Visvesvaraya Technological University, Belagavi – 590010

DBMS MINI PROJECT REPORT
ON
Blood Bank Management System

Submitted by

Darshan Laxman Gouda	4SO19CS181
Sukith A S	4SO19CS182

Under the guidance of

Mr Karthik K

(Assistant Professor, CSE Department)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ST JOSEPH ENGINEERING COLLEGE

Vamanjoor, Mangaluru -575028, Karnataka

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CERTIFICATE

This is to certify that the Mini project entitled ***"Blood Bank Management System"*** *is a bonafide work carried out by*

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Sukith A S	*4SO19CS182*

Students of fifth semester B.E. Computer Science & Engineering and submitted as a part of the course DBMS Laboratory with Mini Project (18CSL58), during the academic year 2021-2022.

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Mr Karthik K	**Dr Sridevi Saralaya**
Project Guide	**Head of the Department**

Name of the Examiners	**Signature with Date**
1. ----------	1. ----------
2. ----------	2. ----------

ABSTRACT

Blood Bank - The proposed of Blood Bank App helps the people who need blood by giving them all details of blood group availability or regarding the donors with the same blood group. They don't need to go anywhere to search the blood when they need. They just need to use this software then all the result will appear in just a second. Our life is so busy so we don't have time to spend going here and there, we can use technical way to search the blood by using the Blood Bank software we can find thousands of people who are donating the blood and get the detail the of that person that in which city he belongs to and what is the Blood group of that person .So this is the most useful software ever .

ACKNOWLEDGEMENT

We dedicate this page to acknowledge and thank those responsible for the shaping of the project. Without their guidance and help, the experience while constructing the dissertation

would not have been so smooth and efficient.

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this work successfully.

We are extremely thankful to our **Director, Rev. Fr Wilfred Prakash D'Souza**, our Principal, **Dr Rio D'Souza**, and **Assistant Director, Rev. Fr Alwyn Richard D'Souza** for their support and encouragement.

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CHAPTER 1 – INTRODUCTION

The software system is an online blood bank management system that helps in managing various blood bank operations effectively. The project consists of a central repository containing various blood deposits available along with associated details. These details include blood type, storage area and date of storage. These details help in maintaining and monitoring the blood deposits. The project is an online system that allows to check weather required blood deposits of a particular group are available in the blood bank. Moreover, the system also has added features such as patient name and contacts, blood booking and even need for certain blood group is posted on the website to find available donors for a blood emergency

1.1 - Problem Definition

The numbers of persons who need blood are increasing in large number day by day. Using this system user can search the blood group available in the city and he can also get contact number of the donor who has the same blood group. To help people who, need blood, this Online Blood Bank software can be used effectively for getting the details of available blood groups and user can also get contact number of the blood donors having the same blood group and within the same city.

1.2 - Scope and importance

The population of the world is multiplying with each coming year and so are the diseases and health issues. With an increase in the population there is an increase in the need of blood. The growing population of the world results in a lot of potential blood donors. But despite this not more than 10% of the total world population participates in blood donation. With the growing population and the advancement in medical science the demand for blood has also increased. Due to the lack of

communication between the blood donors and the blood recipients, most of the patients in need of blood do not get blood on time and hence lose their lives. There is a dire need of synchronization between the blood donors and hospitals and the blood banks. This improper management of blood leads to wastage of the available blood inventory. Improper communication and synchronization between the blood banks and hospitals leads to wastage of the blood available. These problems can be dealt with by automating the existing manual blood bank management system. A high-end, efficient, highly available and scalable system must be developed to bridge the gap between the donors and the recipients and to reduce the efforts required to search for blood donors.

CHAPTER 2 – SOFTWARE REQUIREMENT SPECIFICATION

2.1 Functional Requirements

The program consists of the following modules:

Login Module. User or the admin can login tin this page.

User Module: User can view nearby hospital and camps details and even place blood request

Admin Module: Admin can add hospitals, blood donation camps details, view and manage user request for blood.

2.2 Software Requirements

Operating System: Windows OS

Language: Python (PyQt5)

