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BLOOD BANK MANAGEMENT SYSTEM

A Project Report of Project - 2

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Under the Supervision of

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**SCHOOL OF COMPUTING AND SCIENCE AND
ENGINEERING**

BONAFIDE CERTIFICATE

Certified that this project report **“BLOOD BANK MANAGEMENT SYSTEM”** is the bonafide work of **“SHUBHAM CHOUDHARY (1713104037)”** who carried out the project work under my supervision.

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BLOOD BANK MANAGEMENT SYSTEM

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1. ABSTRACT

Help Line is a voluntary and non-governmental organization. It maintains Online library of blood donors in India. Sometimes Doctors and Blood bank project have to face the difficulty in finding the blood group Donors at right time. Help Line has attempted to provide the answer by taking upon itself the task of collecting Blood bank project nationwide for the cause and care of people in need.

At any point of time the people who are in need can reach the donors through our search facility. By mobilizing people and organization who desire to make a difference in the lives of people in need. On the basis of humanity, everyone is welcome to register as a blood donor.

Blood Bank Management System (BBMS) is a browser-based system that is designed to store, process, retrieve and analyse information concerned with the administrative and inventory management within a blood bank. This project aims at maintaining all the information pertaining to blood donors, different blood groups available in each blood bank and help them manage in a better way. Aim is to provide transparency in this field, make the process of obtaining blood from a blood bank hassle free and corruption free and make the system of blood bank management effective.

2. INTRODUCTION

The BLOOD BANK MANAGEMENT SYSTEM is great project. this project is designed for successful completion of project on blood bank management system. the basic building aim is to provide blood donation service to the city recently. Blood Bank Management System (BBMS) is a browser based system that is designed to store, process, retrieve and analyze information concerned with the administrative and inventory management within a blood bank. This project aims at maintaining all the information pertaining to blood donors, different blood groups available in each blood bank and help them manage in a better way. Aim is to provide transparency in this field, make the process of obtaining blood from a blood bank hassle free and corruption free and make the system of blood bank management effective.

The *Blood bank system project report* contain information related to blood like

- Blood type
- Date of Donation of blood
- validity of Blood s
- Available Blood group

Bank blood donation system in php is planned to collect blood from many donators in short from various sources and distribute that blood to needy people who require blood. To do all this we require high quality software to manage those jobs. The government spending lot of money to develop high quality “Blood Bank management system project”. For do all those kinds of need blood bank management system project in java contain modules which are include the detail of following areas:

- Blood Donor
- Equipments
- Stick

- Blood Recipient
- Blood collection
- Camp
- Stock details
- blood bank system project Reports
- Blood issued
- Blood bank system project

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3. EXISTING SYSTEM

There are a quite good number of software packages that exist for BLOOD BANK management system. But when I visited most blood bank management system portel. I found that existing system is limited only to those particular blood bank.

Problem Found In Existing System

- At the present there is no software to keep any records in blood bank.
- It becomes difficult to provide any record immediately at times of emergency.
- Required more human efforts in maintaining the branch related information .
- Manually to keep the accounts is also tedious & risky job & to maintain those accounts in ledgers for a long period is also very difficult.
- Difficult to manage and maintain the files.
- Chance of damage of files, if the data is stored in the files for duration of time.
- Privacy is difficult.
- Time consuming is retervieng, storing and updating the data.
- It is difficult to keep track the record about the donor & receiver he has donated or recievered the blood at the last time.
- Attendance is taken manually.
- It need upgradation.

4.PROPOSED SYSTEM

This system is used for maintain whole information about campus.

In this project mainly 3 modules are there.

- Admin
- Donors
- Acceptors

Admin: This module focuses on the both donors & acceptors. Each member in a donor & acceptor is given a user id and password, which identifies him uniquely. The member is given a login form. he enters the login details user id and password. ... The options given to

- Change Password
- Maintain donor details
- Maintain acceptor details
- Update donor details
- Update acceptor details
- Logout

Donor: Each member in a Donor is given a user id and password, which identifies him uniquely. The member is given a login form. he enters the login details user id and password. ... The options given to each member in a staff are

- Change password
- Find a Blood group.
- Why donates blood
- *Logout*

Acceptor: Students. In this you can store the information about Acceptors.

