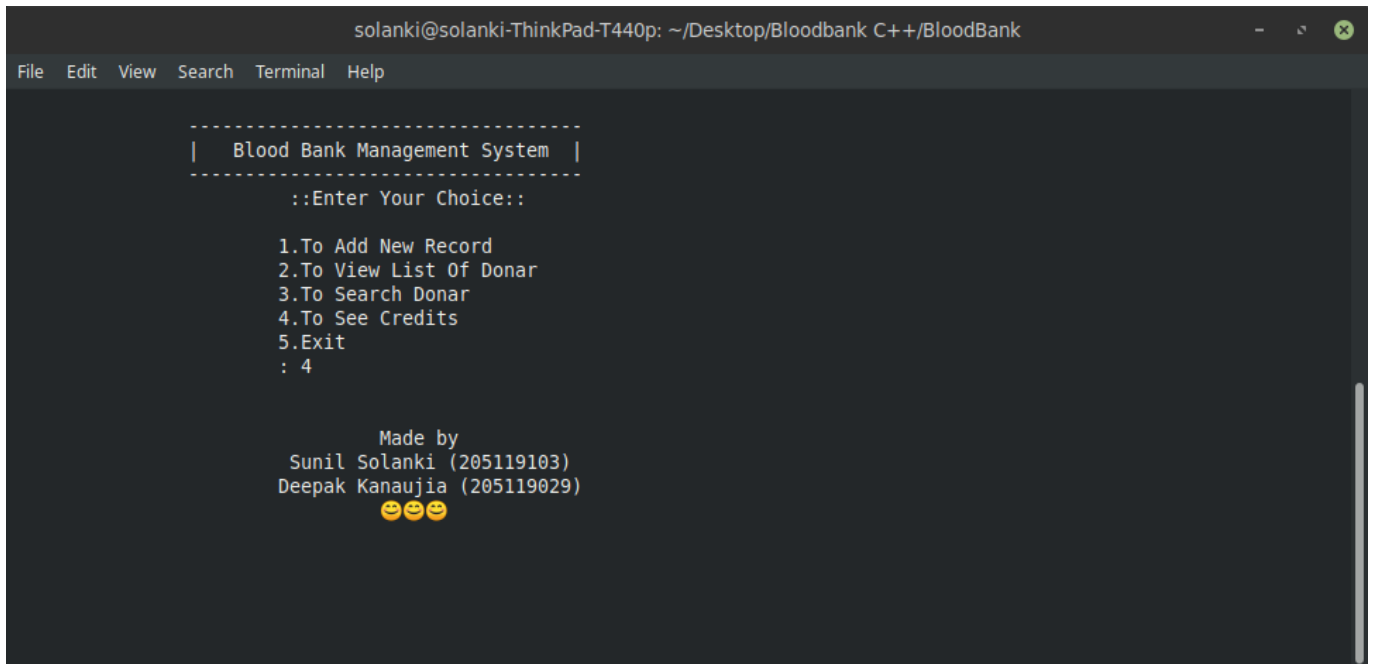
- If '3' is chosen then it will ask for a key to search the Donor details (**Function Data("Search")**).



```
solanki@solanki-ThinkPad-T440p: ~/Desktop/Bloodbank C++/BloodBank
File Edit View Search Terminal Help

Enter Name/Blood Group/Department/Roll no. :
205119057
```