Database: SQLite

Tools: VisualStudioCode, QT Designer

2.3 Hardware Requirements

Installed Memory (RAM): 2GB or Higher

Processor: 1GHz or Higher

Hard disk space: 10 GB Availability

Display: Standard output display

CHAPTER 3 – SYSTEM DESIGN

3.1 ER Model

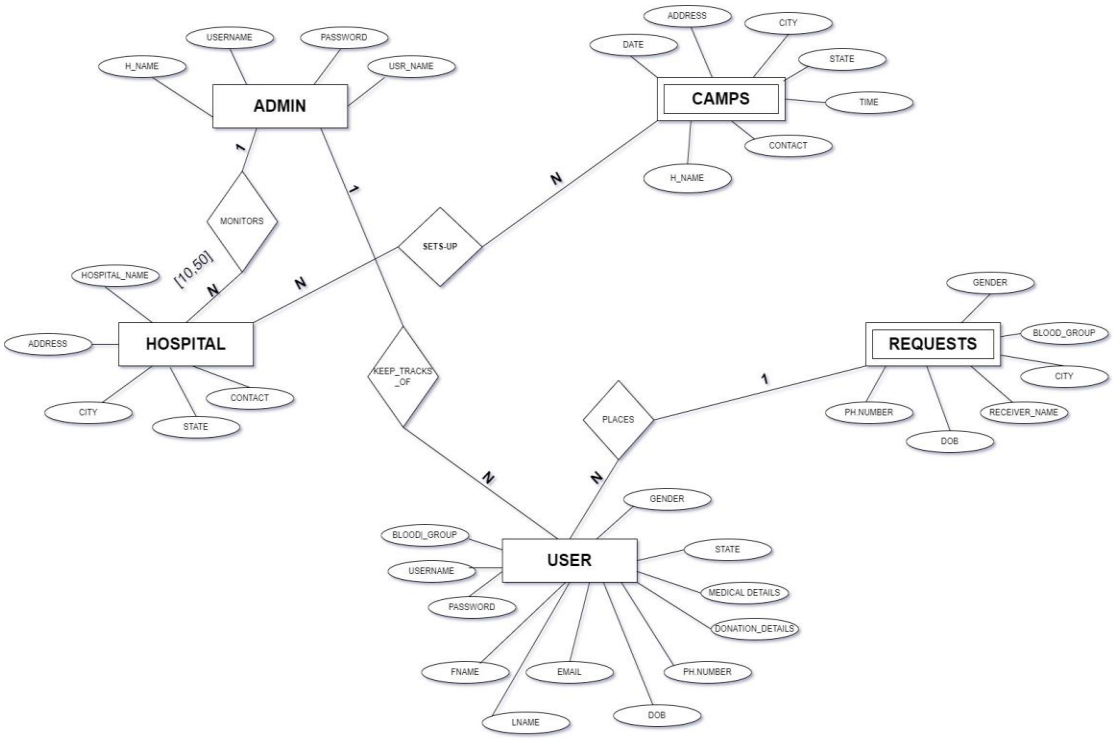


Figure 3.1.1 : ER Diagram for Blood Bank Management System

3.2 Schema Diagram

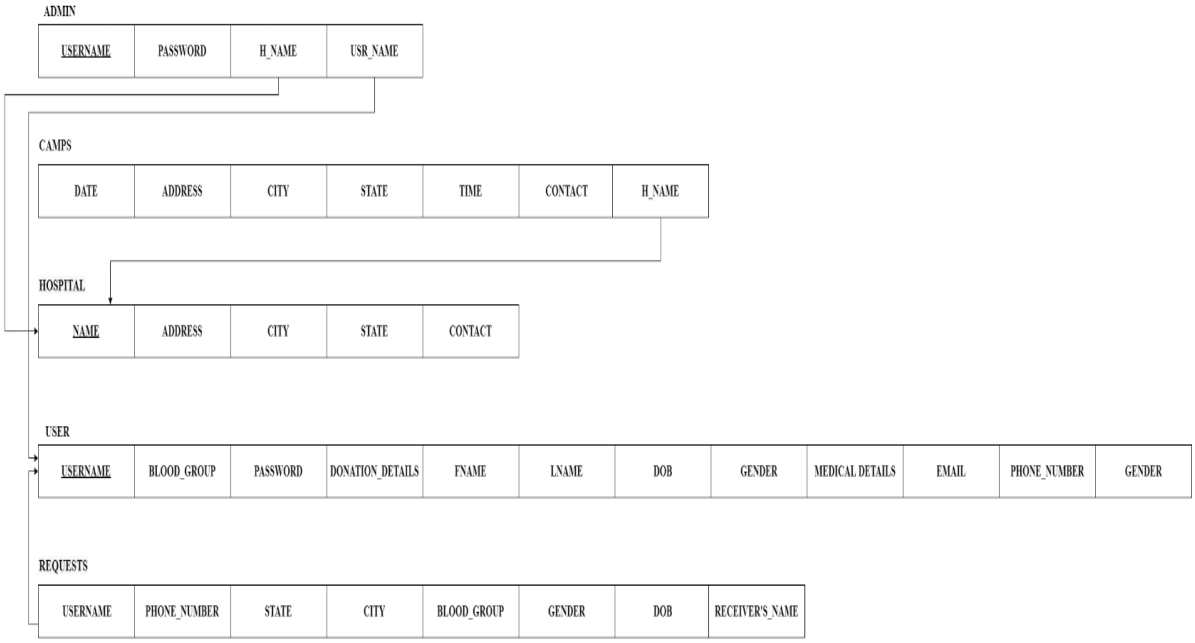


Figure 3.2.1 : Schema Diagram for Blood Bank System Management

3.3 Tables Description

ADMIN :

```
PRAGMA table_info(admin);
```

Input To Search Data | Cost: 63ms | 1 | Total 4

	cid	name	type	notnull	dflt_value	pk
	Filter	Filter	Filter	Filter	Filter	Filter
1	0	Username	TEXT	0	NULL	1
2	1	Password	text	0	NULL	0
3	2	H_NAME	VARCHAR(20)	0	NULL	0
4	3	USR_NAME	VARCHAR(20)	0	NULL	0