- Change password
- Find a blood group.
- Who needs blood
- Logout

5.Results and discussions

The questionnaire used a 5-scale Likert scale, 5 for strongly agree, 4 for agree, 3 for neutral, 2 for disagree, and 1 for strongly disagree. After administering the questionnaire, the researchers counted the frequency of each question, and computed the mean or average. For mean, 4.51 to 5.00 is interpreted as strongly agree, 3.51 to 4.50 as agree, 2.51 to 3.50 as neutral, 1.51 to 2.50 as disagree, and 1.00 to 1.50 as strongly disagree.

		Manual Blood Bank System		Online Blood Bank Management System	
No	Questions	Mean	Interpretation	Mean	Interpretation
1	The system provides good documentation about the blood donor and its blood donation activities.	2.65	Neutral	3.92	Agree
2	The system can search fast the list of possible blood donors through its donors' files.	2.77	Neutral	3.92	Agree
3	The system can clearly monitor the availability of blood bags or products of all blood types.	2.85	Neutral	3.92	Agree
4	The system has the ability to track to whom the blood bag/product has been given using the patient record.	2.85	Neutral	3.85	Agree

5	The system allows user to know easily the period of expiration of blood bags/products.	2.85	Neutral	4.08	Agree
6	The system has the ability to generate medical reports or statistics easily.	2.96	Neutral	3.77	Agree
7	The system offers an organized and systematized filing or record system.	2.88	Neutral	3.81	Agree
8	The system provides easy to use, efficient, effective system to the users.	2.73	Neutral	3.88	Agree
9	The system allows user to know easily if the person donate blood for the last 3 months.	2.85	Neutral	4.00	Agree
Average Mean		2.82	Neutral	3.91	Agree

Table 1.0 Level of Perceptions on Manual and Online Blood Bank Management System

In general, Table 1 showed the average mean of manual system was 2.82 which was interpreted that the respondents were neutral in the assessment of the manual system. The question of ability of providing good documentation about the donor and blood donation activities was rated the lowest which implied that in most manual systems, most files or records have the tendencies of being either misplaced or lost. Though respondents rated the ability of the system to generate reports the highest criterion in the manual system, still the result showed that respondents felt that report generation in manual-system is time-consuming, and laborious. The results showed that the respondents did not agree nor disagree on the ability of the manual-based system on its efficiency and effectiveness.

On the other hand, Table 1.0 showed that the average mean of 3.91 in the online blood bank management system indicates that the respondents agreed that the online system can provide good documentation about donor and its donor activities, monitoring of blood bags availability, tracking of issued blood bags, identification of expired blood bags, report generation, system efficiency and effectiveness, organized and systematized record system, to name a few. Respondents rated the ability of online system to know period of expiration of blood bags as the highest criterion while the ability of online system to offers systematized and organized filing or record system was rated the lowest criterion. The result showed that the respondents agreed on the ability of online blood bank management system in terms of its efficiency and effectiveness.