- If '4' is chosen then it will display the Name of the Makers of the Program (**Hardcoded in main.cpp**).



```
solanki@solanki-ThinkPad-T440p: ~/Desktop/Bloodbank C++/BloodBank
File Edit View Search Terminal Help

-----
|  Blood Bank Management System  |
-----
::Enter Your Choice::

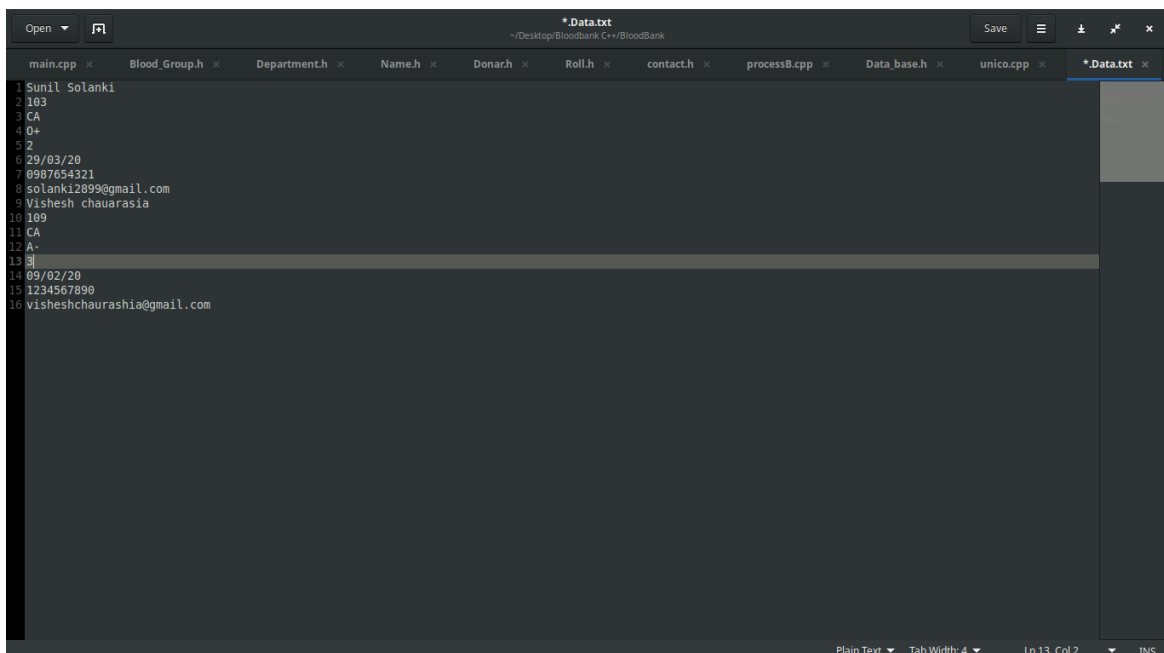
1.To Add New Record
2.To View List Of Donar
3.To Search Donar
4.To See Credits
5.Exit
: 4

      Made by
Sunil Solanki (205119103)
Deepak Kanaujia (205119029)
      😊😊😊
```

- If you press '5', it will exit from the program.

.Data.txt

- It is a hidden file.
- It stores the information of Donors in text format.
- The file is truncated in main.cpp in the beginning of the program to store the new information.



```
*.Data.txt
~/Desktop/Bloodbank C++/BloodBank

main.cpp x Blood_Group.h x Department.h x Name.h x Donar.h x Roll.h x contact.h x processB.cpp x Data_base.h x unico.cpp x *.Data.txt x
1 Sunil Solanki
2 103
3 CA
4 O+
5 2
6 29/03/20
7 0987654321
8 solanki2099@gmail.com
9 Vishesh chaurasia
10 109
11 CA
12 A-
13 3
14 09/02/20
15 1234567890
16 visheshchaurasia@gmail.com
```

Donor.h

- It **inherits** Name.h, Roll.h, Department.h, Blood_group.h, contact.h.
- It has 2 data members -
 - No_Of_units_blood_donated
 - Last_date_of_donation
- It has getter and setter for both the data members.
- It **overloads the operator '<<', '>>' on file streams** to insert and extract the data to and from the .Data.txt file as a object.

Name.h, Roll.h, Department.h, Blood_Group.h, Contact.h

- Every file contains a class named as thier header names.
- Each of them contain a **Data member and getter and setters for the Data member** except the Contact.h,it has two Data members(email, phone_no) and respective getter and setter for them.

Other Essential Information

- It uses some system commands which are operating system dependent.
- It is developed on Linux Machine (may give some error in windows environment).