Table 3.3.1 : ADMIN table to store admin login details

HOSPITAL :

```
PRAGMA table_info(hospital);
```

Input To Search Data | Cost: 69ms | 1 | Total 5

	cid	name	type	notnull	dflt_value	pk
	Filter	Filter	Filter	Filter	Filter	Filter
1	0	Hospital Name	TEXT	0	NULL	1
2	1	Address	text	0	NULL	0
3	2	City	text	0	NULL	0
4	3	State	text	0	NULL	0
5	4	Contact Details	text	0	NULL	0

Table 3.3.2 : HOSPITAL table consists of details on hospital name and location

CAMPS :

```
PRAGMA table_info(camps);
```

Input To Search Data | Cost: 68ms | 1 | Total 7

	cid	name	type	notnull	dflt_value	pk
	Filter	Filter	Filter	Filter	Filter	Filter
1	0	Date of camp	date	0	NULL	0
2	1	Address	text	0	NULL	0
3	2	City	text	0	NULL	0
4	3	State	text	0	NULL	0
5	4	Time	text	0	NULL	0
6	5	Contact Details	text	0	NULL	0
7	6	H_NAME	VARCHAR(20)	0	NULL	0

Table 3.3.3 : CAMPS table stores details about upcoming blood donation camps, its locations and other information related to it

REQUESTS

```
PRAGMA table_info(requests);
```

Input To Search Data | Cost: 71ms | 1 | Total 7

	cid	name	type	notnull	dflt_value	pk
	Filter	Filter	Filter	Filter	Filter	Filter
1	0	Receiver Name	text	0	NULL	0
2	1	DOB	date	0	NULL	0
3	2	Gender	text	0	NULL	0
4	3	Blood Group	text	0	NULL	0
5	4	City	text	0	NULL	0
6	5	State	text	0	NULL	0
7	6	Mobile	numeric	0	NULL	0

Table 3.3.4 : REQUESTS table stores information about blood requests made by user

USER

```
PRAGMA table_info(user);
```

Input To Search Data | Cost: 62ms | 1 | Total 12

	cid	name	type	notnull	dflt_value	pk
	Filter	Filter	Filter	Filter	Filter	Filter
1	0	First Name	text	0	NULL	0
2	1	Last Name	text	0	NULL	0
3	2	DOB	date	0	NULL	0
4	3	Gender	text	0	NULL	0
5	4	State	text	0	NULL	0
6	5	Blood Group	text	0	NULL	0
7	6	Mobile	numeric	0	NULL	0
8	7	Email ID	text	0	NULL	0
9	8	Donation Details	text	0	NULL	0
10	9	Medical Details	text	0	NULL	0
11	10	Username	text	0	NULL	1
12	11	Password	text	0	NULL	0

Table 3.3.5 : USER table to store user details

CHAPTER 4 – SCREENSHOTS

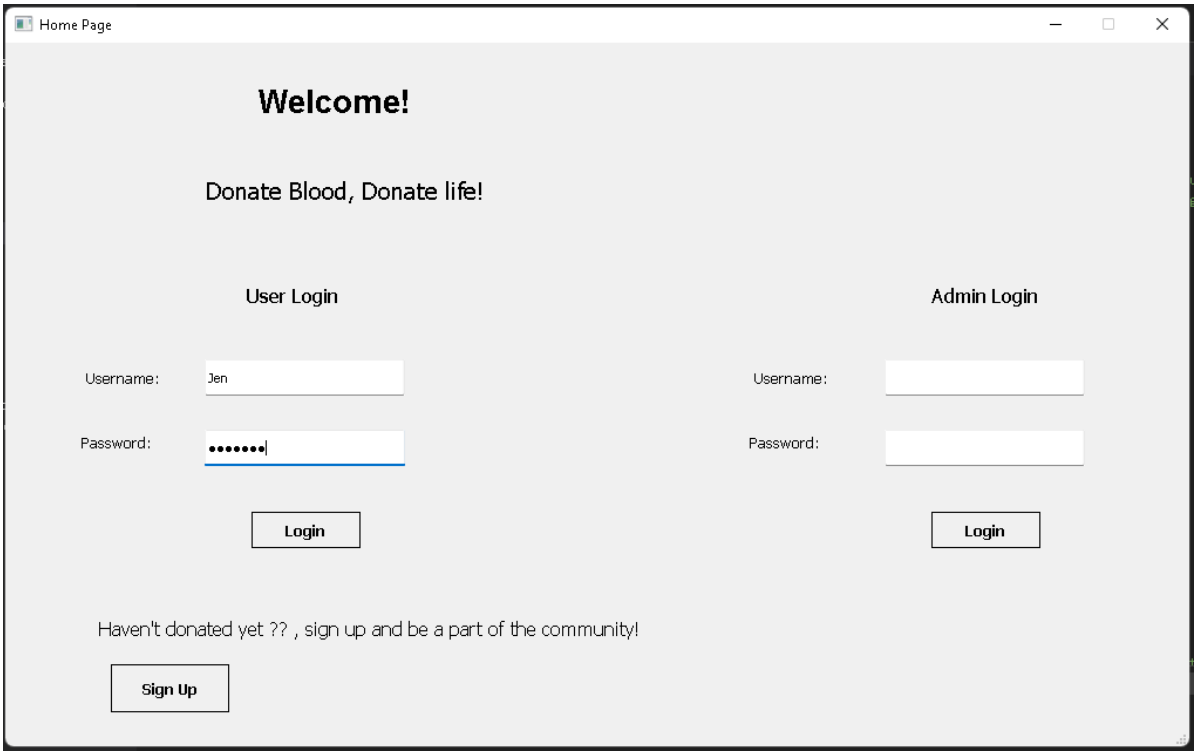


Figure 4.1 : Login page for both user and admin. New users can also register here