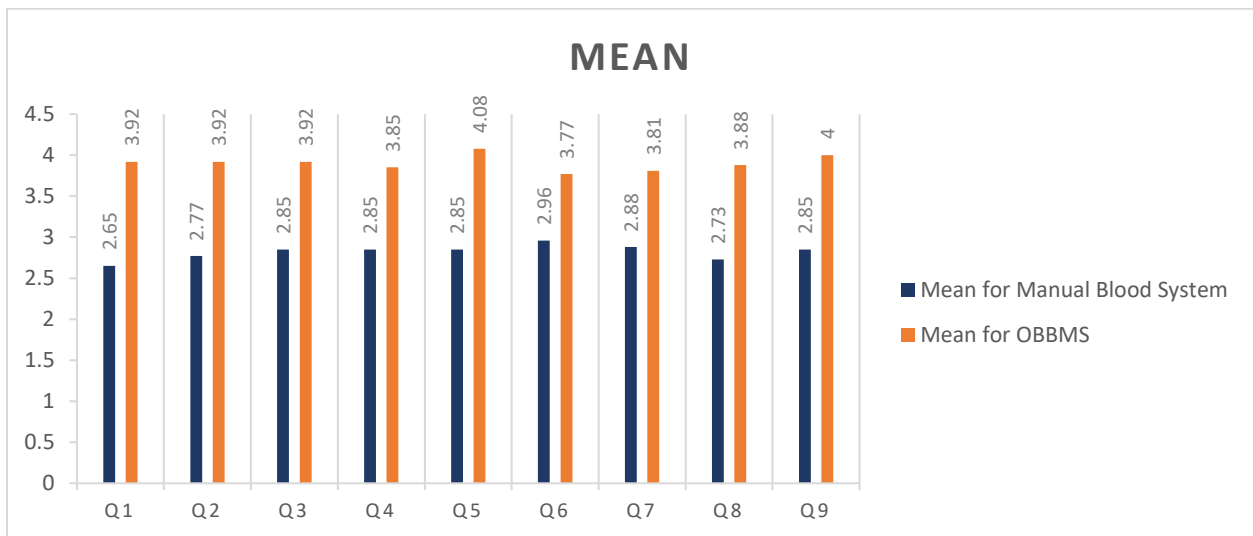


Figure 29: Comparison of Means between the Manual System and the Online System

Table 1.0 and Figure 29 showed that the respondents perceived online blood bank system is much better than the manual-based. The difference showed that the respondents felt and perceived that online blood bank management system offers more advantages and benefits over the manual-based. Indeed, these findings strengthen previous studies that mentioned that manual system has lot of disadvantages to the users and hospital. Subsequently, users prefer online system over manual-based.

	Manual Based	Online Blood Bank Management System
Average Mean	2.82	3.91
Standard Deviation	0.0910	0.0944
No. of Questions	9	9

Table 2.0 Average Mean and Standard Deviation of Both Systems

A t-test, a type of inferential statistic, was used to determine if there is a significant difference between the means of two groups, which may be related in certain features. T-test was used as a hypothesis-testing tool that allows testing of an assumption applicable to a population. Based on Table 2.0 and using the t-test formula,

$$t = \frac{(\bar{x}_1 - \bar{x}_2)}{\sqrt{\frac{(s_1)^2}{n_1} + \frac{(s_2)^2}{n_2}}}$$