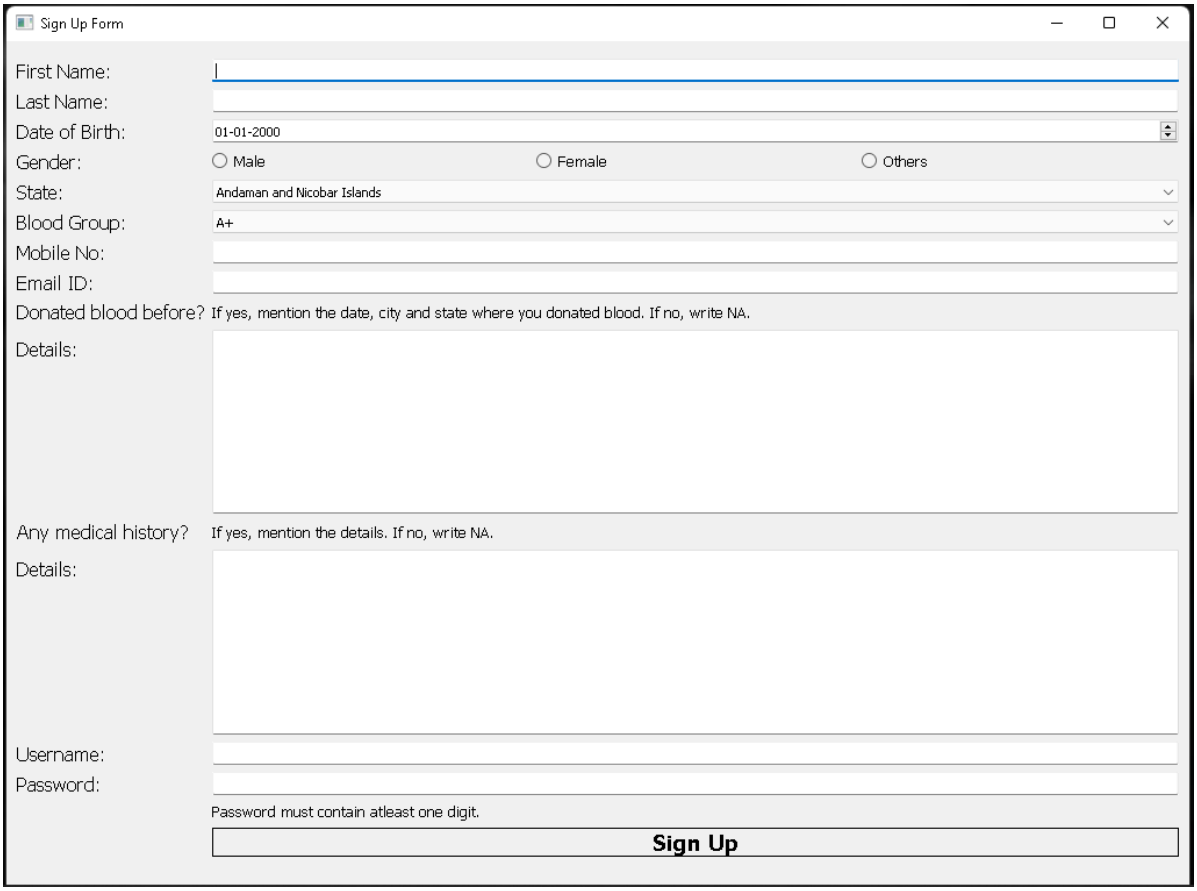


Figure 4.2 : Signup form for new users to register

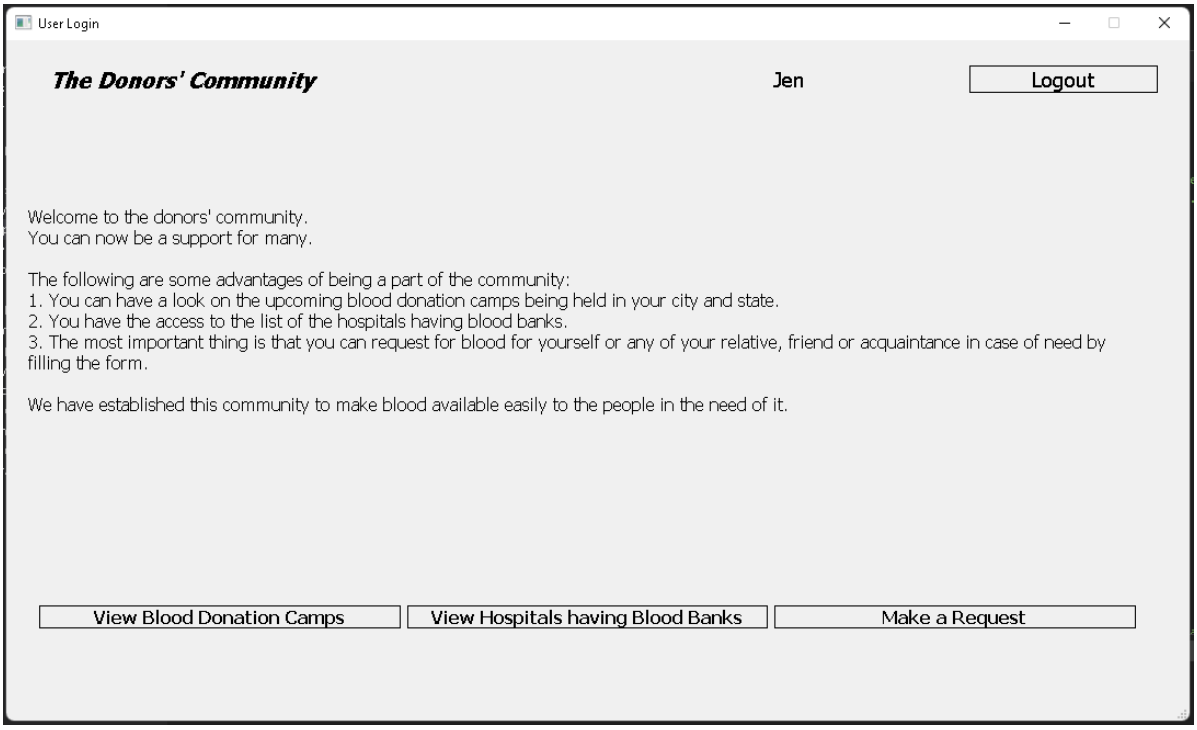


Figure 4.3 : User Panel where one can view hospitals, camp details or place blood request

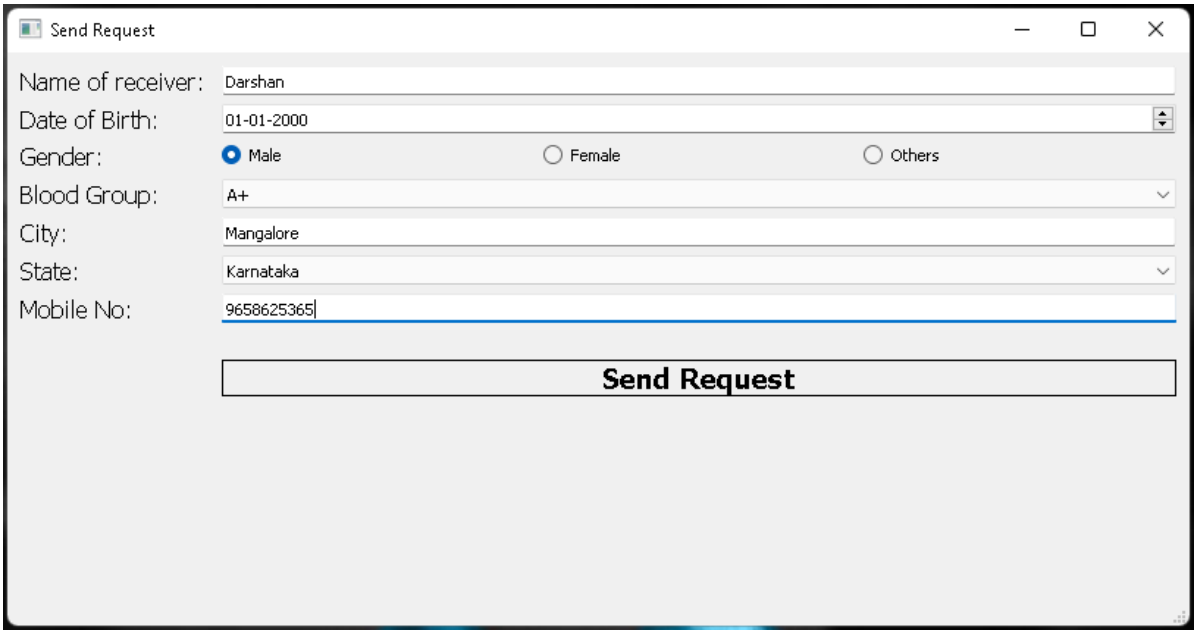


Figure 4.4 : Form for placing blood request