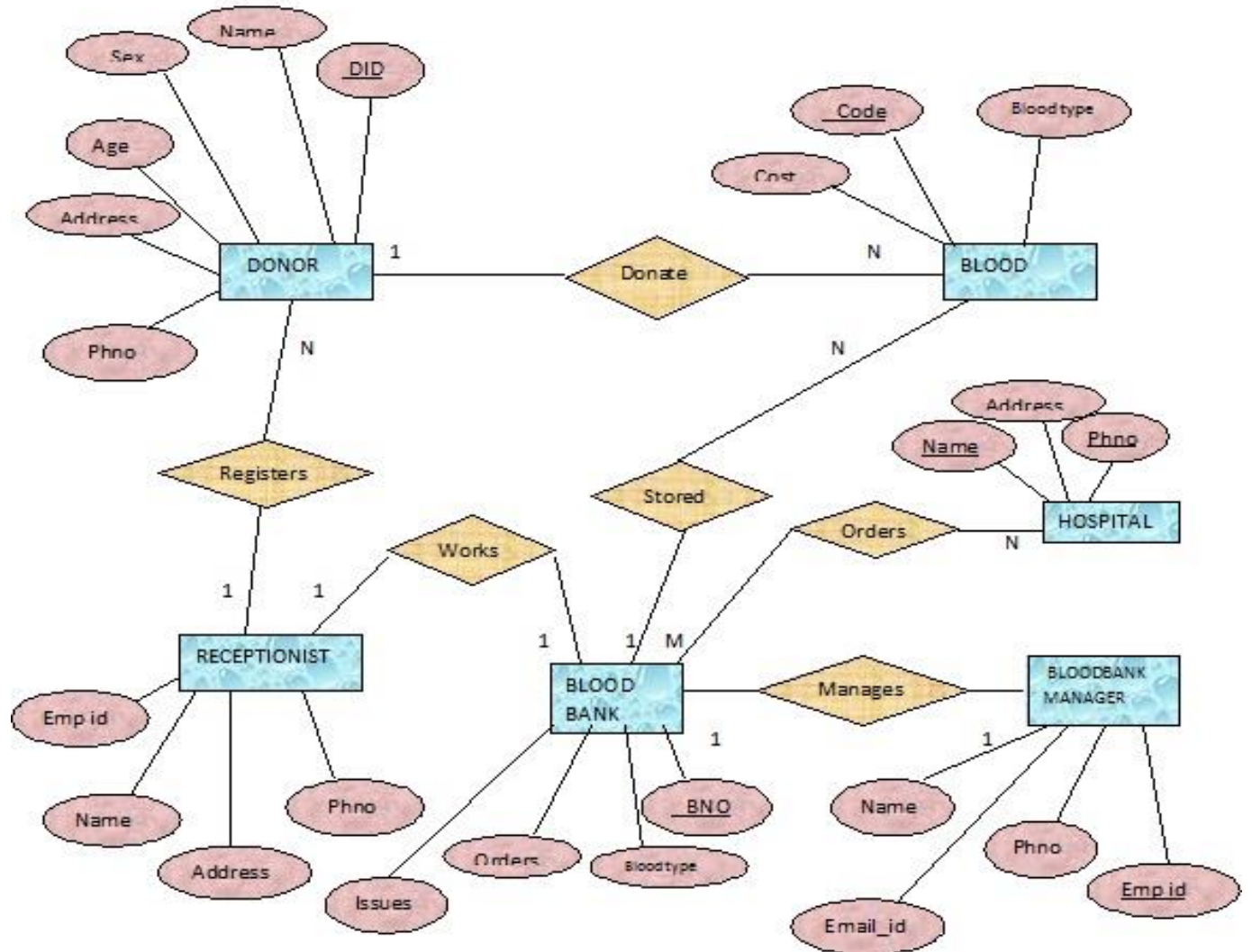
, the calculated t-value is 24.94

while the tabled t-value at 5% significance (95% confidence) is 1.86. Subsequently, since the calculated t-value is greater than the tabled t-value, the decision is to reject the null hypothesis H_0 , and accept the alternative hypothesis H_1 . This means that the online blood bank management system offers a lot of advantages and benefits to the users compared to the manual system.

6.ARCHITECTURE DIAGRAM:

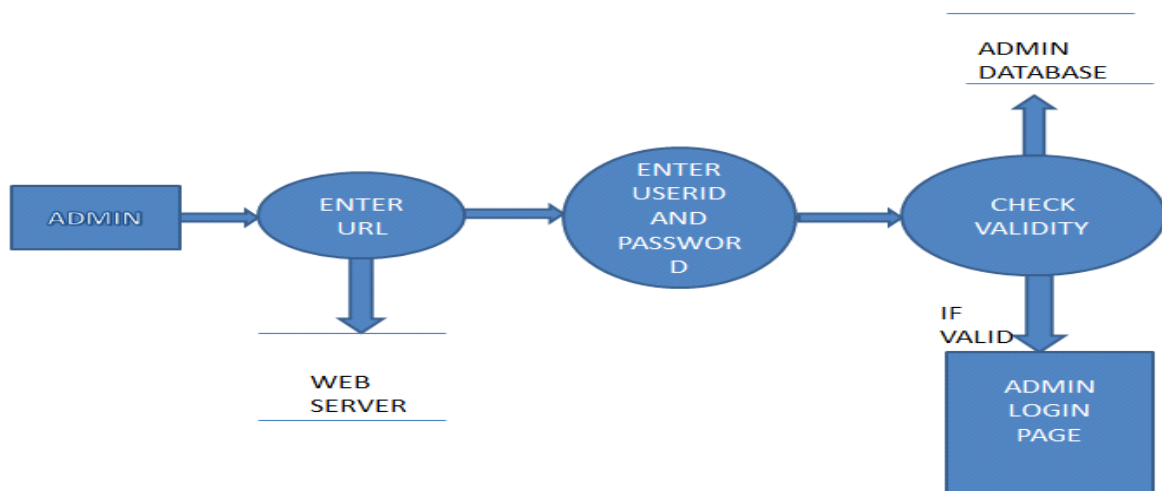
E-R DIAGRAM

THE COMPLETE ER- DIAGRAM



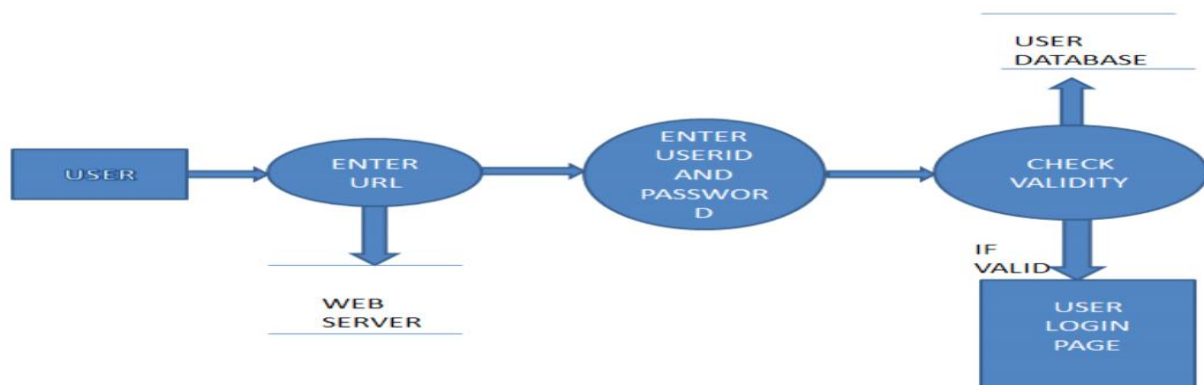
DFD FOR ADMIN LOGIN:

After entering to the home page of the website , admin can choose the ADMIN LOGIN option where they are asked to enter username & password , and if he/she is a valid user then admin login page will be displayed.



DFD FOR USER LOGIN:

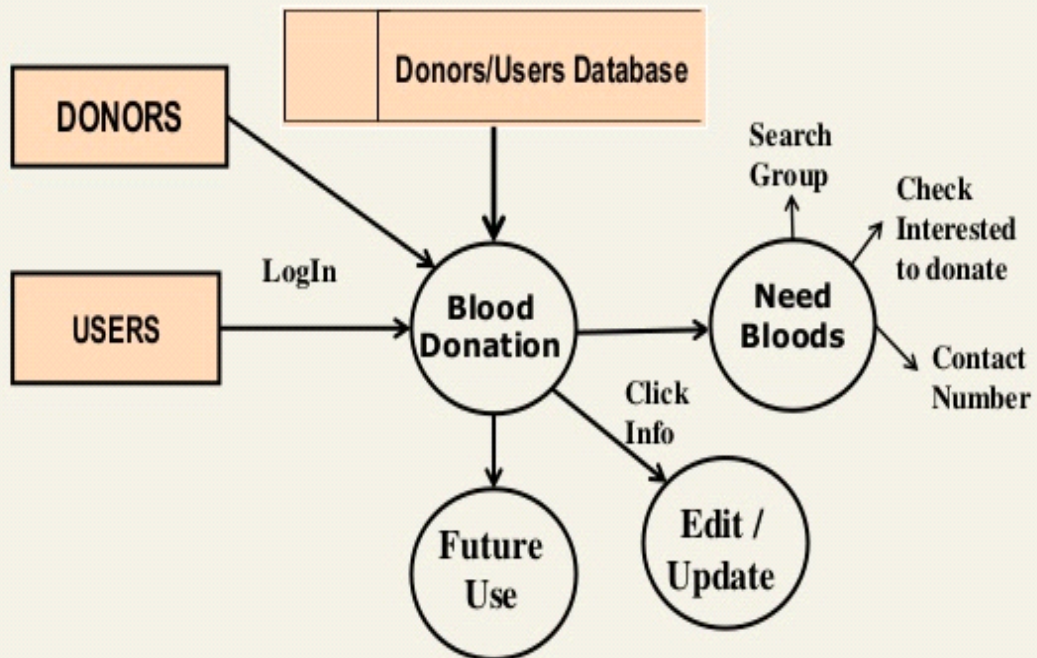
After entering to the home page of the website , student can choose the USER LOGIN option where they are asked to enter username & password , and if he/she is a valid user then a user login page will be displayed.



DFD FOR BLOOD DONATION PROCESS:

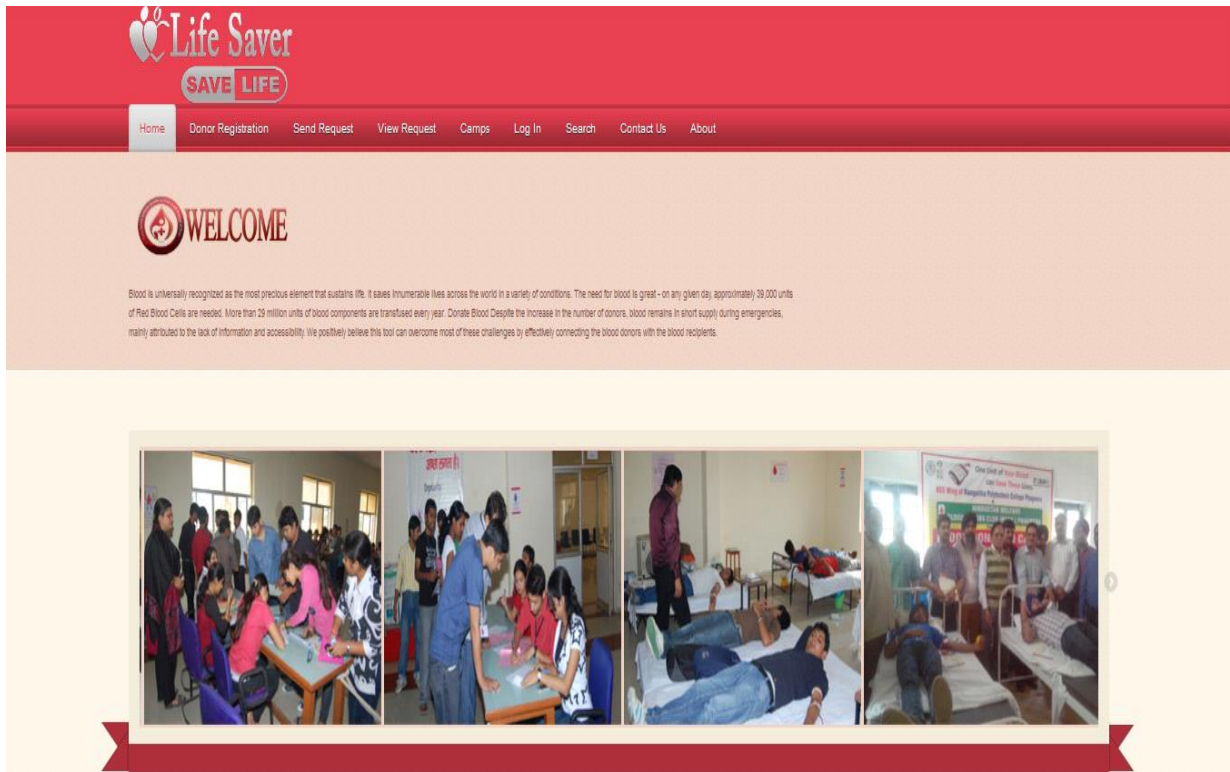
Data Flow Diagram

Diagram2 [Blood Donation process]



7. Screenshots:

Home page:



DONOR REGISTRATION PAGE:

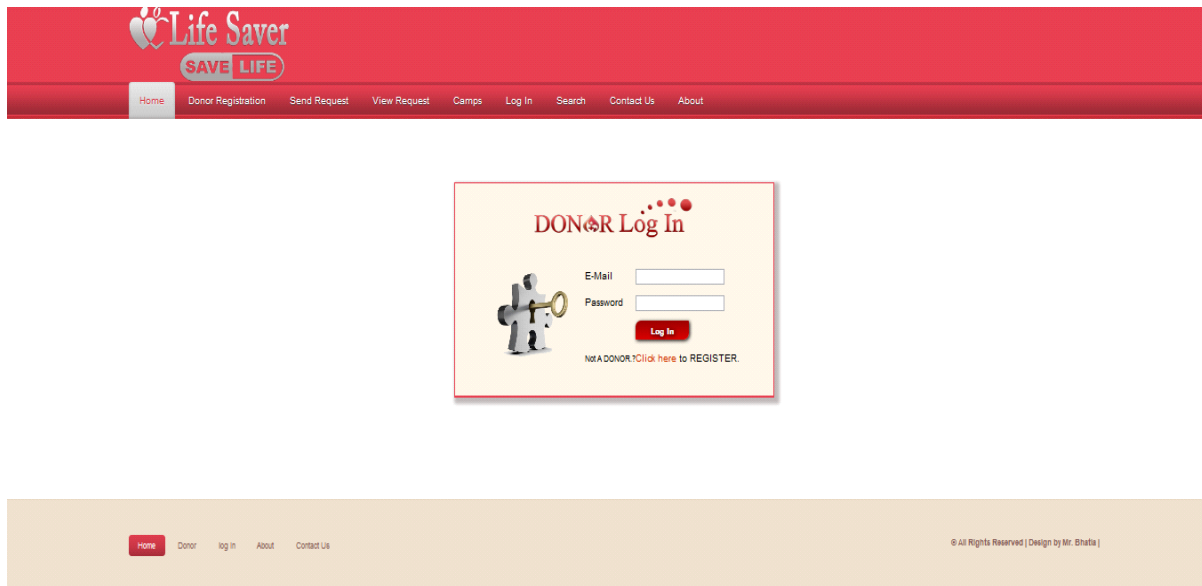
The screenshot shows the 'Donor Registration' page. The header is red with the 'Life Saver' logo and the tagline 'SAVE LIFE'. A navigation menu includes 'Home', 'Donor Registration', 'Send Request', 'View Request', 'Camps', 'Log In', 'Search', 'Contact Us', and 'About'. The main content area is a registration form with the following fields:

- Donor Name:
- Gender: Male Female
- Age:
- Mobile No:
- Blood Group:
- E-Mail:
- Password:
- Confirm Password:
- Uplode Pic:

Below the form is a red button labeled 'Resitred'. On the left side of the form, there is a vertical banner with the text 'I WANT TO BECOME A DONOR'.

At the bottom of the page, there is a footer with a navigation menu: 'Home', 'Donor', 'log In', 'About', 'Contact Us'. On the right side of the footer, there is a copyright notice: '© All Rights Reserved | Design by Mr. Bhatia |'.

DONOR LOGIN PAGE:



BLOOD REQUEST PAGE:



Admin login page:

Admin Log In



User Name

Password

[Log In](#)

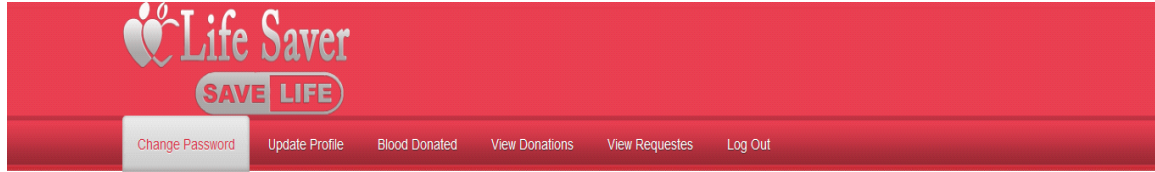
Admin home page:

Admin Links

- [Add User](#)
- [Update User](#)
- [Delete User](#)
- [Add City](#)
- [Update City](#)
- [Delete City](#)
- [Add State](#)
- [Update State](#)
- [Delete State](#)
- [Add Camp](#)
- [Update Camp](#)
- [Delete Camp](#)
- [Add Blood Group](#)
- [Update Blood Group](#)
- [Delete Blood Group](#)
- [Add Gallery](#)
- [Delete Gallery](#)
- [Add News](#)
- [Delete News](#)
- [Add Advertisement](#)
- [Delete Advertisement](#)
- [View City](#)
- [View State](#)
- [View Advertisement](#)
- [View News](#)
- [View Blood Group](#)
- [View camps](#)



DONOR HOME PAGE:



- [Change Password](#)
- [Update Profile](#)
- [Blood Donated](#)
- [View Donations](#)
- [View Requestes](#)
- [Log Out](#)



8.Scope of Future Application

BLOOD BANK MANAGEMENT is a software application to build such a way that it should suits for all type of blood banks in **future**.

One important future scope is availability of location-based blood bank details and extraction of location-based donor's detail, which is very helpful to the acceptant people. All the time the network facilities cannot be use. This time donor request does not reach in proper time, this can be avoided through adding some message sending procedure this will help to find proper blood donor in time. This will provide availability of blood in time.

9.Summary and Conclusion

With the theoretical inclination of our syllabus it becomes very essential to take the utmost advantage of any opportunity of gaining practical experience that comes along. The building blocks of this Major Project "BLOOD BANK Management System" was one of these opportunities. It gave us the requisite practical knowledge to supplement the already taught theoretical concepts thus making us more competent as a computer engineer. The project from a personal point of view also helped us in understanding the following aspects of project development:

- The planning that goes into implementing a project.
- The importance of proper planning and an organized methodology.
- The key element of team spirit and co-ordination in a successful project.

The project also provided us the opportunity of interacting with our teachers and to gain from their best experience