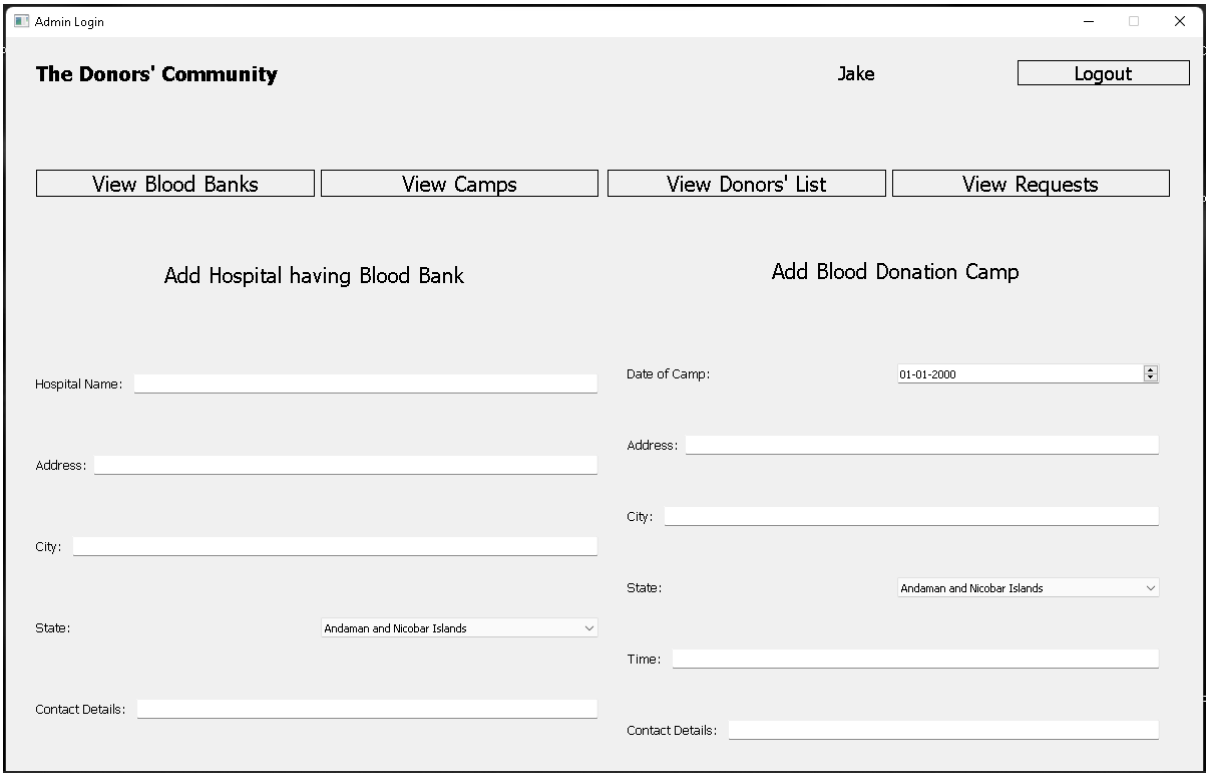
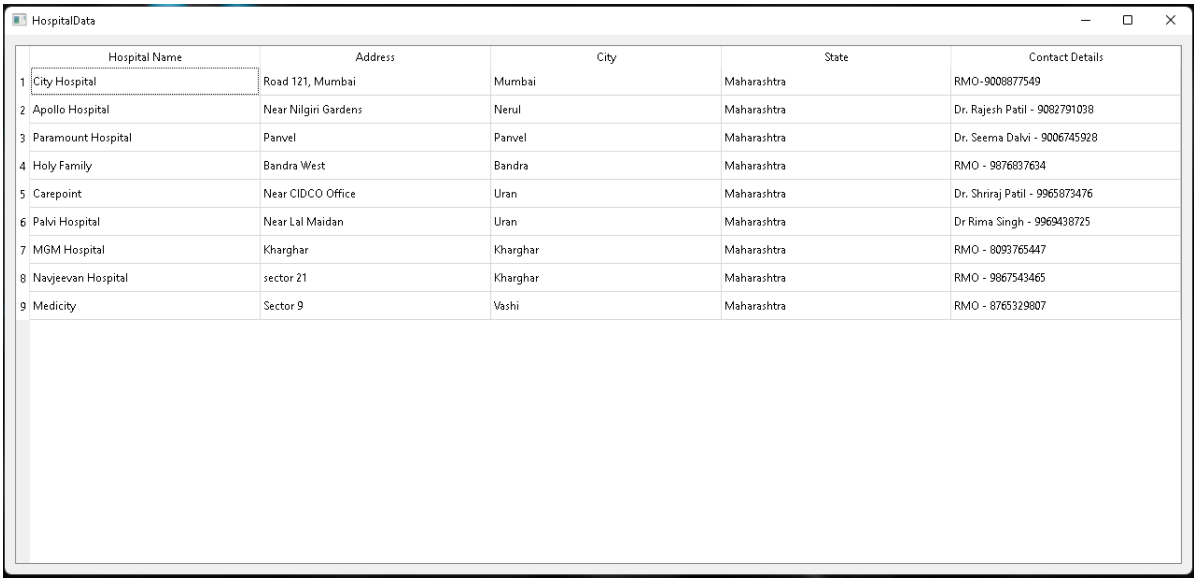
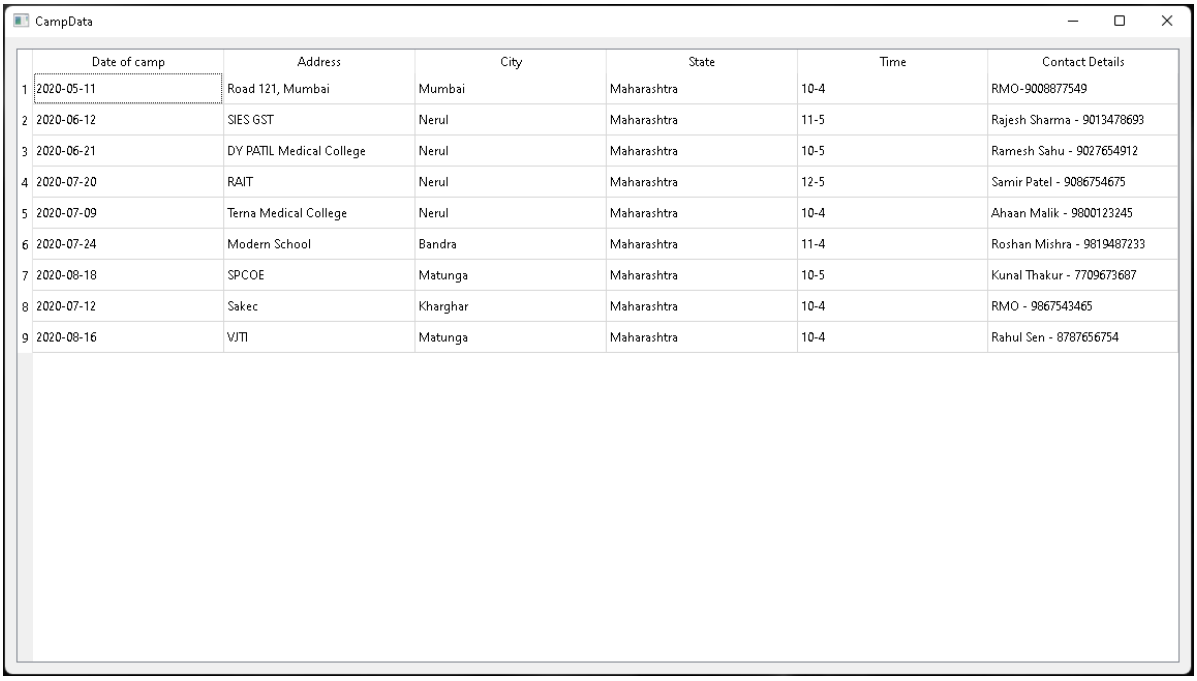


Figure 4.5 : Admin Panel where admin can add hospitals or camps or view other details



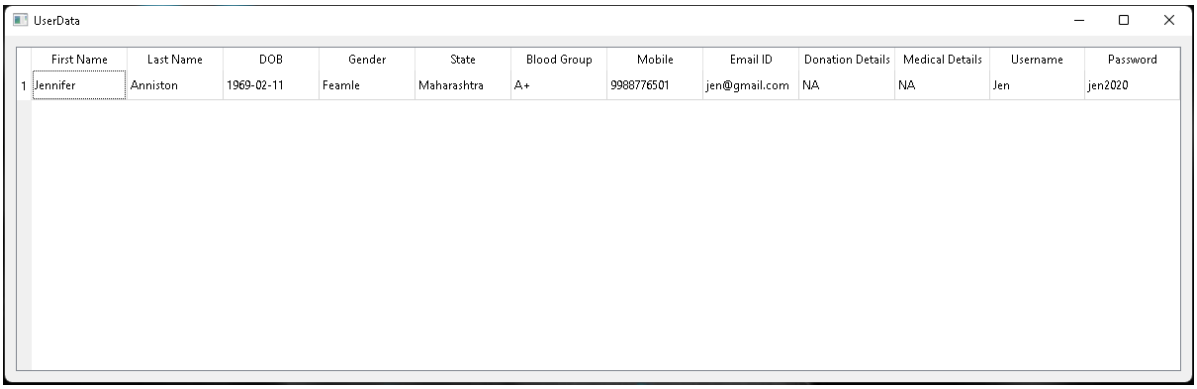
	Hospital Name	Address	City	State	Contact Details
1	City Hospital	Road 121, Mumbai	Mumbai	Maharashtra	RMO-9008877549
2	Apollo Hospital	Near Nilgiri Gardens	Nerul	Maharashtra	Dr. Rajesh Patil - 9082791038
3	Paramount Hospital	Panvel	Panvel	Maharashtra	Dr. Seema Dalvi - 9006745928
4	Holy Family	Bandra West	Bandra	Maharashtra	RMO - 9876837634
5	Carepoint	Near CIDCO Office	Uran	Maharashtra	Dr. Shriraj Patil - 9965873476
6	Palvi Hospital	Near Lal Maidan	Uran	Maharashtra	Dr Rima Singh - 9969438725
7	MGM Hospital	Kharghar	Kharghar	Maharashtra	RMO - 8093765447
8	Navjeevan Hospital	sector 21	Kharghar	Maharashtra	RMO - 9867543465
9	Medicity	Sector 9	Vashi	Maharashtra	RMO - 8765329807

Figure 4.6 : Hospital details



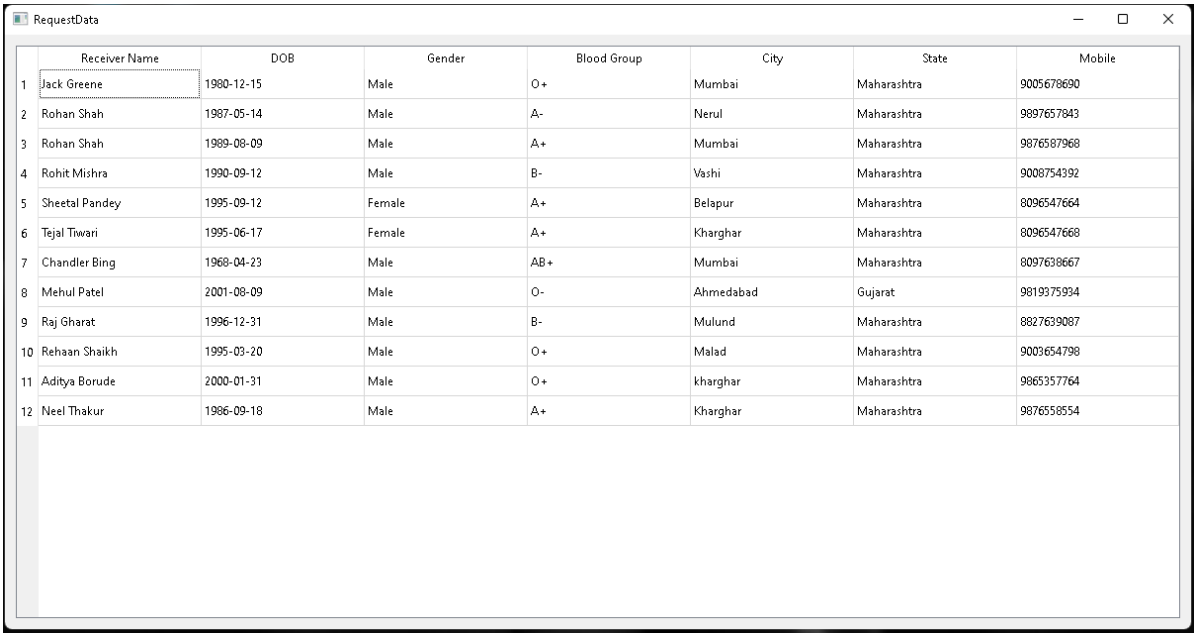
	Date of camp	Address	City	State	Time	Contact Details
1	2020-05-11	Road 121, Mumbai	Mumbai	Maharashtra	10-4	RMO-9008877549
2	2020-06-12	SIES GST	Nerul	Maharashtra	11-5	Rajesh Sharma - 9013478693
3	2020-06-21	DY PATIL Medical College	Nerul	Maharashtra	10-5	Ramesh Sahu - 9027654912
4	2020-07-20	RAIT	Nerul	Maharashtra	12-5	Samir Patel - 9086754675
5	2020-07-09	Terna Medical College	Nerul	Maharashtra	10-4	Ahaan Malik - 9800123245
6	2020-07-24	Modern School	Bandra	Maharashtra	11-4	Roshan Mishra - 9819487233
7	2020-08-18	SPCOE	Matunga	Maharashtra	10-5	Kunal Thakur - 7709673687
8	2020-07-12	Sakec	Kharghar	Maharashtra	10-4	RMO - 9867543465
9	2020-08-16	VJTI	Matunga	Maharashtra	10-4	Rahul Sen - 8787656754

Figure 4.7 : Camp details



	First Name	Last Name	DOB	Gender	State	Blood Group	Mobile	Email ID	Donation Details	Medical Details	Username	Password
1	Jennifer	Anniston	1969-02-11	Feamle	Maharashtra	A+	9988776501	jen@gmail.com	NA	NA	Jen	jen2020

Figure 4.8 : Admin can view Users or the donors list



	Receiver Name	DOB	Gender	Blood Group	City	State	Mobile
1	Jack Greene	1980-12-15	Male	O+	Mumbai	Maharashtra	9005678690
2	Rohan Shah	1987-05-14	Male	A-	Nerul	Maharashtra	9897657843
3	Rohan Shah	1989-08-09	Male	A+	Mumbai	Maharashtra	9876587968
4	Rohit Mishra	1990-09-12	Male	B-	Vashi	Maharashtra	9008754392
5	Sheetal Pandey	1995-09-12	Female	A+	Belapur	Maharashtra	8096547664
6	Tejal Tiwari	1995-06-17	Female	A+	Kharghar	Maharashtra	8096547668
7	Chandler Bing	1968-04-23	Male	AB+	Mumbai	Maharashtra	8097638667
8	Mehul Patel	2001-08-09	Male	O-	Ahmedabad	Gujarat	9819375934
9	Raj Gharat	1996-12-31	Male	B-	Mulund	Maharashtra	8827639087
10	Rehaan Shaikh	1995-03-20	Male	O+	Malad	Maharashtra	9003654798
11	Aditya Borude	2000-01-31	Male	O+	kharghar	Maharashtra	9865357764
12	Neel Thakur	1986-09-18	Male	A+	Kharghar	Maharashtra	9876558554

Figure 4.9 : Admin can view user requests

CHAPTER 5 – CONCLUSION AND FUTURE WORK

Technology is introducing new innovations day by day, thus reducing the time required to do things. The proposed system can be used to reduce the time required to deliver required blood to the needy in cases of emergency. The Android application can be used by the people interested in donating their blood by locating their nearest blood bank. The web application provides a way of communication and synchronization between the hospitals and the blood banks. It also provides them with the facility of communicating with the nearby donors in emergency. The database is a vital aspect of the system. The database of the hospitals and the blood banks must be checked for consistency on regular basis for smooth working of the system

Currently we can only store data about hospitals and camps which has blood stock and the user requests for blood. Now we involve a small community in maintaining this application which we would like to increase in the future days along with adding more features and make its more user friendly.

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